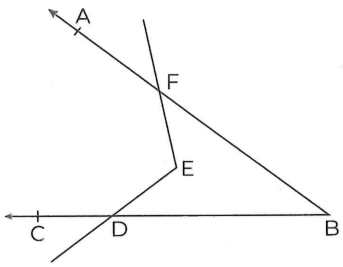
LINES AND ANGLES

DOĞRUDA AÇI

CHAPTER | BÖLÜM 01

IRANINOVIN

1.



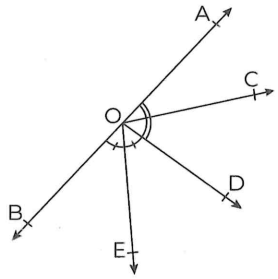
$m(\widehat{ABC}) \cap \widehat{FED}$ **ifadesi aşağıdakilerden hangisine eşittir?**

$(\widehat{ABC}) \cap \widehat{FED}$ is equal to which of the following?

A) [DE] ∪ [EF] B) $m(\widehat{FBD})$ C) $m(\widehat{FED})$

D) BDEF E) {F, B, D, E}

2.



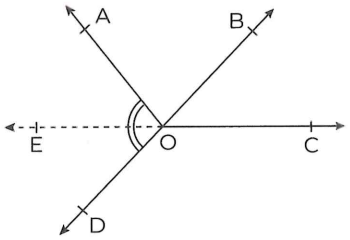
A, O, B **doğrusal** (linear)

$m(\widehat{AOC}) = m(\widehat{COD}), m(\widehat{DOE}) = m(\widehat{EOB}) = 70°$

$\Rightarrow m(\widehat{AOC}) = ?$

A) 10 B) 15 C) 20 D) 28 E) 30

3.



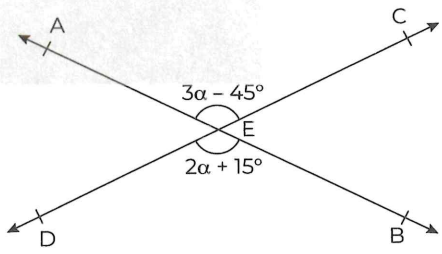
B, O, D **doğrusal** (linear), [OA] ⊥ [OB]

$m(\widehat{AOE}) = m(\widehat{EOD})$

$\Rightarrow m(\widehat{DOC}) = ?$

A) 110 B) 115 C) 120 D) 135 E) 150

4.



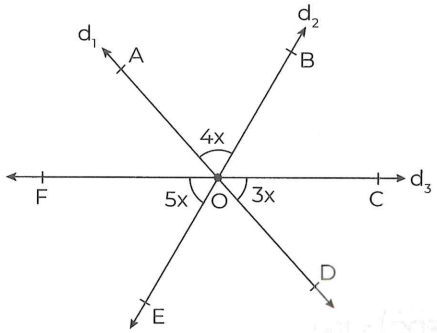
$m(\widehat{AEC}) = 3\alpha - 45°$, $m(\widehat{DEB}) = 2\alpha + 15°$

$\Rightarrow m(\widehat{CEB}) = ?$

A) 30 B) 45 C) 90 D) 135 E) 145

PUZA ACADEMY

5.

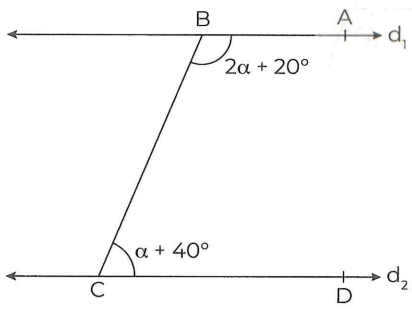


$m(\widehat{COD}) = 3x$, $m(\widehat{AOB}) = 4x$, $m(\widehat{FOE}) = 5x$

$\Rightarrow x = ?$

A) 8 B) 10 C) 12 D) 15 E) 18

6.

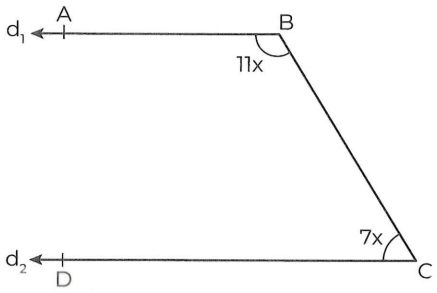


$d_1 // d_2$, $m(\widehat{ABC}) = 2\alpha + 20°$, $m(\widehat{DCB}) = \alpha + 40°$

$\Rightarrow \alpha = ?$

A) 20 B) 25 C) 30 D) 40 E) 45

7.

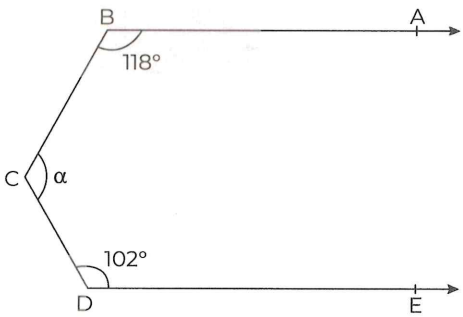


$d_1 // d_2$, $m(\widehat{ABC}) = 11x$, $m(\widehat{BCD}) = 7x$

$\Rightarrow x = ?$

A) 5 B) 8 C) 10 D) 12 E) 15

8.



$[BA // [DE$, $m(\widehat{ABC}) = 118°$, $m(\widehat{CDE}) = 102°$

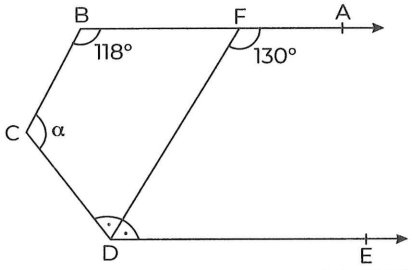
$m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$

A) 100 B) 120 C) 140 D) 142 E) 148

PUZA ACADEMY

IRANINOVIN

9.



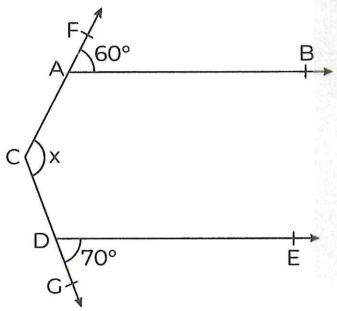
$[BA \parallel [DE$, $m(\widehat{ABC}) = 118°$, $m(\widehat{AFD}) = 130°$

$m(\widehat{CDF}) = m(\widehat{FDE})$, $m(\widehat{BCD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 112 C) 138 D) 142 E) 150

10.

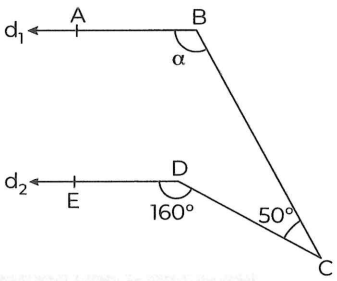


$[AB \parallel [DE$, $m(\widehat{FAB}) = 60°$, $m(\widehat{EDG}) = 70°$

$m(\widehat{ACD}) = x \Rightarrow x = ?$

A) 100 B) 110 C) 120 D) 125 E) 130

11.



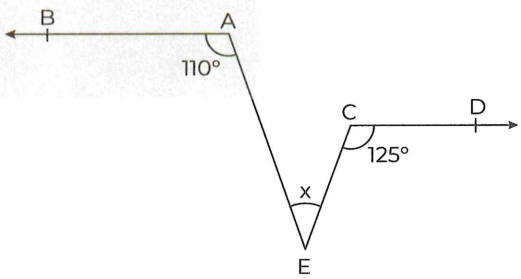
$d_1 \parallel d_2$, $m(\widehat{EDC}) = 160°$, $m(\widehat{BCD}) = 50°$

$m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 110 C) 115 D) 120 E) 130

12.



$[AB \parallel [CD$, $m(\widehat{EAB}) = 110°$, $m(\widehat{ECD}) = 125°$

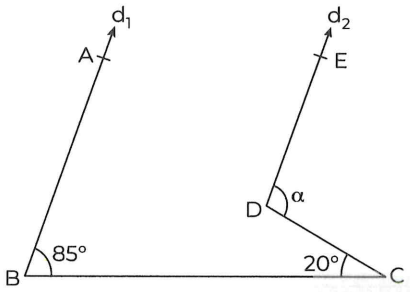
$m(\widehat{AEC}) = x$

$\Rightarrow x = ?$

A) 50 B) 55 C) 60 D) 65 E) 70

PUZA ACADEMY

13.



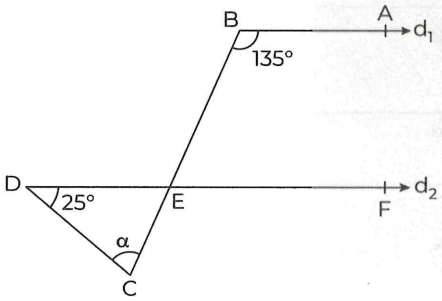
$d_1 // d_2$

$m(\widehat{ABC}) = 85°$, $m(\widehat{BCD}) = 20°$, $m(\widehat{EDC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 85 B) 90 C) 95 D) 100 E) 105

14.

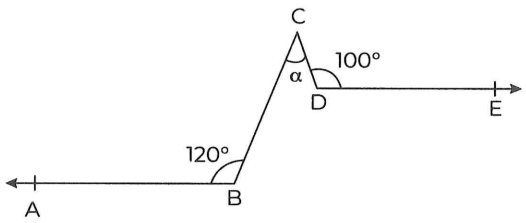


$d_1 // d_2$, $m(\widehat{EDC}) = 25°$, $m(\widehat{CBA}) = 135°$

$m(\widehat{DCB}) = \alpha \Rightarrow \alpha = ?$

A) 70 B) 80 C) 100 D) 110 E) 120

15.



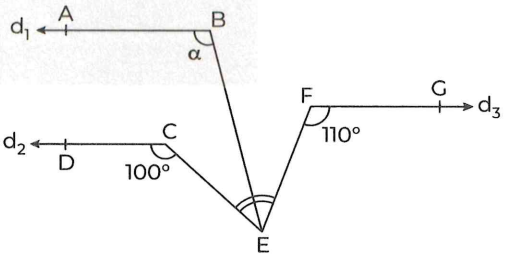
$[BA // [DE$, $m(\widehat{CDE}) = 100°$, $m(\widehat{ABC}) = 120°$

$m(\widehat{BCD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

16.



$d_1 // d_2 // d_3$, $m(\widehat{DCE}) = 100°$, $m(\widehat{EFG}) = 110°$

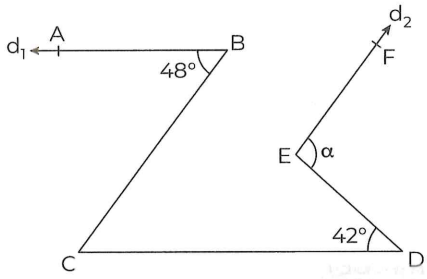
$m(\widehat{CEB}) = m(\widehat{BEF})$, $m(\widehat{ABE}) = \alpha \Rightarrow \alpha = ?$

A) 75 B) 80 C) 85 D) 90 E) 95

PUZA ACADEMY

IRANINOVIN

17.



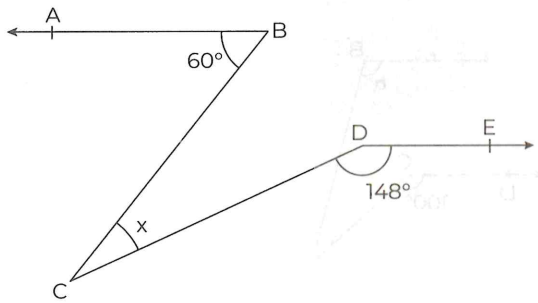
[BA // [CD] , [BC] // [EF

$m(\widehat{EDC}) = 42°$, $m(\widehat{ABC}) = 48°$, $m(\widehat{FED}) = \alpha$

$\Rightarrow \alpha = ?$

A) 80 B) 88 C) 90 D) 92 E) 100

18.



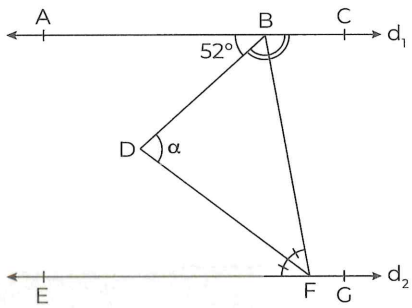
[BA // [DE,

$m(\widehat{ABC}) = 60°$, $m(\widehat{CDE}) = 148°$, $m(\widehat{BCD}) = x$

$\Rightarrow x = ?$

A) 22 B) 24 C) 26 D) 28 E) 30

19.

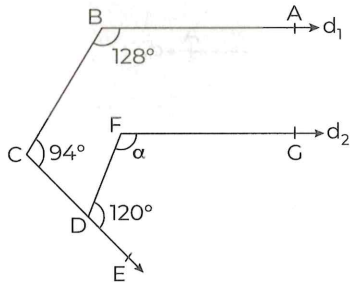


$d_1 // d_2$, $m(\widehat{CBF}) = (\widehat{BDF})$, $m(\widehat{BFD}) = m(\widehat{DFE})$

$m(\widehat{ABD}) = 52°$, $m(\widehat{BDF}) = \alpha$ $\Rightarrow \alpha = ?$

A) 48 B) 84 C) 98 D) 110 E) 112

20.



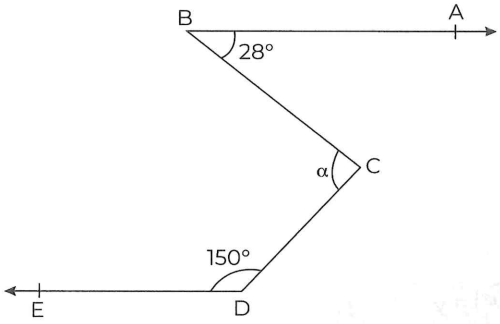
$d_1 // d_2$, $m(\widehat{BCE}) = 94°$, $m(\widehat{FDE}) = 120°$

$m(\widehat{ABC}) = 128°$, $m(\widehat{GFD}) = \alpha$ $\Rightarrow \alpha = ?$

A) 102 B) 128 C) 132 D) 138 E) 144

PUZA ACADEMY

21.



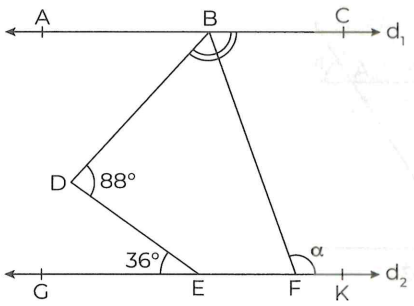
$[BA \parallel [DE$, $m(\widehat{ABC}) = 28°$, $m(\widehat{CDE}) = 150°$

$m(\widehat{BCD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 28 B) 30 C) 38 D) 58 E) 132

22.

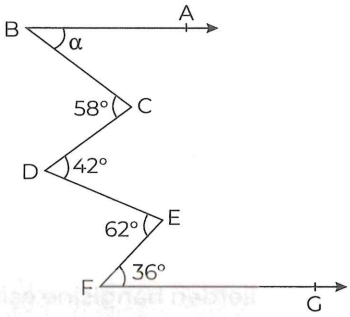


$d_1 \parallel d_2$, $m(\widehat{CBF}) = (\widehat{FBD})$, $m(\widehat{DEG}) = 36°$

$m(\widehat{BDE}) = 88°$, $m(\widehat{BFK}) = \alpha$ $\Rightarrow \alpha = ?$

A) 106 B) 108 C) 112 D) 116 E) 120

23.



$[BA \parallel [FG$, $m(\widehat{BCD}) = 58°$, $m(\widehat{CDE}) = 42°$

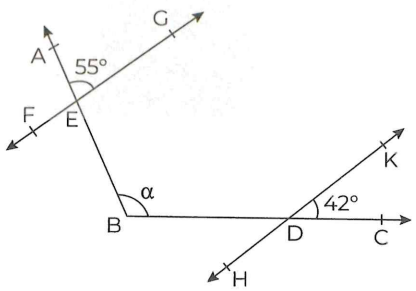
$m(\widehat{DEF}) = 62°$, $m(\widehat{EFG}) = 36°$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 38 B) 40 C) 42 D) 48 E) 52

PUZA ACADEMY

24.



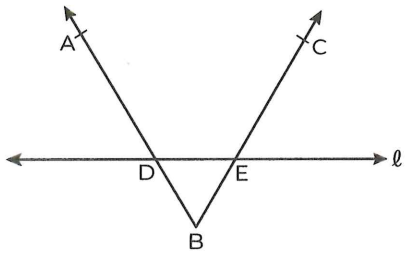
$FG \parallel HK$, $m(\widehat{AEG}) = 55°$, $m(\widehat{KDC}) = 42°$

$m(\widehat{ABC}) = \alpha$ $\Rightarrow \alpha = ?$

A) 83 B) 87 C) 92 D) 97 E) 103

IRANINOVIN

1.



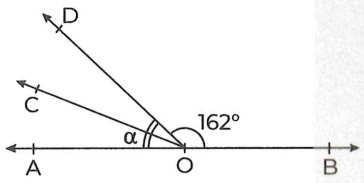
$\widehat{ABC} \cap \ell$ **ifadesi aşağıdakilerden hangisine eşittir?**

This expression is equivalent to which of the following?

A) $m(\widehat{ABC})$ B) {D, E} C) [DE]

D) ADEC E) [DE] ∪ $m(\widehat{DBE})$

2.



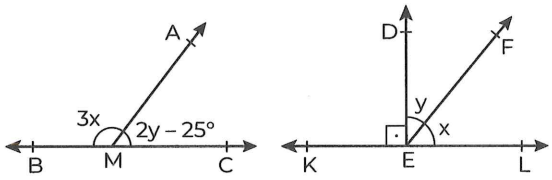
A, O, B **doğrusal** (linear)

$m(\widehat{DOC}) = m(\widehat{COA}) = \alpha$

$m(\widehat{DOB}) = 162° \Rightarrow \alpha = ?$

A) 8 B) 9 C) 11 D) 12 E) 14

3.



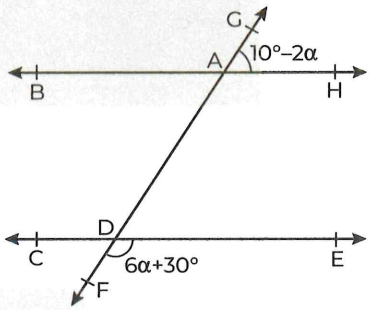
$m(\widehat{AMB}) = 3x, m(\widehat{CMA}) = 2y - 25°, m(\widehat{FEL}) = x$

$m(\widehat{DEF}) = y$

$\Rightarrow y = ?$

A) 54 B) 55 C) 60 D) 65 E) 70

4.



BH // CE, $m(\widehat{GAH}) = 10° - 2\alpha$,

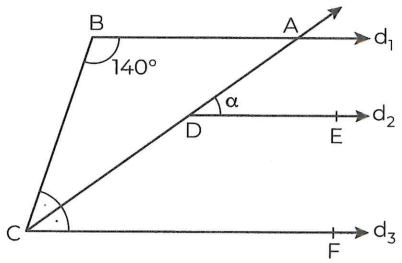
$m(\widehat{EDF}) = 6\alpha + 30°$

$\Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 35 E) 40

PUZA ACADEMY

5.



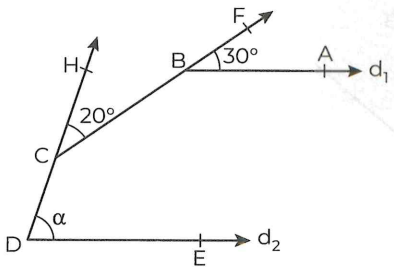
$d_1 // d_2 // d_3$, $m(\widehat{BCA}) = m(\widehat{ACF})$, $m(\widehat{ABC}) = 140°$

$m(\widehat{ADE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

6.



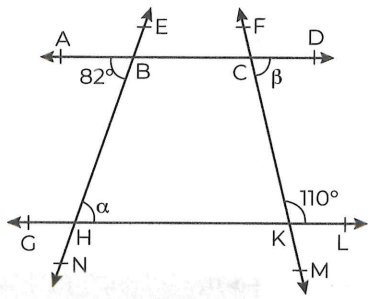
$d_1 // d_2$, $m(\widehat{ABF}) = 30°$, $m(\widehat{HCF}) = 20°$

$m(\widehat{EDH}) = \alpha$

$\Rightarrow \alpha = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

7.



AD // GL , $m(\widehat{ABN}) = 82°$, $m(\widehat{FKL}) = 110°$

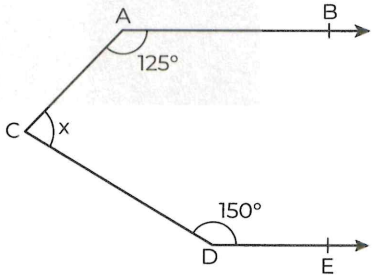
$m(\widehat{EHL}) = \alpha$, $m(\widehat{DCM}) = \beta$

$\Rightarrow \alpha - \beta = ?$

A) 10 B) 12 C) 20 D) 28 E) 30

PUZA ACADEMY

8.



[AB // [DE, $m(\widehat{BAC}) = 125°$, $m(\widehat{CDE}) = 150°$

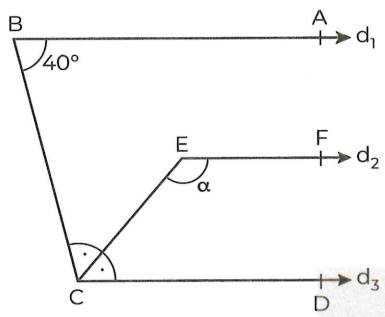
$m(\widehat{ACD}) = x$

$\Rightarrow x = ?$

A) 70 B) 75 C) 80 D) 85 E) 90

IRANINOVIN

9.



$d_1 // d_2 // d_3$,

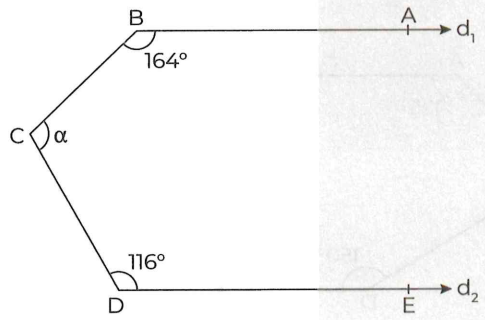
$m(\widehat{ABC}) = 40°$, $m(\widehat{BCE}) = m(\widehat{ECD})$

$m(\widehat{CEF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 115 B) 110 C) 100 D) 90 E) 85

10.



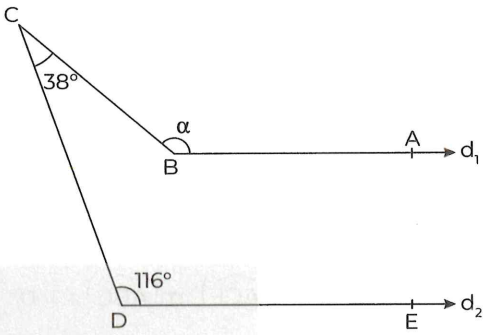
$d_1 // d_2$

$m(\widehat{CDE}) = 116°$, $m(\widehat{ABC}) = 164°$, $m(\widehat{BCD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 70 B) 74 C) 76 D) 80 E) 84

11.



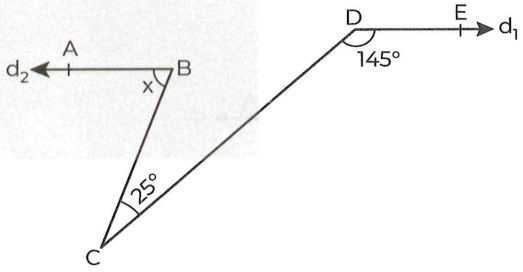
$d_1 // d_2$

$m(\widehat{BCD}) = 38°$, $m(\widehat{CDE}) = 116°$, $m(\widehat{CBA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 142 B) 154 C) 156 D) 168 E) 174

12.



$d_1 // d_2$,

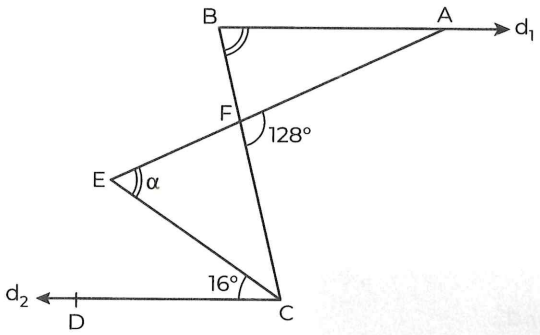
$m(\widehat{BCD}) = 25°$, $m(\widehat{CDE}) = 145$, $m(\widehat{ABC}) = x$

$\Rightarrow x = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

PUZA ACADEMY

13.



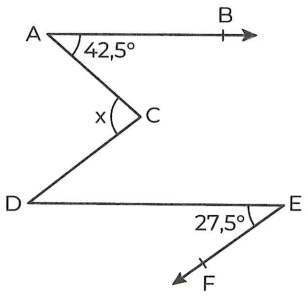
$d_1 // d_2$

$m(\widehat{ABC}) = m(\widehat{AEC}) = \alpha$, $m(\widehat{DCE}) = 16°$

$m(\widehat{AFC}) = 128° \Rightarrow \alpha = ?$

A) 68 B) 70 C) 72 D) 74 E) 78

14.



[AB // [DE], [DC] // [EF,

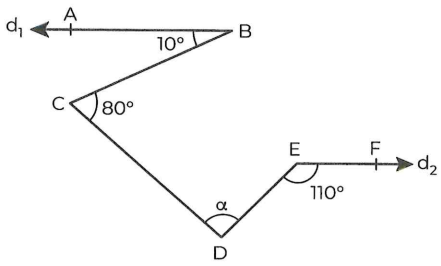
$m(\widehat{BAC}) = 42,5°$, $m(\widehat{ACD}) = x$

$m(\widehat{DEF}) = 27,5°$

$\Rightarrow x = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

15.



$d_1 // d_2$,

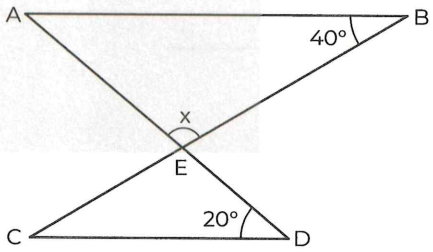
$m(\widehat{ABC}) = 10°$, $m(\widehat{BCD}) = 80°$, $m(\widehat{FED}) = 110°$

$m(\widehat{CDE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 70 B) 60 C) 40 D) 20 E) 10

16.



[AB] // [CD],

$m(\widehat{CBA}) = 40°$, $m(\widehat{ADC}) = 20°$, $m(\widehat{AEB}) = x$

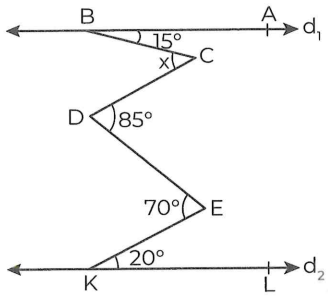
$\Rightarrow x = ?$

A) 110 B) 115 C) 120 D) 125 E) 130

PUZA ACADEMY

IRANINOVIN

17.



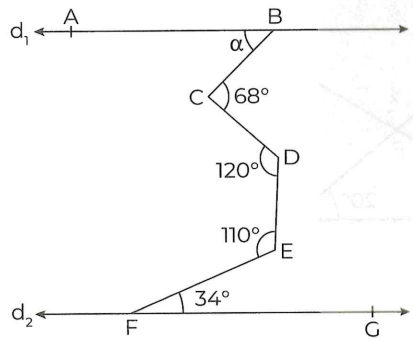
$d_1 // d_2$, $m(\widehat{ABC}) = 15°$, $m(\widehat{CDE}) = 85°$

$m(\widehat{DEK}) = 70°$, $m(\widehat{EKL}) = 20°$, $m(\widehat{BCD}) = x$

$\Rightarrow x = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

18.



$d_1 // d_2$,

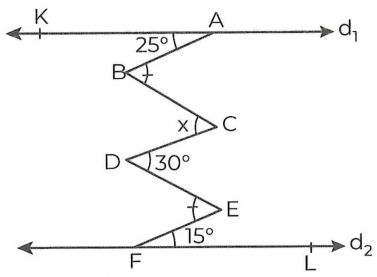
$m(\widehat{EFG}) = 34°$, $m(\widehat{BCD}) = 68°$, $m(\widehat{DEF}) = 110°$

$m(\widehat{CDE}) = 120°$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 42 B) 48 C) 52 D) 56 E) 60

19.



$d_1 // d_2$,

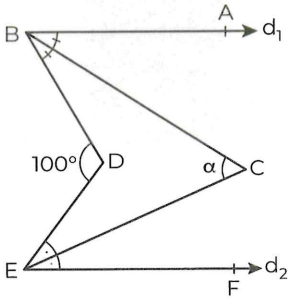
$m(\widehat{KAB}) = 25°$, $m(\widehat{CDE}) = 30°$, $m(\widehat{EFL}) = 15°$

$m(\widehat{ABC}) = m(\widehat{DEF})$, $m(\widehat{BCD}) = x$

$\Rightarrow x = ?$

A) 15 B) 20 C) 25 D) 30 E) 35

20.



$d_1 // d_2$,

$m(\widehat{ABC}) = m(\widehat{CBD})$, $m(\widehat{DEC}) = m(\widehat{FEC})$

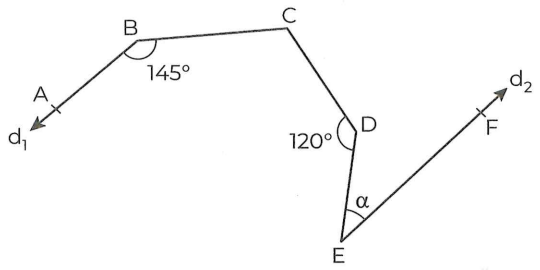
$m(\widehat{BDE}) = 100°$, $m(\widehat{BCE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 40 B) 45 C) 50 D) 55 E) 60

PUZA ACADEMY

21.



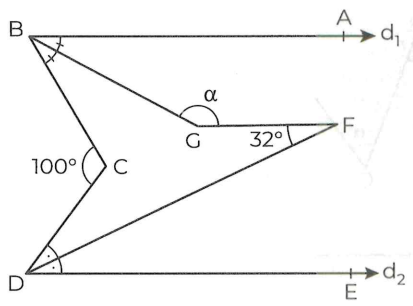
$d_1 // d_2$, $[BC] \perp [DE]$

$m(\widehat{CDE}) = 120°$, $m(\widehat{ABC}) = 145°$, $m(\widehat{DEF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 35 B) 40 C) 45 D) 50 E) 55

22.



$d_1 // d_2$,

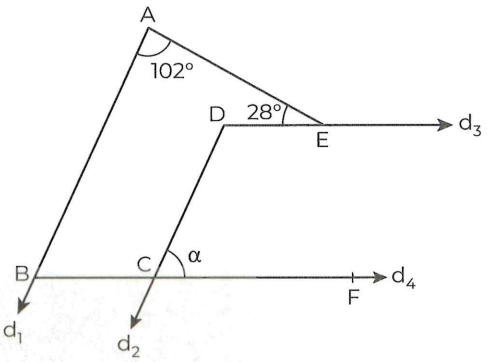
$m(\widehat{ABG}) = m(\widehat{GBC})$, $m(\widehat{CDE}) = m(\widehat{FDE})$

$m(\widehat{BCD}) = 128°$, $m(\widehat{ABG}) = \alpha$

$\Rightarrow \alpha = ?$

A) 154 B) 156 C) 158 D) 162 E) 164

23.



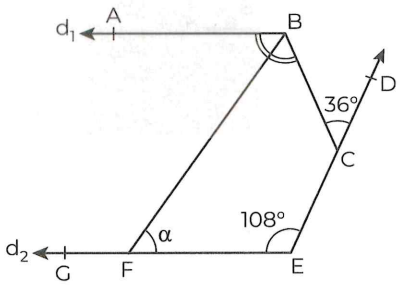
$d_1 // d_2$, $d_3 // d_4$,

$m(\widehat{DEA}) = 28°$, $m(\widehat{BAE}) = 102°$, $m(\widehat{DCF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 36 B) 42 C) 48 D) 50 E) 52

24.



$d_1 // d_2$,

$m(\widehat{ABF}) = m(\widehat{FBC})$, $m(\widehat{BCD}) = 36°$

$m(\widehat{DEG}) = 108°$, $m(\widehat{BFE}) = \alpha$

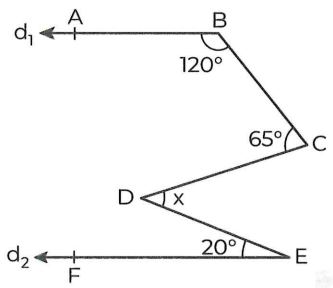
$\Rightarrow \alpha = ?$

A) 52 B) 54 C) 58 D) 60 E) 62

PUZZA ACADEMY

IRANINOVIN

25.



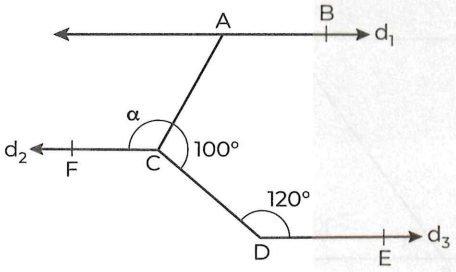
$d_1 // d_2$,

$m(\widehat{ABC}) = 120°$, $m(\widehat{BCD}) = 65°$, $m(\widehat{DEF}) = 20°$

$m(\widehat{CDE}) = x \Rightarrow x = ?$

A) 20 B) 25 C) 30 D) 35 E) 40

26.



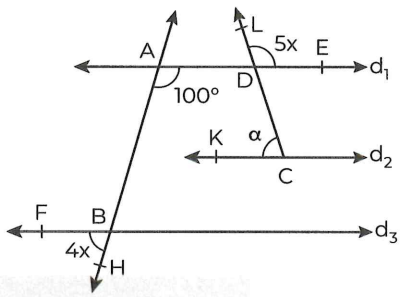
$d_1 // d_2 // d_3$,

$m(\widehat{ACD}) = 100°$, $m(\widehat{EDC}) = 120°$, $m(\widehat{FCA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 140 B) 120 C) 110 D) 100 E) 80

27.



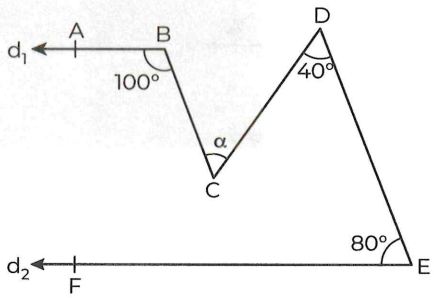
$d_1 // d_2 // d_3$,

$m(\widehat{EAB}) = 100°$, $m(\widehat{EDL}) = 5x$, $m(\widehat{FBH}) = 4x$

$m(\widehat{DCK}) = \alpha \Rightarrow \alpha = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

28.



$d_1 // d_2$,

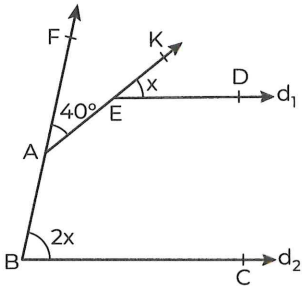
$m(\widehat{ABC}) = 100°$, $m(\widehat{CDE}) = 40°$, $m(\widehat{DEF}) = 80°$

$m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$

A) 60 B) 50 C) 40 D) 30 E) 20

PUZA ACADEMY

29.



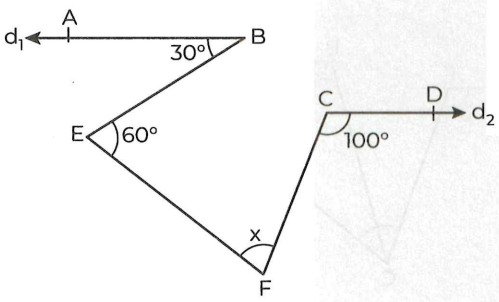
$d_1 // d_2$,

$m(\widehat{FAK}) = 40°$, $m(\widehat{FBC}) = 2x$, $m(\widehat{KED}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

30.



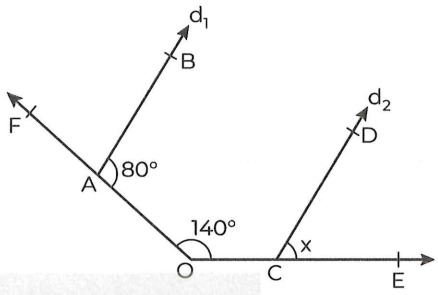
$d_1 // d_2$,

$m(\widehat{ABE}) = 30°$, $m(\widehat{BEF}) = 60°$, $m(\widehat{DCF}) = 100°$

$m(\widehat{EFC}) = x \Rightarrow x = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

31.



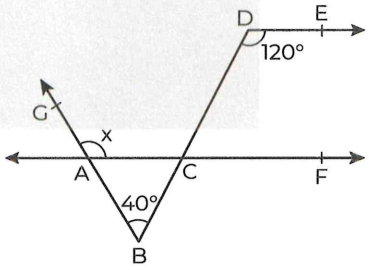
$d_1 // d_2$,

$m(\widehat{BAO}) = 80°$, $m(\widehat{AOC}) = 140°$, $m(\widehat{DCE}) = x$

$\Rightarrow x = ?$

A) 40 B) 55 C) 60 D) 65 E) 70

32.



[DE // [AF,

$m(\widehat{EDB}) = 120°$, $m(\widehat{DBG}) = 40°$, $m(\widehat{GAF}) = x$

$\Rightarrow x = ?$

A) 80 B) 85 C) 90 D) 95 E) 100

PUZA ACADEMY

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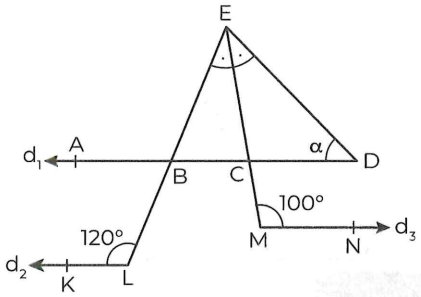
IRANINOVIN

33.



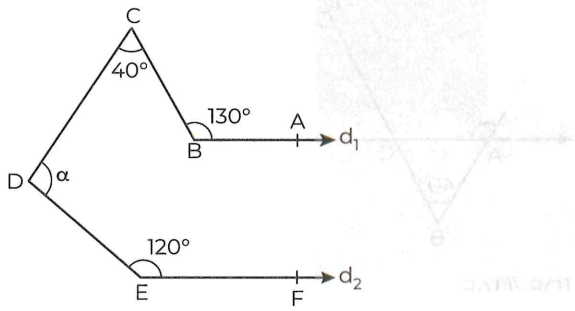
$d_1 // d_2 // d_3$,

$m(\widehat{KLE}) = 120°$, $m(\widehat{EMN}) = 100°$

$m(\widehat{MEL}) = m(\widehat{DEM})$, $m(\widehat{EDA}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

34.



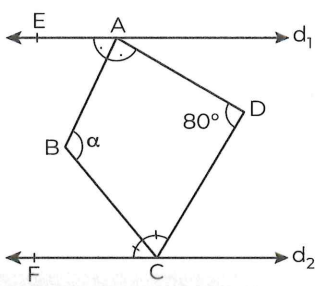
$d_1 // d_2$,

$m(\widehat{ABC}) = 130°$, $m(\widehat{BCD}) = 40°$, $m(\widehat{FED}) = 120°$

$m(\widehat{CDE}) = \alpha \Rightarrow \alpha = ?$

A) 110 B) 120 C) 130 D) 140 E) 150

35.



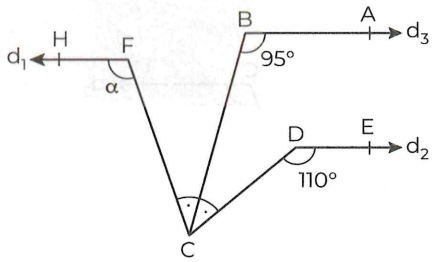
$d_1 // d_2$,

$m(\widehat{EAB}) = m(\widehat{BAD})$, $m(\widehat{FCB}) = m(\widehat{BCD})$

$m(\widehat{ADC}) = 80°$, $m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 140 B) 135 C) 130 D) 125 E) 120

36.



$d_1 // d_2 // d_3$,

$m(\widehat{ABC}) = 95°$, $m(\widehat{EDC}) = 110°$

$m(\widehat{BCD}) = m(\widehat{BCF})$, $m(\widehat{HFC}) = \alpha \Rightarrow \alpha = ?$

A) 90 B) 100 C) 110 D) 120 E) 130

PUZA ACADEMY

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NOTES:

LINES AND ANGLES

DOĞRUDA
AÇI

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
A	C	D	B	D	D	C	C	D	E	B	B

13	14	15	16	17	18	19	20	21	22	23	24
E	D	C	C	C	D	B	A	D	D	C	D

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
B	B	D	D	C	B	B	D	B	D	B	C

13	14	15	16	17	18	19	20	21	22	23	24
C	E	C	C	B	C	B	C	E	D	D	B

25	26	27	28	29	30	31	32	33	34	35	36
B	A	E	C	C	E	A	E	C	E	A	D

NOTES:

NOTES:

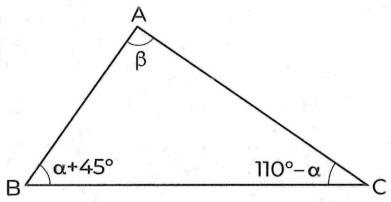
ANGLE OF TRIANGLE

ÜÇGENDE AÇI

CHAPTER | BÖLÜM 02

IRANINOVIN

1.



ABC **üçgen** (triangle)

$m(\widehat{ABC}) = \alpha + 45°$, $m(\widehat{ACB}) = 110° - \alpha$

$m(\widehat{BAC}) = \beta$

$\Rightarrow \beta = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

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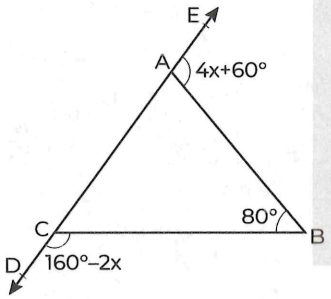
2.



ABC **üçgen** (triangle)

$m(\widehat{EAB}) = 4x + 60°$, $m(\widehat{DCB}) = 160° - 2x$

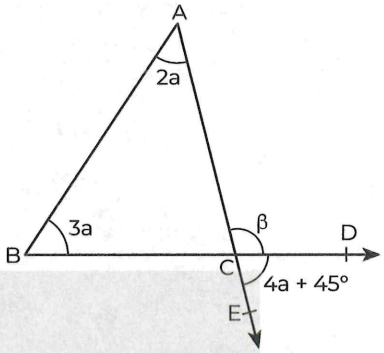
$m(\widehat{ABC}) = 80°$

$\Rightarrow m(\widehat{DAB}) = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

3.



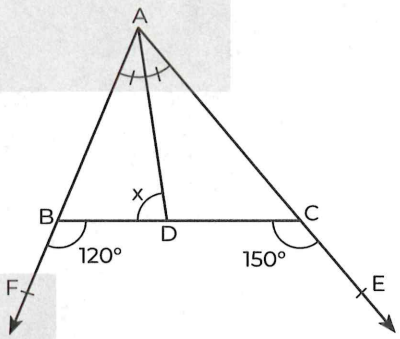
$m(\widehat{BAE}) = 2a$, $m(\widehat{ABD}) = 3a$

$m(\widehat{DCE}) = 4a + 45°$, $m(\widehat{ACD}) = \beta$

$\Rightarrow \beta = ?$

A) 85 B) 70 C) 75 D) 70 E) 60

4.

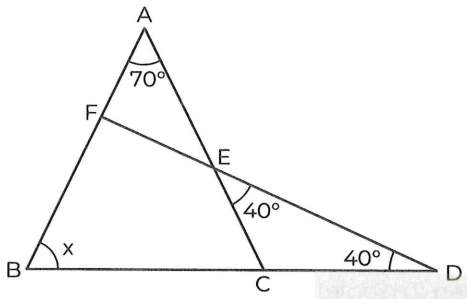


$m(\widehat{BCE}) = 150°$, $m(\widehat{FBC}) = 120°$

$m(\widehat{FAD}) = m(\widehat{DAE})$, $m(\widehat{ADB}) = x \Rightarrow x = ?$

A) 60 B) 75 C) 80 D) 90 E) 95

5.



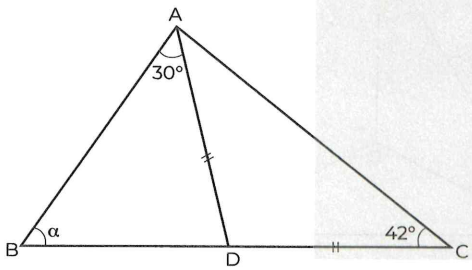
$m(\widehat{CED}) = m(\widehat{FDB}) = 40°$, $m(\widehat{BAC}) = 70°$

$m(\widehat{ABD}) = x$

$\Rightarrow x = ?$

A) 42 B) 40 C) 35 D) 30 E) 28

6.



ABC **üçgen** (triangle)

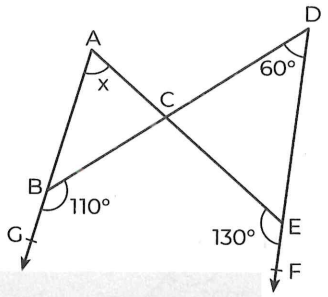
$|AD| = |DC|$, $m(\widehat{BAD}) = 30°$, $m(\widehat{ACB}) = 42°$

$m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 46 B) 52 C) 66 D) 72 E) 84

7.



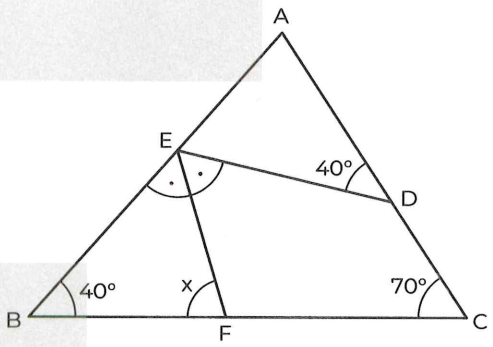
$m(\widehat{GBD}) = 110°$, $m(\widehat{FEA}) = 130°$

$m(\widehat{BDF}) = 60°$, $m(\widehat{BAC}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

8.



$m(\widehat{BEF}) = m(\widehat{FED})$, $m(\widehat{ABC}) = m(\widehat{ADE}) = 40°$

$m(\widehat{ACB}) = 70°$, $m(\widehat{EFB}) = x$

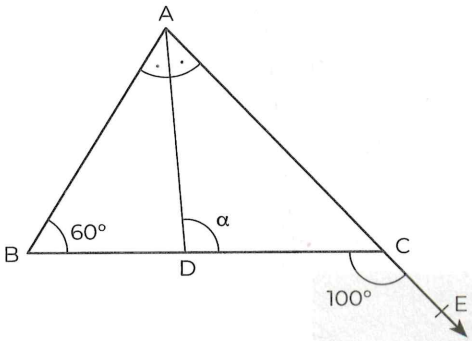
$\Rightarrow x = ?$

A) 85 B) 70 C) 65 D) 60 E) 55

PUZA ACADEMY

IRANINOVIN

9.



$m(\widehat{BAD}) = m(\widehat{DAE})$, $m(\widehat{ABC}) = 60°$

$m(\widehat{BCE}) = 100°$, $m(\widehat{ADC}) = \alpha \Rightarrow \alpha = ?$

A) 110 B) 100 C) 90 D) 80 E) 70

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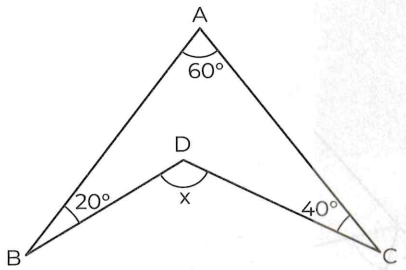
10.



$m(\widehat{BAC}) = 60°$, $m(\widehat{ABD}) = 20°$

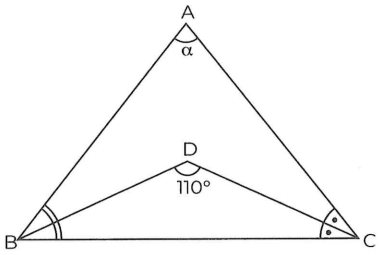
$m(\widehat{ACD}) = 40°$, $m(\widehat{BDC}) = x$

$\Rightarrow x = ?$

A) 120 B) 105 C) 100 D) 95 E) 90

PUZA ACADEMY

11.



ABC **üçgen** (triangle), $m(\widehat{ABD}) = m(\widehat{DBC})$

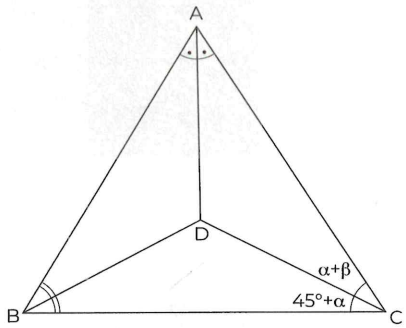
$m(\widehat{ACD}) = m(\widehat{DCB})$, $m(\widehat{BDC}) = 110°$

$m(\widehat{BAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

12.



ABC **üçgen** (triangle)

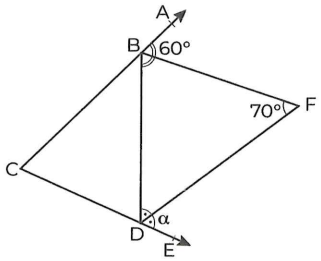
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ABD}) = m(\widehat{DBC})$

$m(\widehat{ACD}) = \alpha + \beta$, $m(\widehat{DCB}) = 45° + \alpha$

$\Rightarrow \beta = ?$

A) 20 B) 30 C) 35 D) 45 E) 50

13.



BCD **üçgen** (triangle), $m(\widehat{ABF}) = m(\widehat{FBD})$

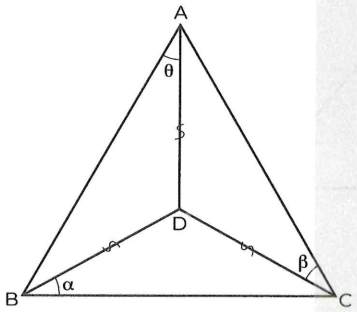
$m(\widehat{BDF}) = m(\widehat{FDE})$, $m(\widehat{ABF}) = 60°$,

$m(\widehat{BFD}) = 70°$, $m(\widehat{FDE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

14.



ABC **üçgen** (triangle)

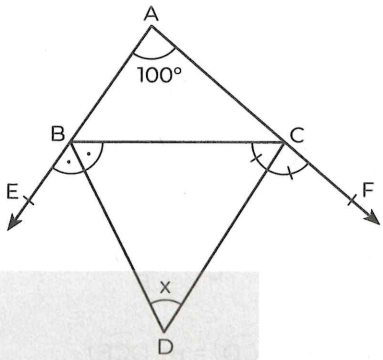
$|AD| = |DC| = |DB|$, $m(\widehat{DBC}) = \alpha$

$m(\widehat{DCA}) = \beta$, $m(\widehat{DAB}) = \theta$

$\Rightarrow \alpha + \beta + \theta = ?$

A) 60 B) 70 C) 80 D) 90 E) 100

15.

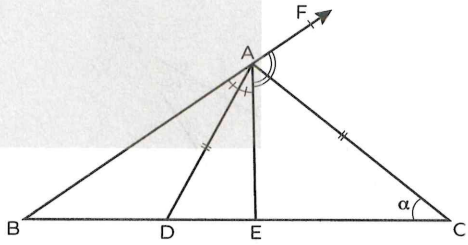


$m(\widehat{EBD}) = m(\widehat{DBC})$, $m(\widehat{BCD}) = m(\widehat{DCF})$

$m(\widehat{BAC}) = 100°$, $m(\widehat{BDC}) = x \Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

16.



ABC **üçgen** (triangle), B, A, F **doğrusal** (linear)

$|AD| = |AC|$, $m(\widehat{FAC}) = m(\widehat{CAE})$,

$m(\widehat{EAD}) = m(\widehat{DAB})$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

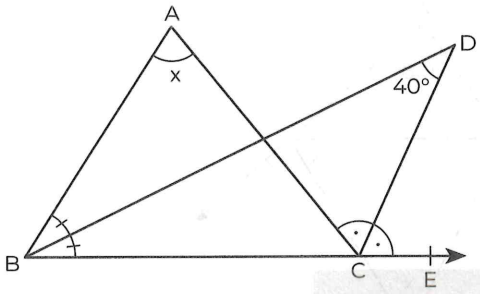
A) 20 B) 30 C) 45 D) 55 E) 60

PUZZA ACADEMY

IRANINOVIN

@galata1010

17.

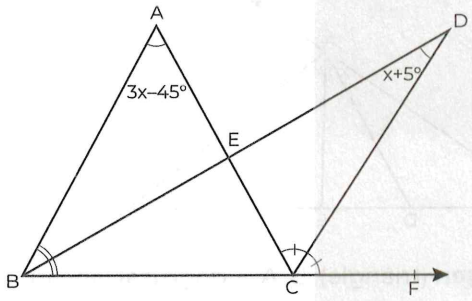


$m(\widehat{ABD}) = m(\widehat{DBE})$, $m(\widehat{ACD}) = m(\widehat{DCE})$

$m(\widehat{BDC}) = 40°$, $m(\widehat{BAC}) = x \Rightarrow x = ?$

A) 80 B) 70 C) 60 D) 40 E) 20

18.



ABC **üçgen** (triangle), B, C, F **doğrusal** (linear)

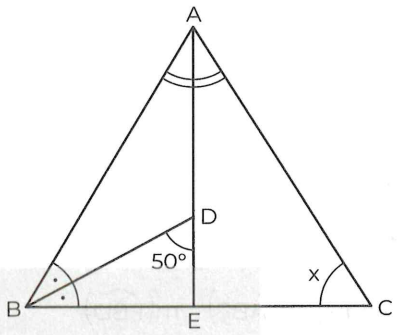
$m(\widehat{ABD}) = m(\widehat{DBF})$, $m(\widehat{ACD}) = m(\widehat{DCF})$

$m(\widehat{BAC}) = 3x - 45°$, $m(\widehat{BDC}) = x + 5°$

$\Rightarrow x = ?$

A) 30 B) 35 C) 40 D) 50 E) 55

19.

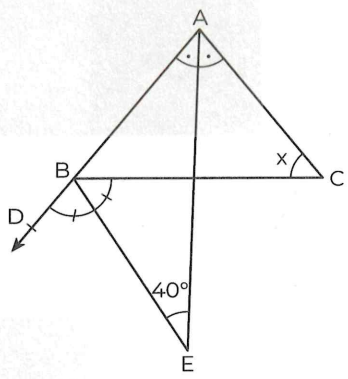


$m(\widehat{BAE}) = m(\widehat{EAC})$, $m(\widehat{ABD}) = m(\widehat{DBC})$

$m(\widehat{BDE}) = 50°$, $m(\widehat{ACB}) = x \Rightarrow x = ?$

A) 90 B) 80 C) 70 D) 60 E) 50

20.



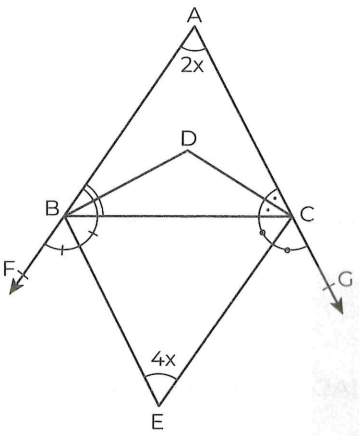
$m(\widehat{DAE}) = m(\widehat{EAC})$, $m(\widehat{DBE}) = m(\widehat{EBC})$

$m(\widehat{BEA}) = 40°$, $m(\widehat{BCA}) = x \Rightarrow x = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

PUZA ACADEMY

21.



ABC **üçgen** (triangle),

$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{CBE}) = m(\widehat{EBF})$

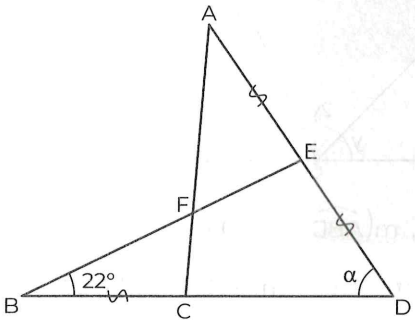
$m(\widehat{ACD}) = m(\widehat{DCB})$, $m(\widehat{BCE}) = m(\widehat{ECG})$

$m(\widehat{FAG}) = 2x$, $m(\widehat{BEC}) = 4x$

$\Rightarrow x = ?$

A) 12 B) 14 C) 16 D) 18 E) 22

22.



ACD, BED **üçgen** (triangle)

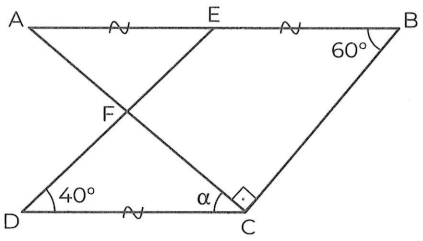
$[AC] \perp [BD]$, $|AE| = |ED| = |BC|$

$m(\widehat{EBD}) = 22°$, $m(\widehat{ADB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 22 B) 32 C) 36 D) 42 E) 44

23.



ACB **dik üçgen** (right triangle)

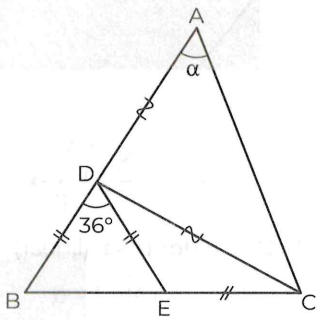
$|AE| = |EB| = |DC|$

$m(\widehat{EDC}) = 40°$, $m(\widehat{ABC}) = 60°$, $m(\widehat{ACD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 45 B) 65 C) 68 D) 70 E) 75

24.



ABC **üçgen** (triangle)

$|BD| = |DE| = |EC|$, $|AD| = |DC|$

$m(\widehat{BDE}) = 36°$, $m(\widehat{BAC}) = \alpha$

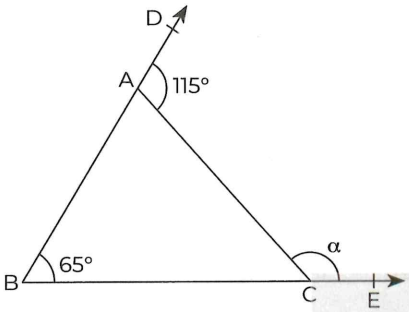
$\Rightarrow \alpha = ?$

A) 32 B) 36 C) 40 D) 42 E) 46

PUZA ACADEMY

IRANINOVIN

1.

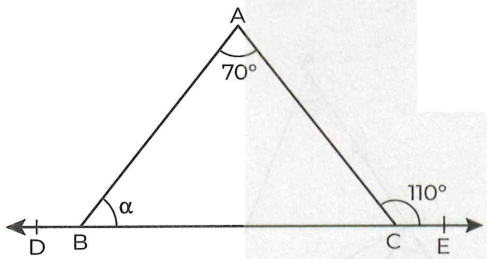


$m(\widehat{DAC}) = 115°$, $m(\widehat{DBE}) = 65°$, $m(\widehat{ACE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 130 B) 125 C) 120 D) 115 E) 110

2.



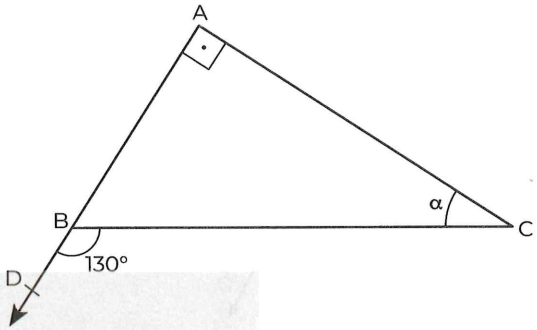
ABC **üçgen** (triangle) , D, B, C, E **doğrusal** (linear)

$m(\widehat{BAC}) = 70°$, $m(\widehat{ACE}) = 110°$, $m(\widehat{ABE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

3.

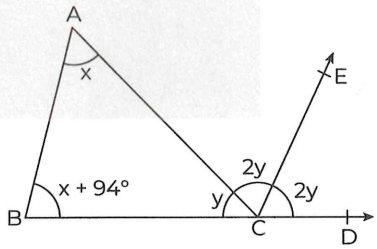


$m(\widehat{DBC}) = 130°$, $[AD \perp [AC]$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 40 C) 35 D) 30 E) 25

4.



$m(\widehat{BAC}) = x$, $m(\widehat{ABD}) = x + 94°$

$2 \cdot m(\widehat{ACB}) = m(\widehat{ACE})$, $m(\widehat{ACE}) = m(\widehat{ECD})$

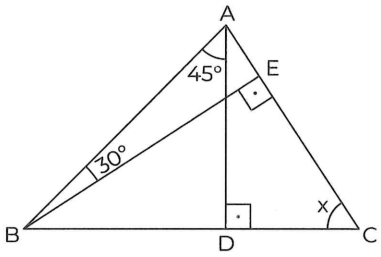
$\Rightarrow y - x = ?$

A) 11 B) 12 C) 13 D) 14 E) 15

PUZA ACADEMY

IRANINOVIN

5.



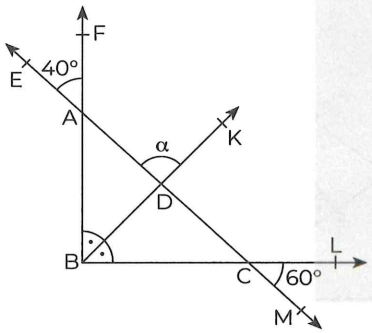
$m(\widehat{BAD}) = 45°$, $m(\widehat{ABE}) = 30°$, $[AD] \perp [BC]$

$[BE] \perp [AC]$, $m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 75 B) 60 C) 55 D) 50 E) 40

6.



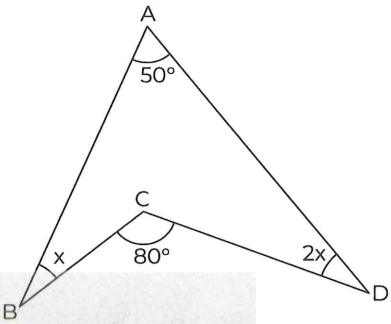
$m(\widehat{EAF}) = 40°$, $m(\widehat{MCL}) = 60°$

$m(\widehat{FBK}) = m(\widehat{KBL})$, $m(\widehat{EDK}) = \alpha$

$\Rightarrow \alpha = ?$

A) 90 B) 80 C) 70 D) 60 E) 40

7.



$m(\widehat{BAD}) = 50°$, $m(\widehat{BCD}) = 80°$, $m(\widehat{ABC}) = x$

$m(\widehat{ADC}) = 2x$

$\Rightarrow x = ?$

A) 5 B) 10 C) 15 D) 20 E) 25

PUZA ACADEMY
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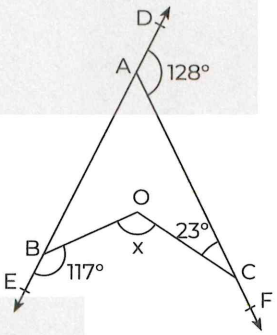
8.



$m(\widehat{DAF}) = 128°$, $m(\widehat{EBO}) = 117°$

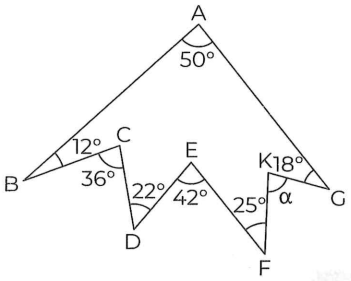
$m(\widehat{ACO}) = 23°$, $m(\widehat{BOC}) = x$

$\Rightarrow x = ?$

A) 126 B) 130 C) 134 D) 138 E) 142

IRANINOVIN

9.



$m(\widehat{ABC}) = 12°$, $m(\widehat{AGK}) = 18°$, $m(\widehat{CDE}) = 22°$

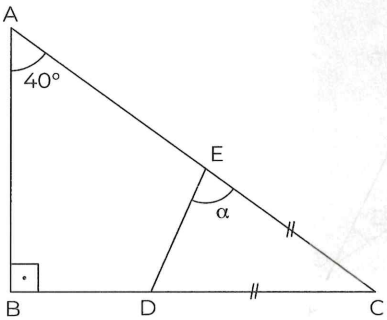
$m(\widehat{KFE}) = 25°$, $m(\widehat{BCD}) = 36°$, $m(\widehat{DEF}) = 42°$

$m(\widehat{BAG}) = 50°$, $m(\widehat{GKF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 48 B) 49 C) 50 D) 51 E) 52

10.



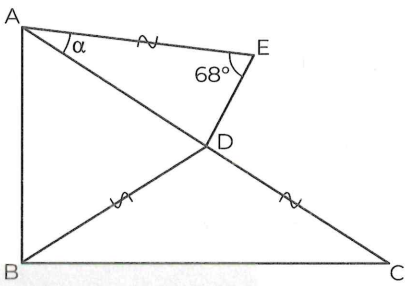
$|EC| = |DC|$, $m(\widehat{BAC}) = 40°$, $[AB] \perp [BC]$

$m(\widehat{DEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 75 B) 72 C) 70 D) 68 E) 65

11.



ABC **dik üçgen** (right triangle)

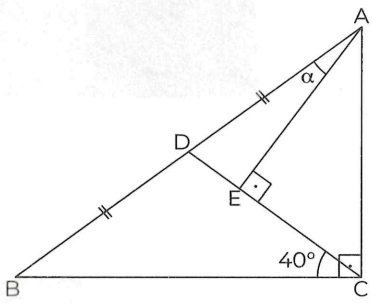
$[AB] \perp [BC]$, $|BD| = |DC| = |AE|$

$m(\widehat{AED}) = 68°$, $m(\widehat{AEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 28 B) 32 C) 36 D) 44 E) 52

12.



$[AE] \perp [CD]$, $[AC] \perp [BC]$, $|AD| = |DB|$

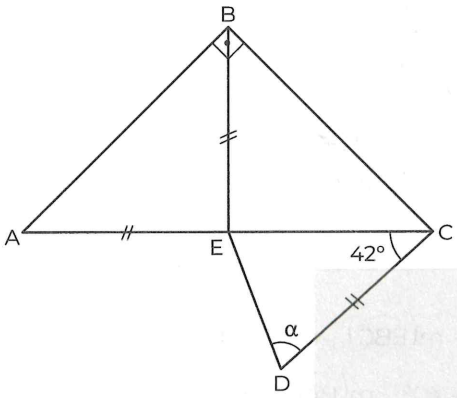
$m(\widehat{DCB}) = 40°$, $m(\widehat{BAE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 5 B) 10 C) 15 D) 20 E) 25

PUZA ACADEMY

13.



ABC **dik üçgen** (right triangle)

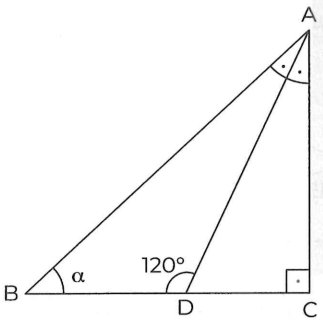
$|AE| = |BE| = |DC|$

$m(\widehat{ACD}) = 42°$, $m(\widehat{EDC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 63 B) 69 C) 92 D) 96 E) 98

14.



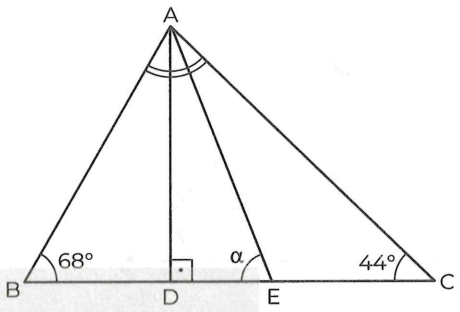
$m(\widehat{ADB}) = 120°$, $m(\widehat{BAD}) = m(\widehat{DAC})$

$[AC] \perp [BC]$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 15 B) 20 C) 25 D) 30 E) 35

15.



ABC **üçgen** (triangle)

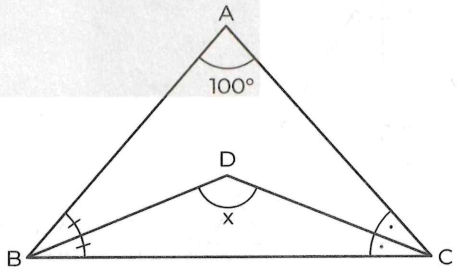
$[AD] \perp [BC]$, $m(\widehat{BAE}) = m(\widehat{EAC})$

$m(\widehat{ACB}) = 44°$, $m(\widehat{ABC}) = 68°$, $m(\widehat{AEB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 12 B) 24 C) 36 D) 48 E) 78

16.



$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{BCD}) = m(\widehat{DCA})$

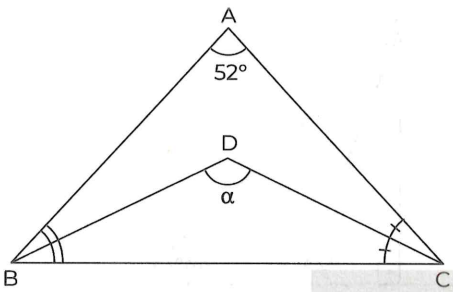
$m(\widehat{BAC}) = 100°$, $m(\widehat{BDC}) = x$ $\Rightarrow x = ?$

A) 140 B) 135 C) 130 D) 120 E) 110

PUZA ACADEMY

IRANINOVIN

17.



ABC **üçgen** (triangle)

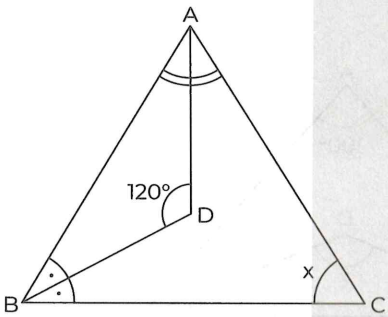
$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{ACD}) = m(\widehat{DCB})$

$m(\widehat{BAC}) = 52°$, $m(\widehat{BDC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 64 B) 72 C) 84 D) 116 E) 124

18.



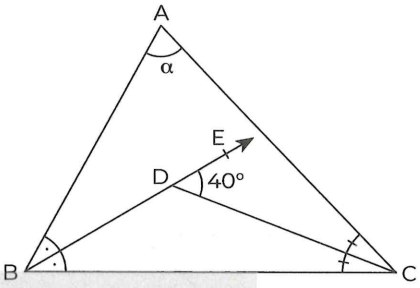
$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{BAD}) = m(\widehat{DAC})$

$m(\widehat{ADB}) = 120°$, $m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 80 B) 75 C) 70 D) 65 E) 60

19.



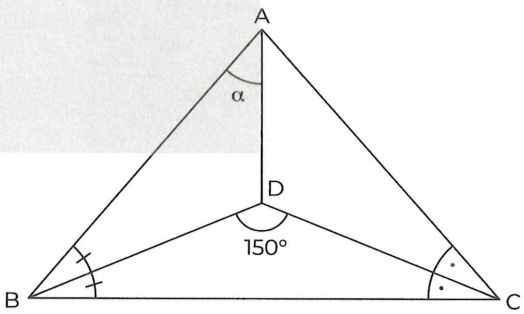
$m(\widehat{ABE}) = m(\widehat{EBC})$, $m(\widehat{BCD}) = m(\widehat{DCA})$

$m(\widehat{EDC}) = 40°$, $m(\widehat{BAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 120 B) 110 C) 100 D) 90 E) 80

20.



$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{BCD}) = m(\widehat{DCA})$

$m(\widehat{BDC}) = 150°$, $m(\widehat{BAD}) = \alpha$

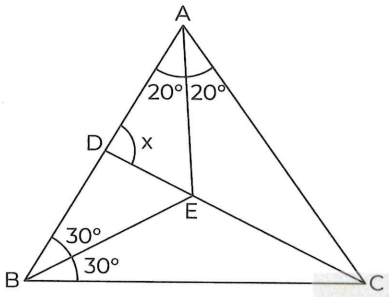
$\Rightarrow \alpha = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

PUZA ACADEMY

@galata1010

21.



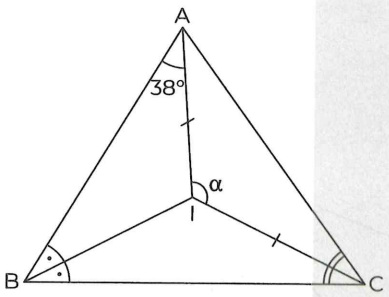
$m(\widehat{ABE}) = m(\widehat{EBC}) = 30°$

$m(\widehat{BAE}) = m(\widehat{EAC}) = 20°$, $m(\widehat{ADC}) = x$

$\Rightarrow x = ?$

A) 100 B) 90 C) 80 D) 70 E) 60

22.



ABC **üçgen** (triangle)

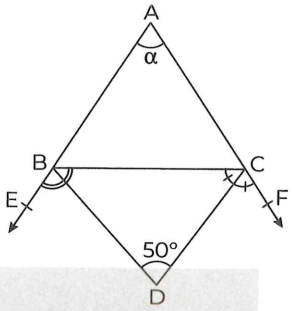
$m(\widehat{ABI}) = m(\widehat{IBC})$, $m(\widehat{BCI}) = m(\widehat{ICA})$

$m(\widehat{BAI}) = 38°$, $m(\widehat{AIC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 98 B) 102 C) 104 D) 112 E) 116

23.



ABC **üçgen** (triangle)

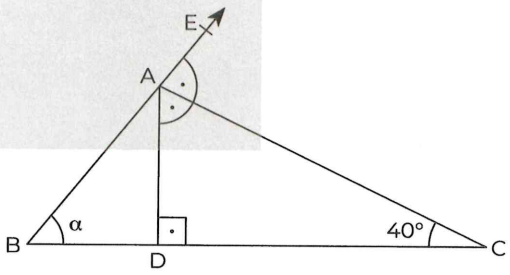
$m(\widehat{EBD}) = m(\widehat{DBC})$, $m(\widehat{BCD}) = m(\widehat{DCF})$

$m(\widehat{BDC}) = 50°$, $m(\widehat{EAF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 40 C) 70 D) 80 E) 100

24.



$m(\widehat{EAC}) = m(\widehat{CAD})$, $m(\widehat{ACB}) = 40°$

$[AD] \perp [BC]$, $m(\widehat{EBC}) = \alpha$

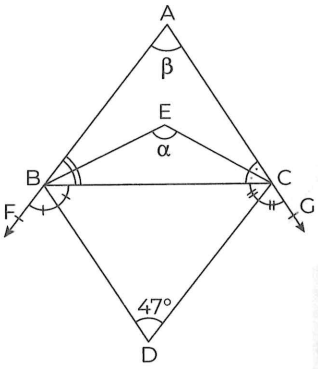
$\Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

PUZA ACADEMY

IRANINOVIN

25.



ABC **üçgen** (triangle)

$m(\widehat{ABE}) = m(\widehat{EBC})$, $m(\widehat{CBD}) = m(\widehat{DBF})$

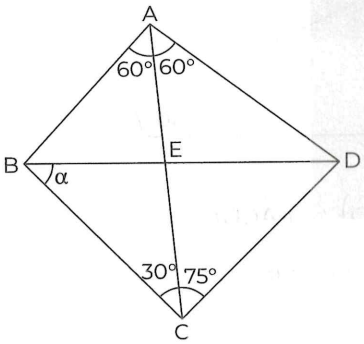
$m(\widehat{ACE}) = m(\widehat{ECB})$, $m(\widehat{BCD}) = m(\widehat{DCG})$

$m(\widehat{BDC}) = 47°$, $m(\widehat{BEC}) = \alpha$, $m(\widehat{FAG}) = \beta$

$\Rightarrow \alpha - \beta = ?$

A) 23 B) 27 C) 43 D) 47 E) 53

26.



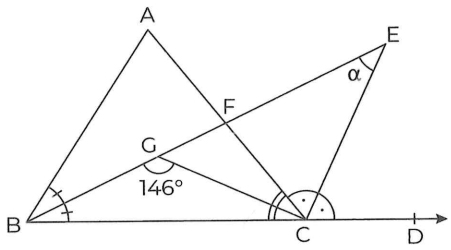
ABCD **dörtgen** (quadrilateral)

$m(\widehat{BCA}) = 30°$, $m(\widehat{BAC}) = m(\widehat{CAD}) = 60°$

$m(\widehat{ACD}) = 75°$, $m(\widehat{DBC}) = \alpha \Rightarrow \alpha = ?$

A) 22,5 B) 30 C) 45 D) 52 E) 60

27.



ABC **üçgen** (triangle)

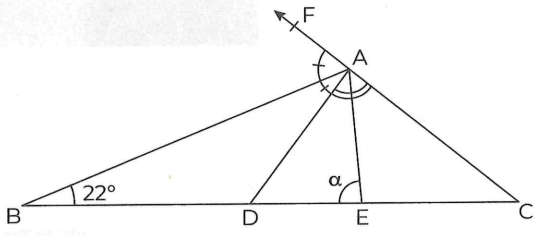
$m(\widehat{ABE}) = m(\widehat{EBD})$, $m(\widehat{BCG}) = m(\widehat{GCA})$

$m(\widehat{ACE}) = m(\widehat{ECD})$, $m(\widehat{BGC}) = 146°$

$m(\widehat{BEC}) = \alpha \Rightarrow \alpha = ?$

A) 34 B) 56 C) 68 D) 76 E) 84

28.



ABC **üçgen** (triangle)

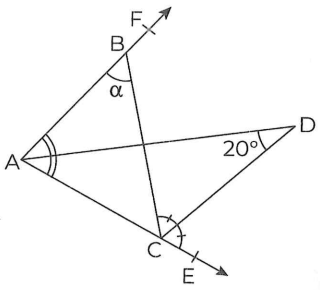
$m(\widehat{FAB}) = m(\widehat{BAD})$, $m(\widehat{DAE}) = m(\widehat{EAC})$

$m(\widehat{ABC}) = 22°$, $m(\widehat{BEA}) = \alpha \Rightarrow \alpha = ?$

A) 42 B) 44 C) 56 D) 68 E) 72

PUZA ACADEMY

29.



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BAC **üçgen** (triangle)

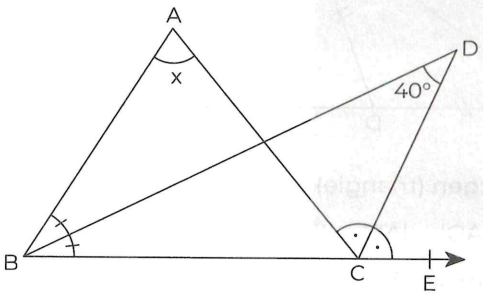
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{BCD}) = m(\widehat{DCE})$

$m(\widehat{ADC}) = 20°$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 50

30.



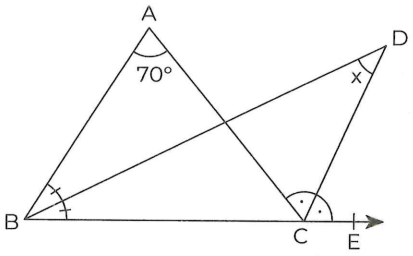
$m(\widehat{ABD}) = m(\widehat{DBE})$, $m(\widehat{ACD}) = m(\widehat{DCE})$

$m(\widehat{BDC}) = 40°$, $m(\widehat{BAC}) = x$

$\Rightarrow x = ?$

A) 80 B) 70 C) 60 D) 40 E) 20

31.



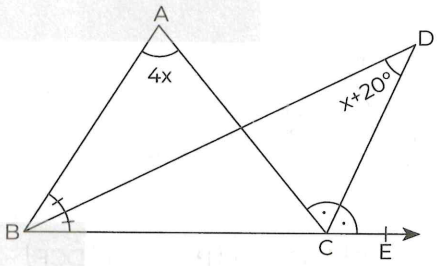
$m(\widehat{ABD}) = m(\widehat{DBE})$, $m(\widehat{ACD}) = m(\widehat{DCE})$

$m(\widehat{BAC}) = 70°$, $m(\widehat{BDC}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 35 D) 45 E) 50

32.



$m(\widehat{ABD}) = m(\widehat{DBE})$, $m(\widehat{ACD}) = m(\widehat{DCE})$

$m(\widehat{BAC}) = 4x$, $m(\widehat{BDC}) = x + 20°$

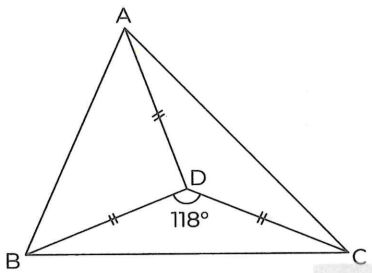
$\Rightarrow x = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

PUZA ACADEMY

IRANINOVIN

33.



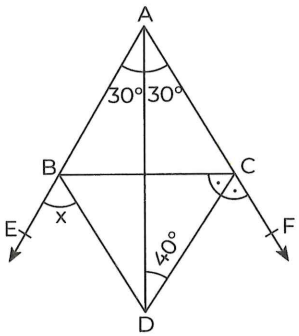
ABC **üçgen** (triangle)

$|AD| = |BD| = |CD|$, $m(\widehat{BDC}) = 118°$

$\Rightarrow m(\widehat{BAC}) = ?$

A) 35 B) 50 C) 59 D) 72 E) 98

34.



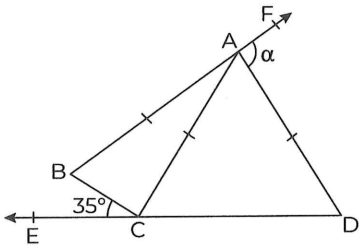
$m(\widehat{EAD}) = m(\widehat{DAF}) = 30°$, $m(\widehat{BCD}) = m(\widehat{DCF})$

$m(\widehat{ADC}) = 40°$, $m(\widehat{EBD}) = x$

$\Rightarrow x = ?$

A) 60 B) 55 C) 50 D) 45 E) 40

35.



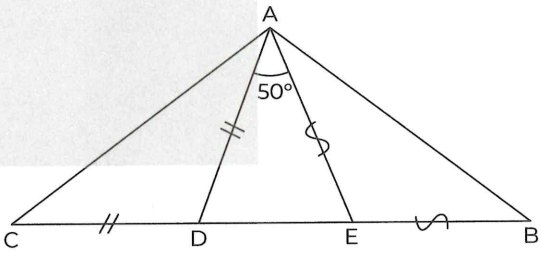
ABC, ACD **üçgen** (triangle)

$|AB| = |AC| = |AD|$, $m(\widehat{BCE}) = 35°$, $m(\widehat{FAD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 70 B) 90 C) 100 D) 110 E) 120

36.



ABC **üçgen** (triangle)

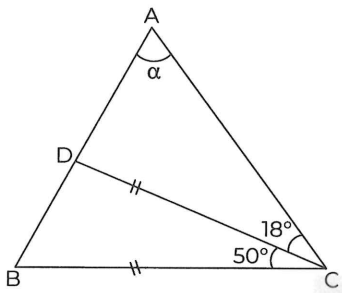
$|CD| = |AD|$, $|AE| = |EB|$, $m(\widehat{DAE}) = 50°$

$\Rightarrow m(\widehat{CAB}) = ?$

A) 65 B) 85 C) 100 D) 115 E) 125

PUZA ACADEMY

1.



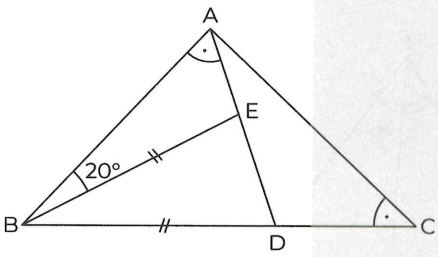
ABC **üçgen** (triangle), $|BC| = |CD|$

$m(\widehat{ACD}) = 18°$, $m(\widehat{DCB}) = 50°$, $m(\widehat{BAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 37 B) 40 C) 41 D) 47 E) 52

2.



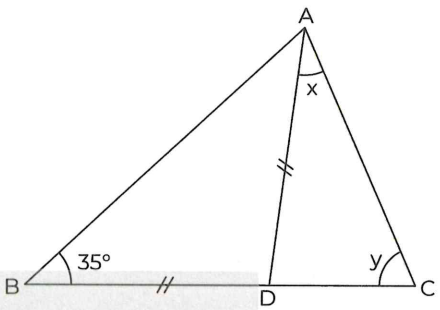
$m(\widehat{BAD}) = m(\widehat{ACB})$, $|BE| = |BD|$

$m(\widehat{ABE}) = 20°$

$\Rightarrow m(\widehat{DAC}) = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

3.



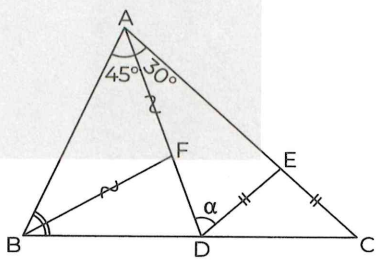
$m(\widehat{DAC}) = x$, $m(\widehat{ACB}) = y$, $|AD| = |BD|$

$m(\widehat{ABC}) = 35°$, $x - y = 10°$

$\Rightarrow y = ?$

A) 50 B) 60 C) 70 D) 75 E) 80

4.



ABC **üçgen** (triangle)

$|AF| = |BF|$, $|DE| = |EC|$

$m(\widehat{DAC}) = 30°$, $m(\widehat{BAD}) = 45°$, $m(\widehat{ADE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 95 B) 100 C) 115 D) 120 E) 125

PUZA ACADEMY
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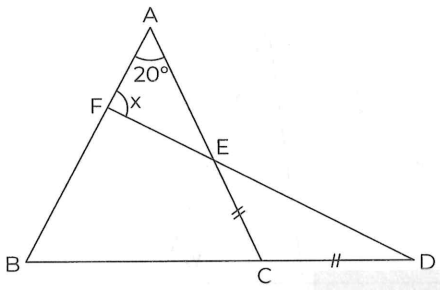
IRANINOVIN

5.



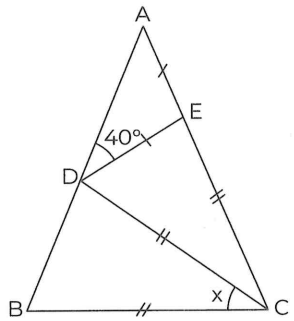
$|AB| = |AC|$, $|EC| = |CD|$, $m(\widehat{BAC}) = 20°$

$m(\widehat{AFD}) = x$

$\Rightarrow x = ?$

A) 120 B) 110 C) 100 D) 90 E) 80

6.



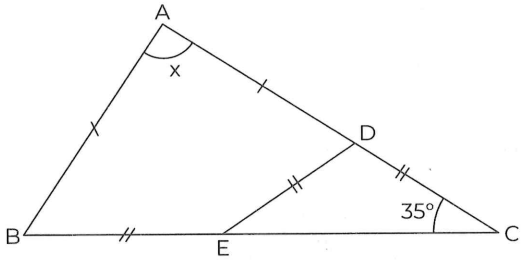
$|AE| = |ED|$, $|CE| = |CD| = |CB|$

$m(\widehat{ADE}) = 40°$, $m(\widehat{BCD}) = x$

$\Rightarrow x = ?$

A) 60 B) 55 C) 50 D) 45 E) 40

7.



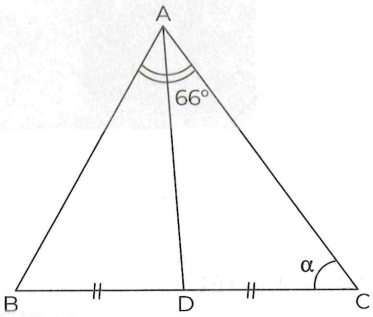
$|BE| = |ED| = |DC|$, $|AB| = |AD|$

$m(\widehat{ACB}) = 35°$, $m(\widehat{BAC}) = x$

$\Rightarrow x = ?$

A) 60 B) 70 C) 75 D) 80 E) 85

8.



ABC **üçgen** (triangle), $m(\widehat{BAD}) = m(\widehat{DAC})$

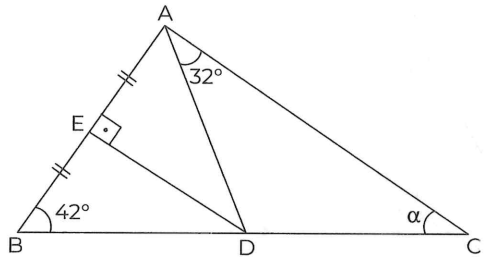
$|BD| = |DC|$, $m(\widehat{DAC}) = 66°$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 12 B) 20 C) 22 D) 24 E) 36

PUZA ACADEMY

9.



ABC **üçgen** (triangle)

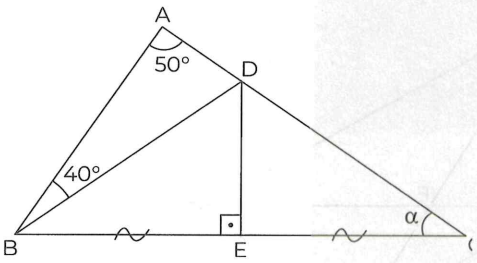
$|AE| = |EB|$, $[DE] \perp [AB]$, $m(\widehat{DAC}) = 32°$,

$m(\widehat{ABC}) = 42°$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 46 B) 48 C) 54 D) 64 E) 66

10.



ABC **üçgen** (triangle)

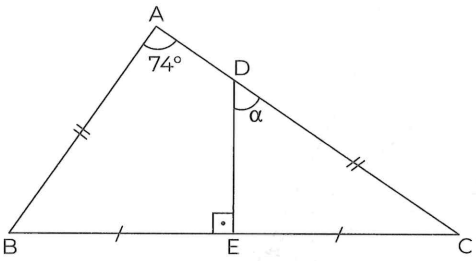
$|BE| = |EC|$, $[DE] \perp [BC]$, $m(\widehat{ABD}) = 40°$

$m(\widehat{BAC}) = 50°$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 25 B) 30 C) 40 D) 45 E) 50

11.



ABC **üçgen** (triangle)

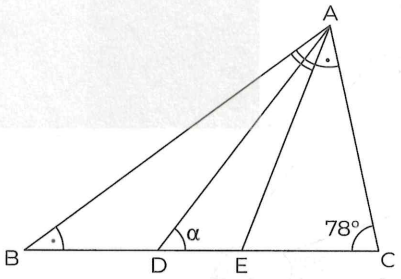
$[DE] \perp [BC]$, $|AB| = |DC|$, $m(\widehat{BAC}) = 74°$,

$m(\widehat{EDC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 52 C) 53 D) 63 E) 74

12.



ABC **üçgen** (triangle)

$m(\widehat{ABC}) = m(\widehat{CAE})$, $m(\widehat{BAD}) = m(\widehat{DAE})$

$m(\widehat{ACB}) = 78°$, $m(\widehat{ADC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 48 B) 49 C) 51 D) 53 E) 57

PUZA ACADEMY

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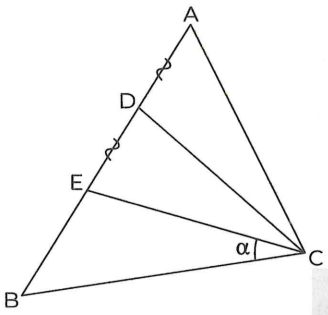
13.



ABC **üçgen** (triangle)

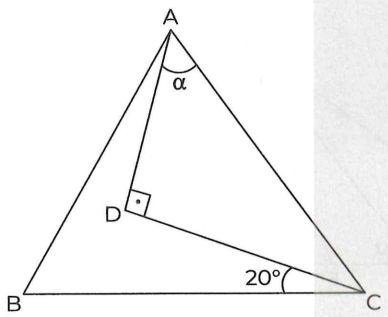
AEC **eşkenar üçgen** (equilateral triangle)

$|AD| = |DE|$, $|DC| = |DB|$, $m(\widehat{ECB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 5 B) 10 C) 15 D) 20 E) 25

14.



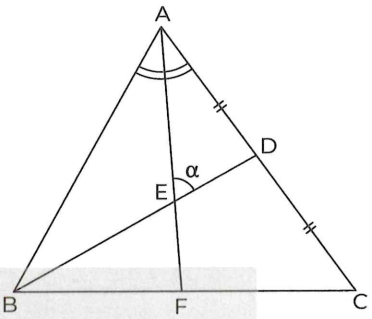
ABC **eşkenar üçgen** (equilateral triangle)

$[AD] \perp [DC]$, $m(\widehat{DCB}) = 20°$, $m(\widehat{DAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 55

15.



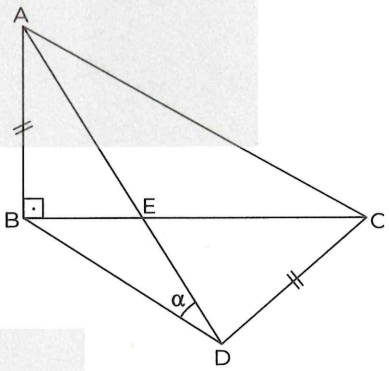
ABC **eşkenar üçgen** (equilateral triangle)

$m(\widehat{BAF}) = m(\widehat{FAC})$, $|AD| = |DC|$, $m(\widehat{AED}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 40 C) 45 D) 60 E) 90

16.



ABC **dik üçgen** (right triangle)

BDC **eşkenar üçgen** (equilateral triangle)

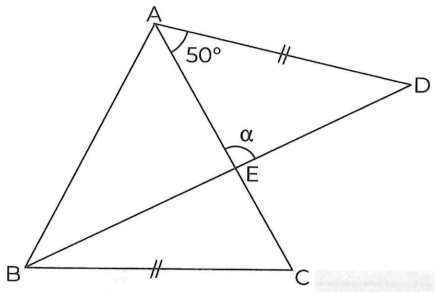
$|AB| = |DC|$, $m(\widehat{BDA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 15 C) 30 D) 45 E) 50

PUZA ACADEMY

17.



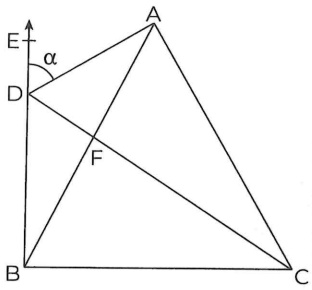
ABC **eşkenar üçgen** (equilateral triangle)

$|AD| = |BC|$, $m(\widehat{CAD}) = 50°$, $m(\widehat{AED}) = \alpha$

$\Rightarrow \alpha = ?$

A) 75 B) 80 C) 85 D) 90 E) 95

18.



ABC **eşkenar üçgen** (equilateral triangle)

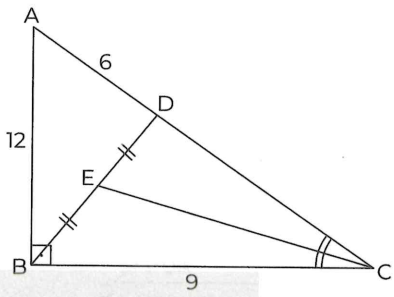
B, D, E **doğrusal** (linear)

$|AC| = |CD|$, $m(\widehat{EDA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 35 C) 40 D) 42 E) 45

19.



ABC **dik üçgen** (right triangle)

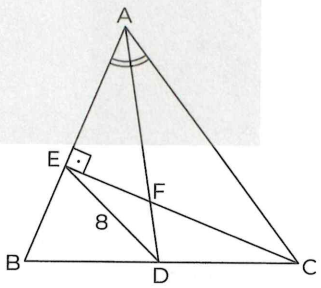
$m(\widehat{BEC}) = m(\widehat{ECA})$, $|BE| = |ED|$, $|AD| = 6$ br

$|AB| = 12$ br , $|BC| = 9$ br

$\Rightarrow$ **Çevre** (Circumference) $(\widehat{ABC}) = ?$

A) 24 B) 28 C) 32 D) 36 E) 38

20.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $[CE] \perp [AB]$

$|AB| = |AC|$, $|ED| = 8$ br

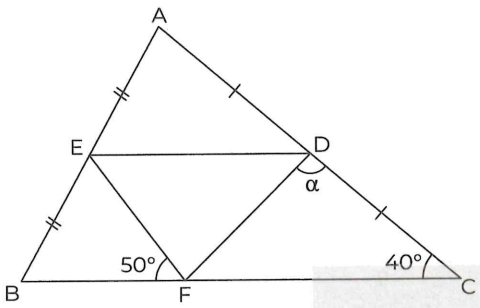
$\Rightarrow |BC| = ?$

A) 10 B) 12 C) 14 D) 15 E) 16

PUZA ACADEMY

IRANINOVIN

21.



ABC **üçgen** (triangle)

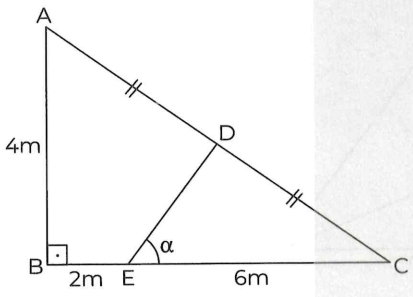
$2|DF| = |BC|$, $|AE| = |EB|$, $|AD| = |DC|$

$m(\widehat{ACB}) = 40°$, $m(\widehat{EFB}) = 50°$

$m(\widehat{FDC}) = \alpha \Rightarrow \alpha = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

22.



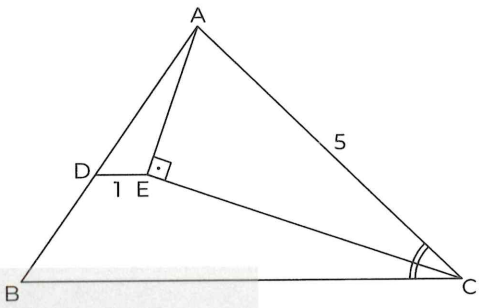
ABC **dik üçgen** (right triangle)

$|BE| = 2m$, $|AB| = 4m$, $|EC| = 6m$, $|AD| = |DC|$

$m(\widehat{DEC}) = \alpha \Rightarrow \alpha = ?$

A) 15 B) 30 C) 45 D) 60 E) 75

23.



ABC **üçgen** (triangle)

$m(\widehat{ACE}) = m(\widehat{ECB})$, $[AE] \perp [EC]$, $[DE] \,//\, [BC]$

$|DE| = 1$ br , $|AC| = 5$ br

$\Rightarrow |BC| = ?$

A) 5 B) 6 C) 7 D) 8 E) 9

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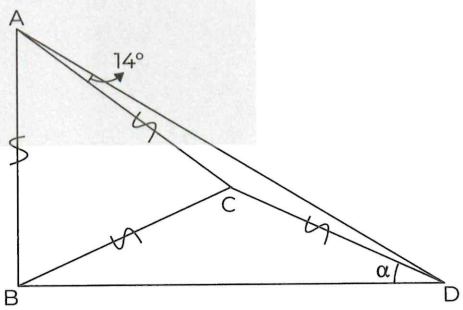
PUZA ACADEMY

24.



ABD **üçgen** (triangle)

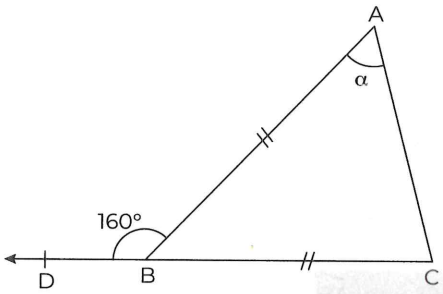
$|AB| = |BC| = |AC| = |CD|$, $m(\widehat{CAD}) = 14°$

$m(\widehat{CDB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 12 C) 14 D) 16 E) 18

1.

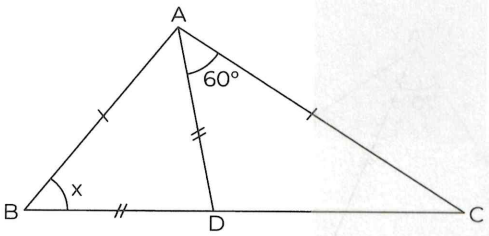


$|AB| = |BC|$, $m(\widehat{DBA}) = 160°$, $m(\widehat{BAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 50 C) 60 D) 70 E) 80

2.



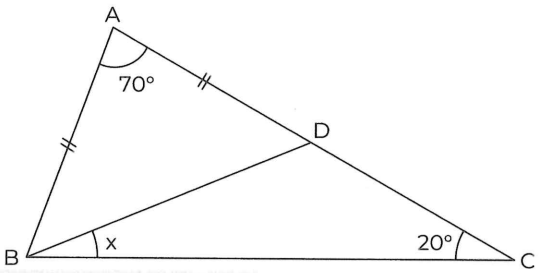
$m(\widehat{DAC}) = 60°$, $|AB| = |AC|$, $|AD| = |BD|$

$m(\widehat{ABC}) = x$

$\Rightarrow x = ?$

A) 35 B) 40 C) 45 D) 50 E) 55

3.



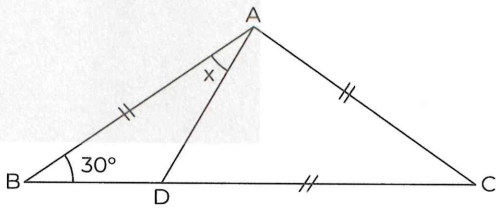
$|AB| = |AD|$, $m(\widehat{BAC}) = 70°$, $m(\widehat{ACB}) = 20°$

$m(\widehat{DBC}) = x$

$\Rightarrow x = ?$

A) 80 B) 70 C) 65 D) 55 E) 35

4.



$|AB| = |AC| = |CD|$, $m(\widehat{ABC}) = 30°$

$m(\widehat{BAD}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 45 D) 50 E) 60

PUZA ACADEMY

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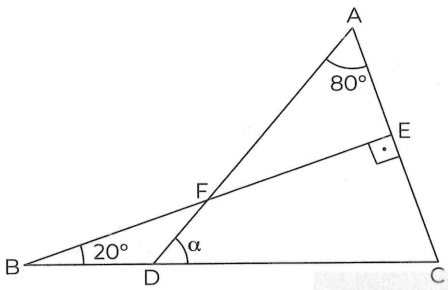
5.



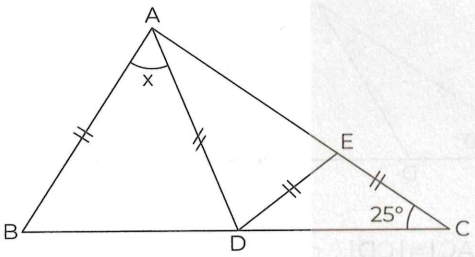
$[BE] \perp [AC]$, $m(\widehat{EBC}) = 20°$, $m(\widehat{DAC}) = 80°$

$m(\widehat{ADC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 15 B) 20 C) 30 D) 40 E) 50

6.



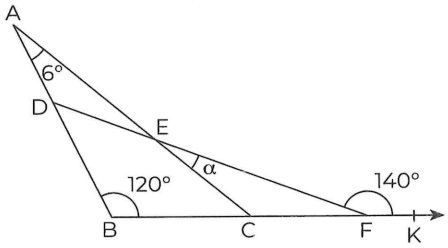
$|AB| = |AD| = |ED| = |EC|$, $m(\widehat{ACB}) = 25°$

$m(\widehat{BAD}) = x$

$\Rightarrow x = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

7.



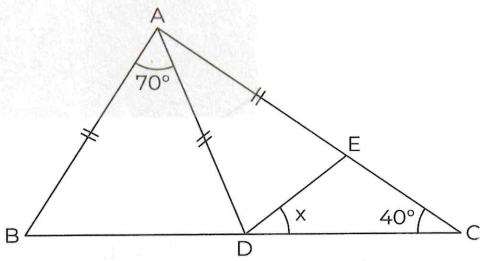
$m(\widehat{BAC}) = 6°$, $m(\widehat{ABK}) = 120°$

$m(\widehat{DFK}) = 140°$, $m(\widehat{FEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 12 B) 13 C) 14 D) 20 E) 24

8.



$|AB| = |AD| = |AE|$, $m(\widehat{BAD}) = 70°$

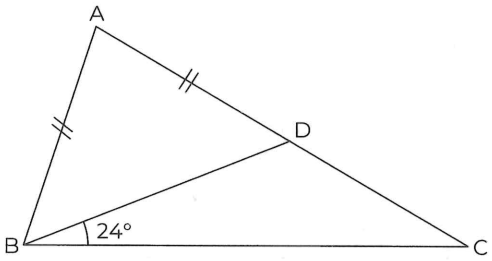
$m(\widehat{ACB}) = 40°$, $m(\widehat{EDC}) = x$

$\Rightarrow x = ?$

A) 40 B) 42,5 C) 45 D) 47,5 E) 48

PUZA ACADEMY

9.



$|AC| = |BC|$, $|AD| = |AB|$

$m(\widehat{DBC}) = 24°$

$\Rightarrow m(\widehat{BAC}) = ?$

A) 56 B) 58 C) 62 D) 76 E) 86

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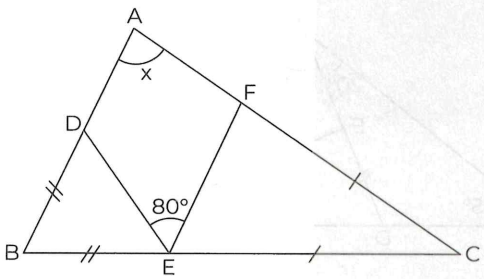
10.



$m(\widehat{DEF}) = 80°$, $|BD| = |BE|$, $|CF| = |CE|$

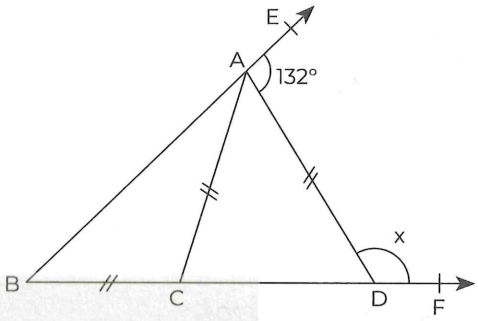
$m(\widehat{BAC}) = x$

$\Rightarrow x = ?$

A) 20 B) 45 C) 50 D) 55 E) 60

PUZA ACADEMY

11.



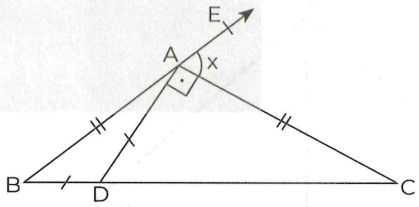
$|BC| = |CA| = |AD|$

$m(\widehat{EAD}) = 132°$, $m(\widehat{ADF}) = x$

$\Rightarrow x = ?$

A) 92 B) 96 C) 114 D) 120 E) 124

12.



$[AD] \perp [CA]$, $|AB| = |AC|$, $|DB| = |DA|$

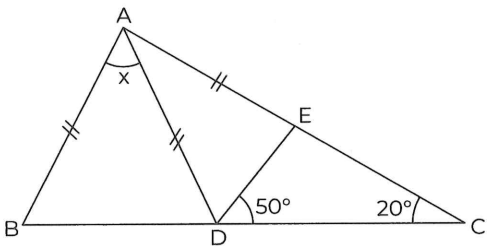
$m(\widehat{EAC}) = x$

$\Rightarrow x = ?$

A) 45 B) 50 C) 55 D) 60 E) 90

IRANINOVIN

13.



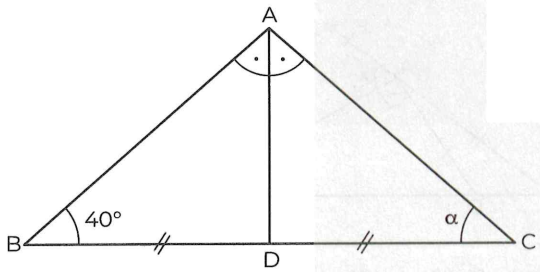
$m(\widehat{EDC}) = 50°$, $m(\widehat{ACB}) = 20°$

$|AB| = |AD| = |AE|$, $m(\widehat{BAD}) = x$

$\Rightarrow x = ?$

A) 20 B) 25 C) 30 D) 50 E) 60

14.



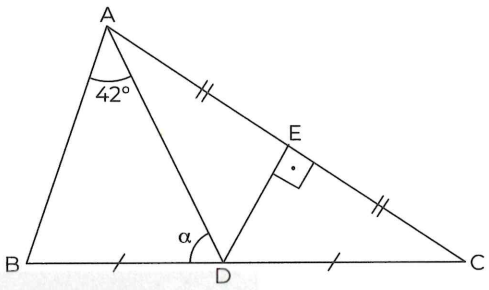
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ABC}) = 40°$

$|BD| = |DC|$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

15.



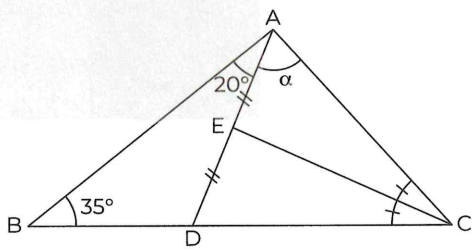
$|AE| = |EC|$, $|BD| = |DC|$, $[DE] \perp [AC]$

$m(\widehat{BAD}) = 42°$, $m(\widehat{ADB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 42 B) 84 C) 96 D) 100 E) 106

16.



$|AE| = |ED|$, $m(\widehat{BCE}) = m(\widehat{ECA})$

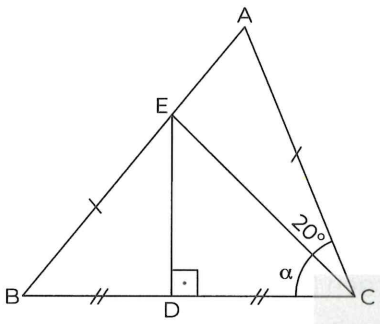
$m(\widehat{ABC}) = 35°$, $m(\widehat{BAD}) = 20°$, $m(\widehat{DAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 35 B) 45 C) 50 D) 55 E) 60

PUZA ACADEMY

17.



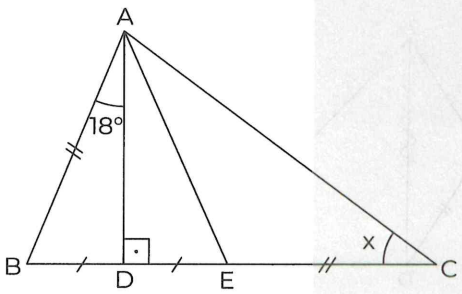
$|AC| = |BE|$, $|BD| = |DC|$, $[ED] \perp [BC]$

$m(\widehat{ECA}) = 20°$, $m(\widehat{ECB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 30 C) 35 D) 40 E) 45

18.



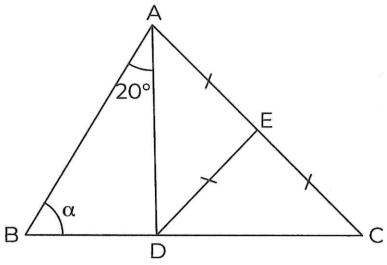
$|AB| = |EC|$, $|BD| = |DE|$, $[AD] \perp [BC]$

$m(\widehat{BAD}) = 18°$, $m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 9 B) 18 C) 24 D) 36 E) 72

19.



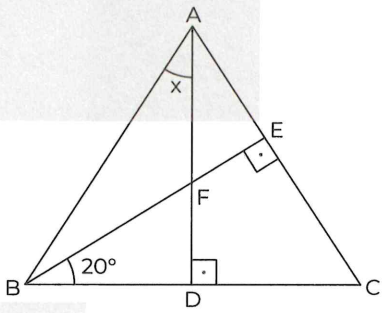
$|AE| = |EC| = |DE|$, $m(\widehat{BAD}) = 20°$

$m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 40 C) 50 D) 60 E) 70

20.



$|AB| = |AC|$, $[AD] \perp [BC]$, $[BE] \perp [AC]$

$m(\widehat{EBC}) = 20°$, $m(\widehat{BAD}) = x$

$\Rightarrow x = ?$

A) 15 B) 20 C) 25 D) 30 E) 40

PUZA ACADEMY

IRANINOVIN

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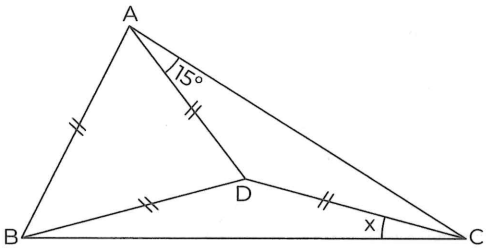
21.



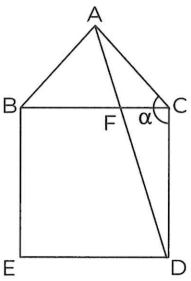
$|AB| = |AD| = |BD| = |DC|$, $m(\widehat{DAC}) = 15°$

$m(\widehat{DCB}) = x$

$\Rightarrow x = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

22.



EBCD **kare** (square)

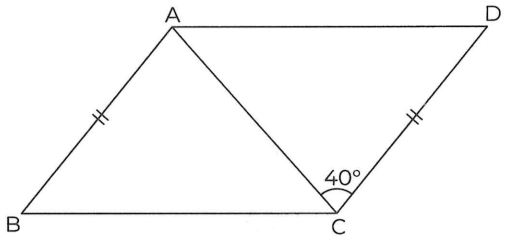
ABC **eşkenar üçgen** (equilateral triangle)

$m(\widehat{ACD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 110 C) 120 D) 150 E) 170

23.

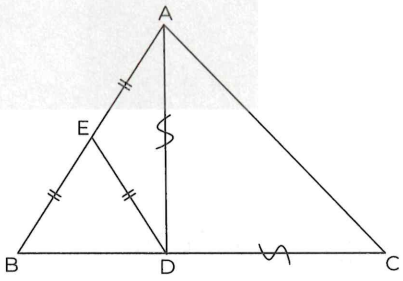


ABC **eşkenar üçgen** (equilateral triangle)

$|AB| = |DC|$, $m(\widehat{ACD}) = 40° \Rightarrow m(\widehat{BAD}) = ?$

A) 70 B) 90 C) 110 D) 130 E) 150

24.



ABC **üçgen** (triangle)

$|AE| = |EB| = |ED|$, $|AD| = |DC|$

$\Rightarrow m(\widehat{BCA}) = ?$

A) 30 B) 45 C) 50 D) 60 E) 75

PUZA ACADEMY

NOTES:

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ANGLE OF TRIANGLE

ÜÇGENDE AÇI

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	C	B	D	C	C	A	D	A	C	D

13	14	15	16	17	18	19	20	21	22	23	24
C	D	C	C	A	E	B	E	D	E	D	B

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
A	C	B	A	A	B	B	D	B	E	D	B

13	14	15	16	17	18	19	20	21	22	23	24
B	D	E	A	D	E	C	D	A	C	D	A

25	26	27	28	29	30	31	32	33	34	35	36
D	C	B	D	D	A	C	C	C	C	D	D

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	A	D	A	A	C	D	D	D	C	C

13	14	15	16	17	18	19	20	21	22	23	24
C	D	D	B	E	A	D	E	C	C	C	D

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
E	B	E	C	C	A	C	B	D	A	A	D

13	14	15	16	17	18	19	20	21	22	23	24
E	C	C	D	D	D	E	B	B	D	D	B

NOTES:

NOTES:

RIGHT TRIANGLE

DİK ÜÇGEN

CHAPTER | BÖLÜM 03

IRANINOVIN

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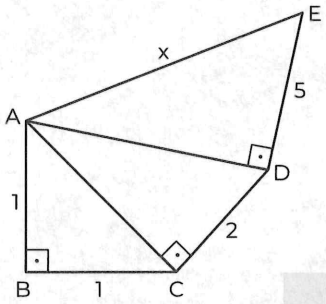
1.



[AB] ⊥ [BC] , [AC] ⊥ [CD] , [AD] ⊥ [ED]

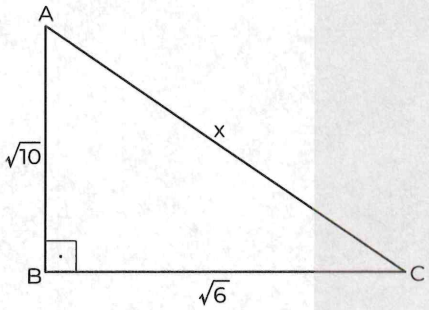
|AB| = |BC| = 1 br , |CD| = 2 br , |ED| = 5 br

|AE| = x

⇒ x = ?

A) 4 B) $4\sqrt{2}$ C) $\sqrt{23}$ D) $\sqrt{31}$ E) 6

2.



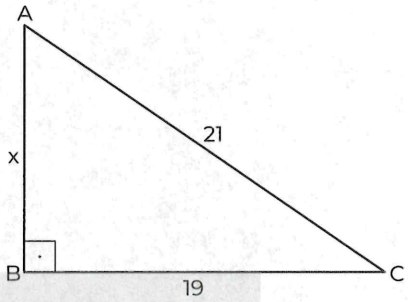
ABC **dik üçgen** (right triangle)

|AB| = $\sqrt{10}$ br , |BC| = $\sqrt{6}$ br , |AC| = x

⇒ x = ?

A) $2\sqrt{3}$ B) $\sqrt{14}$ C) 4 D) $2\sqrt{5}$ E) $\sqrt{22}$

3.



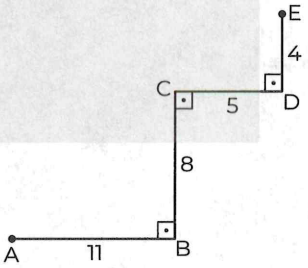
ABC **dik üçgen** (right triangle)

|BC| = 19 br , |AC| = 21 br , |AB| = x

⇒ x = ?

A) 4 B) $4\sqrt{5}$ C) 8 D) $8\sqrt{5}$ E) 20

4.



[AB] ⊥ [BC] , [CD] ⊥ [BC] , [CD] ⊥ [ED]

|ED| = 4 br , |CD| = 5 br , |CB| = 8 br

|AB| = 11 br

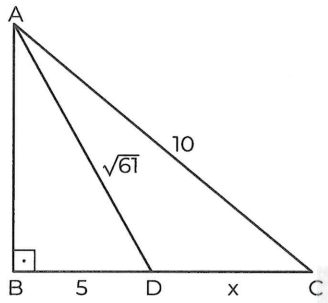
A ile E noktaları arasındaki minimum mesafe nedir?

What is the minimum distance between points A and E?

A) 13 B) 15 C) 17 D) 18 E) 20

PUZA ACADEMY

5.



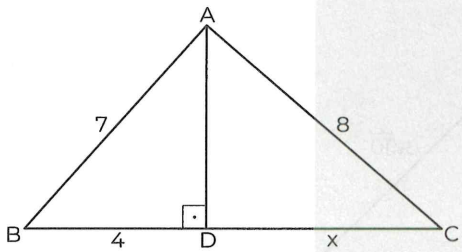
[AB] ⊥ [CB] , |AC| = 10 br , |AD| = $\sqrt{61}$ br

|BD| = 5 br , |DC| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

6.



ABC **üçgen** (triangle)

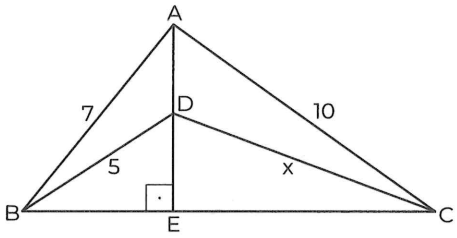
[AD] ⊥ [BC] , |BD| = 4 br , |AB| = 7 br

|AC| = 8 br , |DC| = x

⇒ x = ?

A) $4\sqrt{3}$ B) 5 C) $\sqrt{31}$ D) $4\sqrt{2}$ E) $5\sqrt{2}$

7.



ABC **üçgen** (triangle)

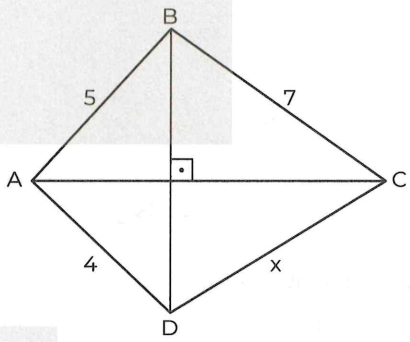
[AE] ⊥ [BC] , |BD| = 5 br , |AB| = 7 br , |AC| = 10 br

|DC| = x

⇒ x = ?

A) 6 B) $2\sqrt{13}$ C) $2\sqrt{19}$ D) $\sqrt{57}$ E) 8

8.



[AC] ⊥ [BD] , |AD| = 4 br , |AB| = 5 br

|BC| = 7 br , |DC| = x

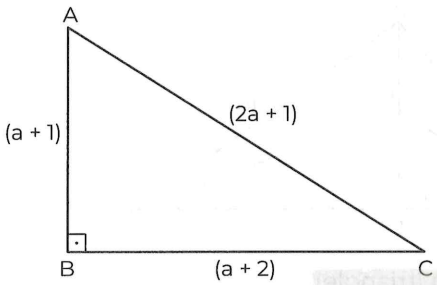
⇒ x = ?

A) 2 B) $2\sqrt{10}$ C) $3\sqrt{2}$ D) 4 E) $4\sqrt{5}$

PUZA ACADEMY

IRANINOVIN

9.



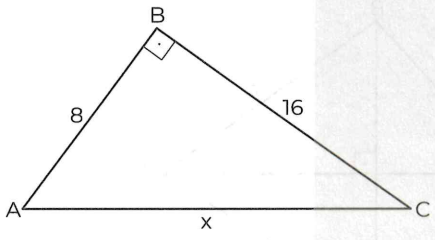
ABC **dik üçgen** (right triangle)

$|AB| = (a + 1)$ br, $|BC| = (a + 2)$ br, $|AC| = (2a + 1)$ br

$\Rightarrow$ a = ?

A) 1 B) 2 C) 3 D) 4 E) 5

10.



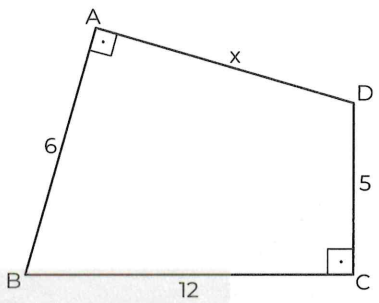
ABC **dik üçgen** (right triangle)

$|AB| = 8$ br, $|BC| = 16$ br, $|AC| = x$

$\Rightarrow x = ?$

A) $8\sqrt{2}$ B) $8\sqrt{3}$ C) $8\sqrt{5}$ D) 16 E) $16\sqrt{5}$

11.



$[BA] \perp [DA]$, $[DC] \perp [BC]$, $|AB| = 6$ br

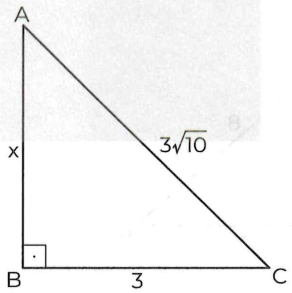
$|BC| = 12$ br , $|DC| = 5$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) $4\sqrt{15}$ C) $\sqrt{133}$

D) $\sqrt{136}$ E) $2\sqrt{35}$

12.



ABC **dik üçgen** (right triangle)

$|BC| = 3$ br, $|AC| = 3\sqrt{10}$ br, $|AB| = x$

$\Rightarrow x = ?$

A) $3\sqrt{2}$ B) $3\sqrt{3}$ C) 6 D) $6\sqrt{2}$ E) 9

PUZA ACADEMY

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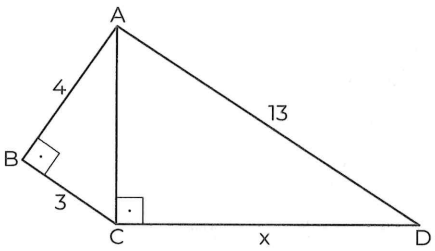
IRANINOVIN

13.



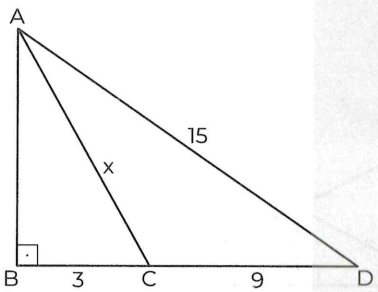
ABC, ACD **dik üçgen** (right triangle)

$|BC| = 3$ br, $|AB| = 4$ br, $|AD| = 13$ br, $|CD| = x$

$\Rightarrow x = ?$

A) 5 B) 7 C) 9 D) 12 E) 15

14.



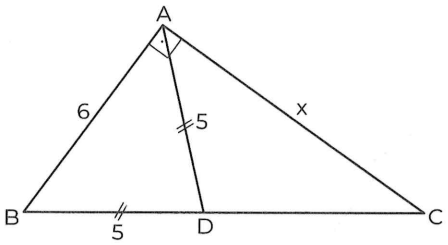
ABD **dik üçgen** (right triangle)

$|BC| = 3$ br, $|CD| = 9$ br, $|AD| = 15$ br, $|AC| = x$

$\Rightarrow x = ?$

A) $3\sqrt{2}$ B) $3\sqrt{3}$ C) 4 D) $3\sqrt{10}$ E) 5

15.



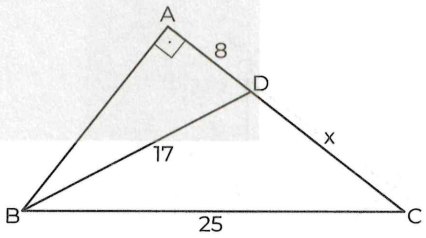
BAC **dik üçgen** (right triangle)

$|AD| = |BD| = 5$ br, $|AB| = 6$ br, $|AC| = x$

$\Rightarrow x = ?$

A) 7 B) 8 C) $8\sqrt{2}$ D) 9 E) 10

16.



BAC **dik üçgen** (right triangle)

$|AD| = 8$ br, $|BD| = 17$ br, $|BC| = 25$ br

$|DC| = x$

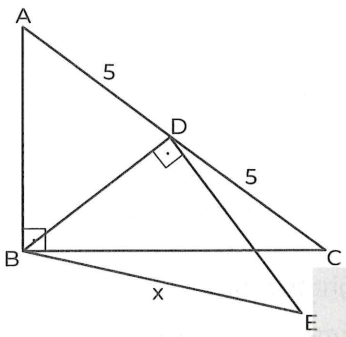
$\Rightarrow x = ?$

A) 10 B) 11 C) 12 D) 13 E) 14

PUZA ACADEMY

IRANINOVIN

17.



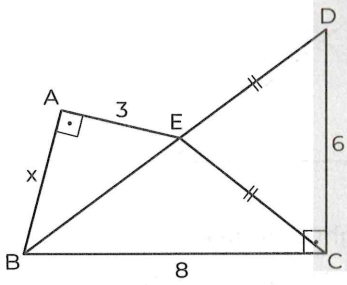
ABC **dik üçgen** (right triangle)

[BD] ⊥ [DE], |AD| = |DC| = 5 br, |DE| = 12 br

|BE| = x ⇒ x = ?

A) $5\sqrt{2}$ B) 7 C) 12 D) 13 E) 17

18.



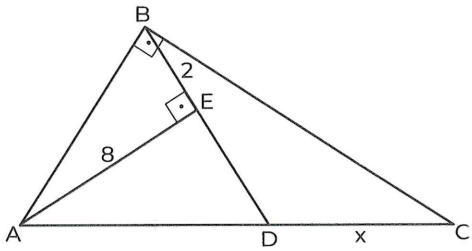
BAE, DCB **dik üçgen** (right triangle)

|DE| = |CE|, |AE| = 3 br, |DC| = 6 br, |BC| = 8 br

|AB| = x ⇒ x = ?

A) $3\sqrt{2}$ B) 4 C) $4\sqrt{2}$ D) 5 E) $5\sqrt{2}$

19.



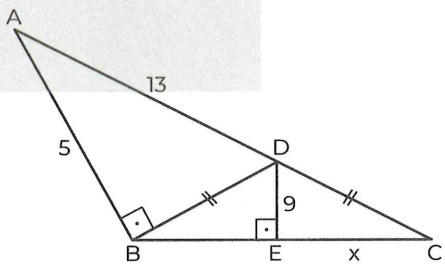
ABC **dik üçgen** (right triangle)

[AE] ⊥ [BD], |AD| = |DC|, |BE| = 2 br, |AE| = 8 br

|DC| = x ⇒ x = ?

A) 8 B) 10 C) 12 D) 15 E) 17

20.



[AB] ⊥ [BD] , [DE] ⊥ [BC] , |BD| = |DC|

|AD| = 13 br , |DE| = 9 br , |AB| = 5 br

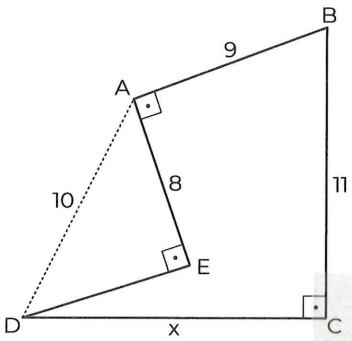
|EC| = x

⇒ x = ?

A) 15 B) 10 C) 9 D) $3\sqrt{7}$ E) $\sqrt{15}$

PUZA ACADEMY

21.



ABCD **dörtgen** (quadrilateral)

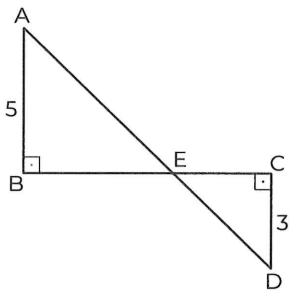
[BA] ⊥ [AE], [AE] ⊥ [ED], [BC] ⊥ [CD]

|AE| = 8 br, |AB| = 9 br, |AD| = 10 br, |BC| = 11 br

|DC| = x ⇒ x = ?

A) $2\sqrt{13}$ B) 17 C) $17\sqrt{2}$ D) $2\sqrt{42}$ E) $6\sqrt{7}$

22.



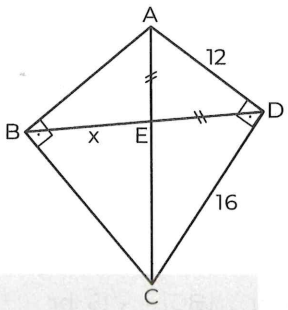
ABE, ECD **dik üçgen** (right triangle)

B, E, C **doğrusal** (linear)

|AB| = 5 br, |CD| = 3 br, |AD| = 17 br, |BC| = x ⇒ x = ?

A) 12 B) 13 C) 14 D) 15 E) 16

23.



ABC ve ADC **dik üçgen** (right triangle)

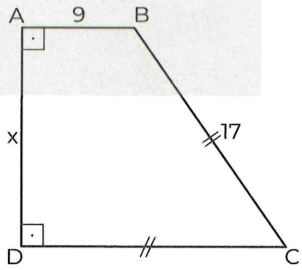
|AE| = |ED| , |AD| = 12 br , |DC| = 16 br , |BE|= x

⇒ x = ?

A) 6 B) 8 C) 9 D) 10 E) 12

PUZA ACADEMY

24.



[BA] ⊥ [AD], [AD] ⊥ [DC],

|BC| = |DC| = 17 br, |AB| = 9 br

|AD| = x

⇒ x = ?

A) 7 B) 8 C) 9 D) 12 E) 15

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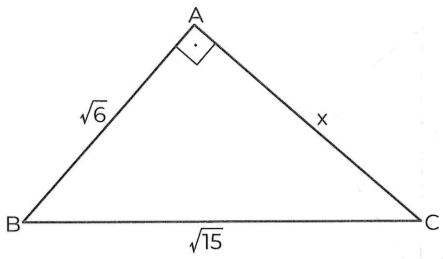
IRANINOVIN

1.



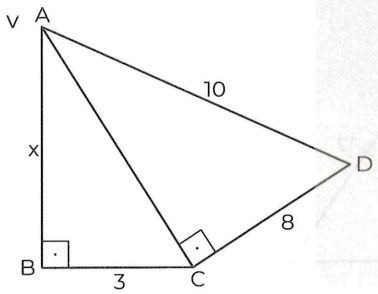
[BA] ⊥ [CA] , |AB| = $\sqrt{6}$ br , |BC| = $\sqrt{15}$ br

|AC| = x

⇒ x = ?

A) 3 B) 4 C) 5 D) 10 E) 11

2.



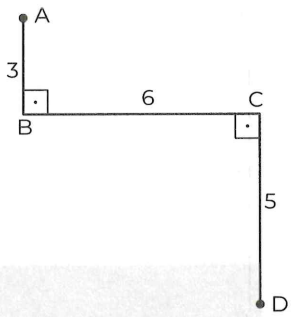
[AB] ⊥ [CB] , [AC] ⊥ [DC] , |AD| = 10 br

|CD| = 8 br , |BC| = 3 br , |AB| = x

⇒ x = ?

A) 2 B) $2\sqrt{3}$ C) $3\sqrt{3}$ D) 6 E) 9

3.



[AB] ⊥ [CB] , [BC] ⊥ [DC] , |AB| = 3 br

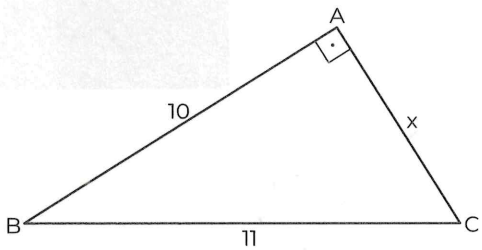
|BC| = 6 br , |CD| = 5 br

A ile D noktaları arasındaki minimum mesafe nedir?

What is the minimum distance between points A and D?

A) 10 B) 13 C) 15 D) 18 E) 20

4.



[AB] ⊥ [AC] , |AB| = 10 br , |BC| = 11 br

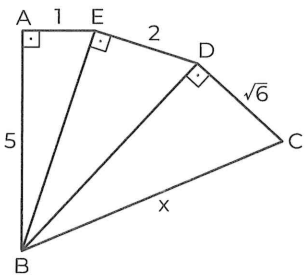
|AC| = x

⇒ x = ?

A) $\frac{\sqrt{21}}{2}$ B) $\sqrt{21}$ C) $\frac{5}{2}$ D) 5 E) $\frac{15}{2}$

PUZA ACADEMY

5.



[BA] ⊥ [EA] , [BE] ⊥ [DE] , [BD] ⊥ [CD]

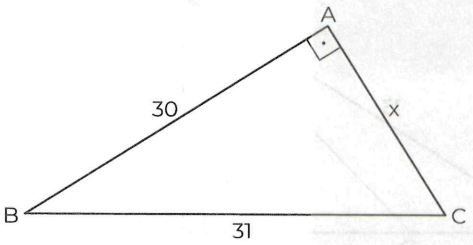
|AE| = 1 br , |ED| = 2 br , |DC| = $\sqrt{6}$ br

|AB| = 5 br , |BC| = x

⇒ x = ?

A) $3\sqrt{3}$ B) $\sqrt{30}$ C) $\sqrt{33}$ D) 6 E) $6\sqrt{2}$

6.



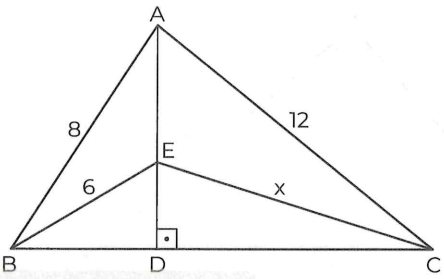
[AB] ⊥ [AC] , |AB| = 30 br , |BC| = 31 br

|AC| = x

⇒ x = ?

A) $\sqrt{2}$ B) $\sqrt{5}$ C) $2\sqrt{5}$ D) 6 E) $\sqrt{61}$

7.



ABC **üçgen** (triangle)

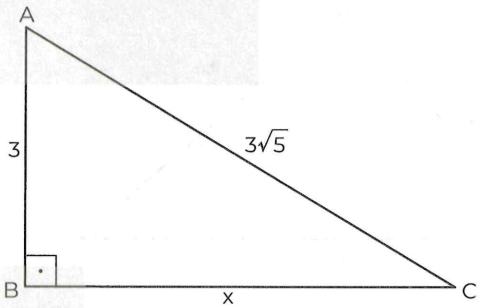
[AD] ⊥ [BC] , |BE| = 6 br , |AB| = 8 br

|AC| = 12 br , |EC| = x

⇒ x = ?

A) 4 B) $2\sqrt{21}$ C) $2\sqrt{29}$ D) $3\sqrt{15}$ D) $4\sqrt{7}$

8.



[AB] ⊥ [BC] , |AB| = 3 br , |AC| = $3\sqrt{5}$ br

|BC| = x

⇒ x = ?

A) 3 B) $3\sqrt{2}$ C) $3\sqrt{3}$ D) $3\sqrt{5}$ E) 6

PUZA ACADEMY

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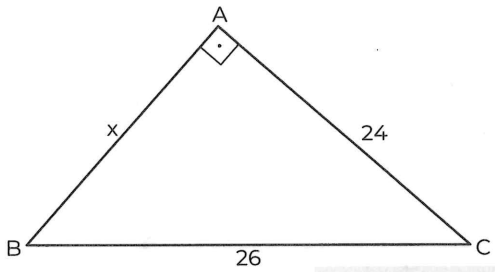
IRANINOVIN

9.



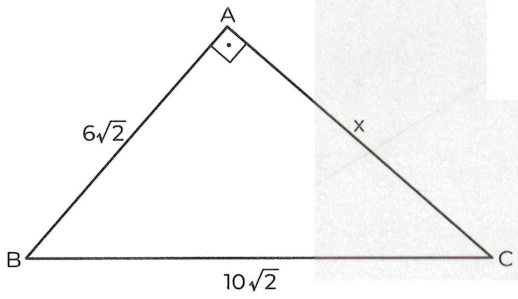
[AB] ⊥ [AC] , |AC| = 24 br , |BC| = 26 br

|AB| = x

⇒ x = ?

A) 10 B) 12 C) 15 D) 20 E) 22

10.



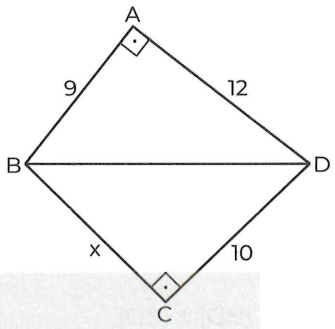
[BA] ⊥ [CA] , |AB| = $6\sqrt{2}$ br , |BC| = $10\sqrt{2}$ br

|AC| = x

⇒ x = ?

A) 4 B) $4\sqrt{2}$ C) $8\sqrt{2}$ D) $6\sqrt{2}$ E) $4\sqrt{3}$

11.



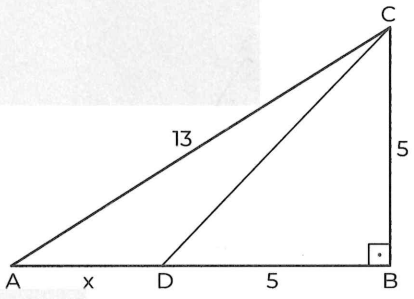
[BA] ⊥ [DA] , [BC] ⊥ [DC] , |AB| = 9 br

|AD| = 12 br , |DC| = 10 br , |BC| = x

⇒ x = ?

A) $\sqrt{5}$ B) 5 C) $5\sqrt{3}$ D) $5\sqrt{5}$ E) 20

12.



ABC **dik üçgen** (right triangle)

[CB] ⊥ [AB] , |BC| = |DB| = 5 br , |AC| = 13 br

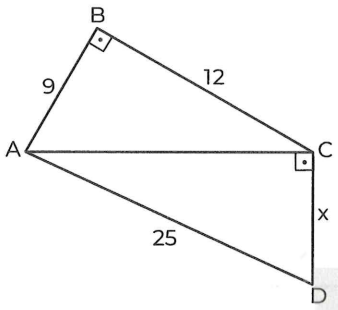
|AD| = x

⇒ x = ?

A) 5 B) 6 C) 7 D) 8 E) 9

PUZA ACADEMY

13.



ABC ve ACD **dik üçgen** (right triangle)

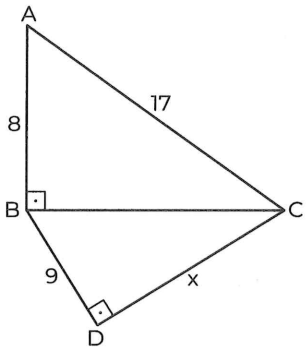
$|AB| = 9$ br , $|BC| = 12$ br , $|AD| = 25$ br

$|CD| = x$

$\Rightarrow x = ?$

A) 15 B) 18 C) 19 D) 20 E) 22

14.



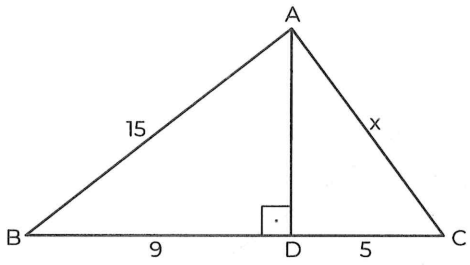
$[AB] \perp [CB]$, $[BD] \perp [CD]$, $|AC| = 17$ br

$|BD| = 9$ br , $|AB| = 8$ br , $|DC| = x$

$\Rightarrow x = ?$

A) 7 B) 10 C) 12 D) 14 E) 15

15.



$[AD] \perp [BC]$, $|AB| = 15$ br , $|BD| = 9$ br

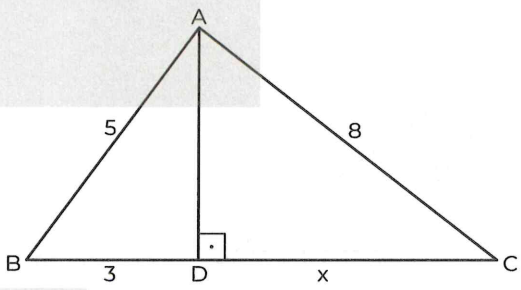
$|DC| = 5$ br , $|AC| = x$

$\Rightarrow x = ?$

A) 13 B) 10 C) 8 D) 6 E) 7

PUZA ACADEMY

16.



$[AD] \perp [BC]$, $|AB| = 5$ br , $|AC| = 8$ br

$|BD| = 3$ br , $|DC| = x$

$\Rightarrow x = ?$

A) 2 B) $2\sqrt{3}$ C) 4 D) $4\sqrt{3}$ E) 6

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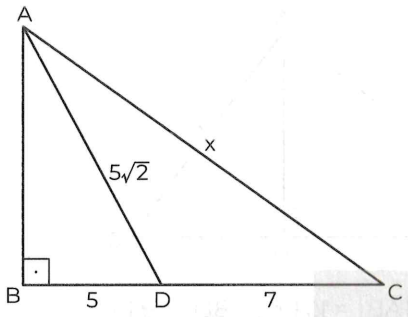
IRANINOVIN

17.



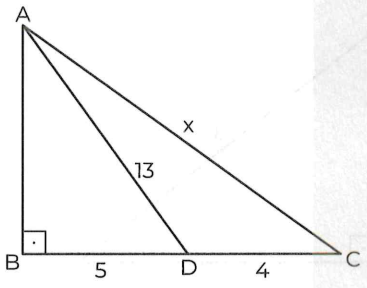
[AB] ⊥ [BC] , |AD| = $5\sqrt{2}$ br , |BD| = 5 br

|DC| = 7 br , |AC| = x

⇒ x = ?

A) 7 B) 10 C) 13 D) 14 E) 15

18.



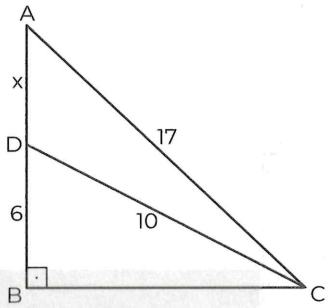
[AB] ⊥ [CB] , |AD| = 13 br , |BD| = 5 br

|DC| = 4 br , |AC| = x

⇒ x = ?

A) 17 B) 15 C) 13 D) 11 E) 10

19.



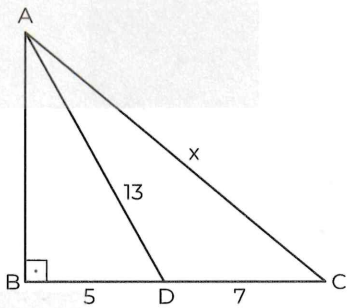
[AB] ⊥ [CB] , |AC| = 17 br , |DC| = 10 br

|DB| = 6 br , |AD| = x

⇒ x = ?

A) 15 B) 12 C) 9 D) 8 E) 7

20.



[AB] ⊥ [CB] , |AD| = 13 br , |DC| = 7 br

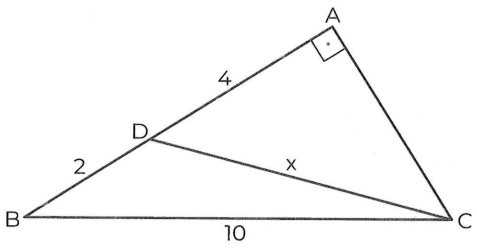
|BD| = 5 br , |AC| = x

⇒ x = ?

A) 12 B) $12\sqrt{2}$ C) 15 D) $15\sqrt{2}$ E) 17

PUZA ACADEMY

21.



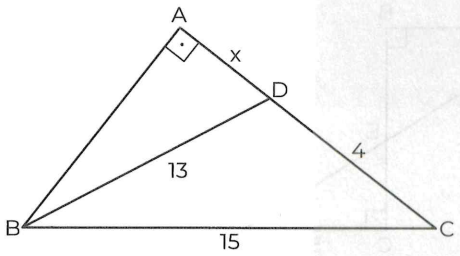
[AB] ⊥ [AC] , |BC| = 10 br , |AD| = 4 br

|BD| = 2 br , |DC| = x

⇒ x = ?

A) 4 B) $4\sqrt{2}$ C) $4\sqrt{5}$ D) 8 E) $8\sqrt{5}$

22.



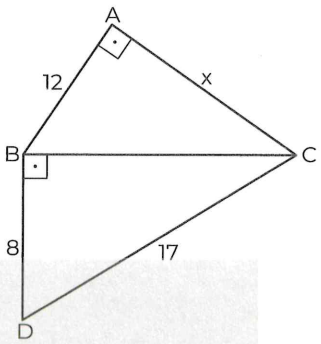
[BA] ⊥ [CA] , |BD| = 13 br , |BC| = 15 br

|DC| = 4 br , |AD| = x

⇒ x = ?

A) 2 B) 5 C) 7 D) 12 E) 13

23.



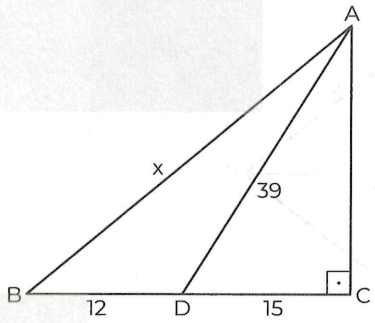
[AB] ⊥ [AC] , [BD] ⊥ [BC] , |AB| = 12 br

|BD| = 8 br , |DC| = 17 br , |AC| = x

⇒ x = ?

A) 8 B) 9 C) 10 D) 11 E) 12

24.



[AC] ⊥ [BC] , |AD| = 39 br , |DC| = 15 br

|BD| = 12 br , |AB| = x

⇒ x = ?

A) 48 B) 47 C) 46 D) 45 E) 44

PUZA ACADEMY

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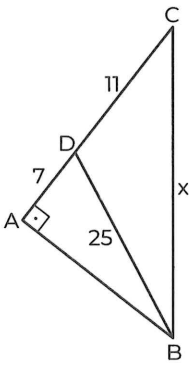
25.



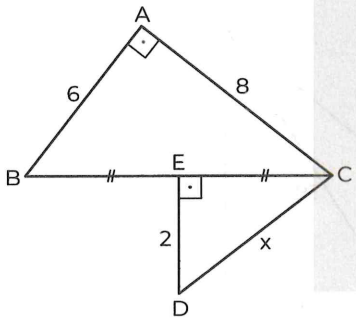
[AC] ⊥ [AB] , |DB| = 25 br , |DC| = 11 br

|AD| = 7 br , |BC| = x

⇒ x = ?

A) 16 B) 20 C) 24 D) 25 E) 30

26.



[BA] ⊥ [CA] , [CE] ⊥ [DE] , |BE| = |EC|

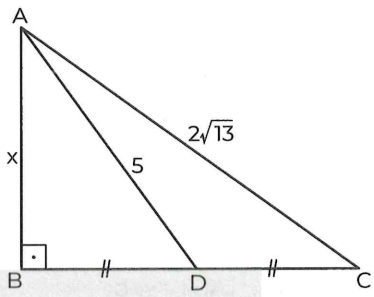
|AB| = 6 br , |AC| = 8 br , |DE| = 2 br

|DC| = x

⇒ x = ?

A) $2\sqrt{2}$ B) 4 C) 5 D) $\sqrt{29}$ E) $\sqrt{35}$

27.



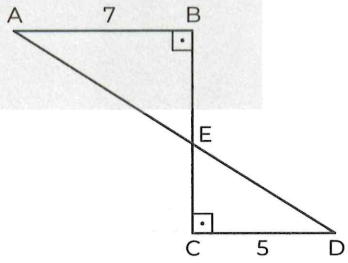
[AB] ⊥ [CB] , |BD| = |DC| , |AC| = $2\sqrt{13}$ br

|AD| = 5 br , |AB| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) $2\sqrt{5}$ E) $4\sqrt{5}$

28.



[AB] ⊥ [BC] , [BC] ⊥ [CD] , |AB| = 7 br

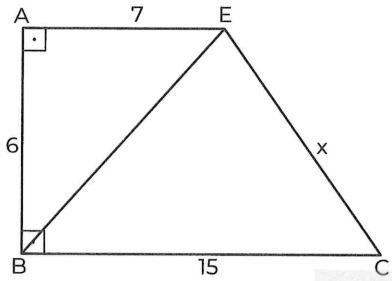
|BC| = 9 br , |CD| = 5 br

⇒ |AD| = ?

A) 15 B) 13 C) 12 D) 10 E) 8

PUZA ACADEMY

29.



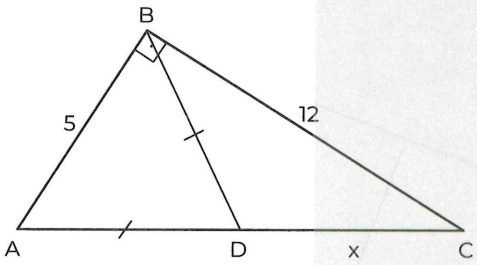
$[AB] \perp [AE]$, $[AB] \perp [BC]$, $|AB| = 6$ br

$|AE| = 7$ br , $|BC| = 15$ br , $|EC| = x$

$\Rightarrow x = ?$

A) 5 B) $6\sqrt{2}$ C) 8 D) $8\sqrt{2}$ E) 10

30.



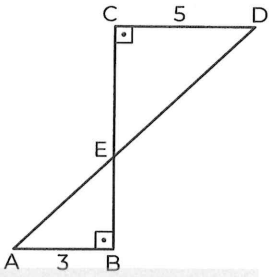
ABC **dik üçgen** (right triangle)

$|AD| = |BD|$, $|AB| = 5$ br , $|BC| = 12$ br , $|DC| = x$

$\Rightarrow x = ?$

A) 5 B) 7 C) $\frac{13}{2}$ D) $\frac{15}{2}$ E) 8

31.



$|AB| = 3$ br , $|CD| = 5$ br , $|CB| = 15$ br

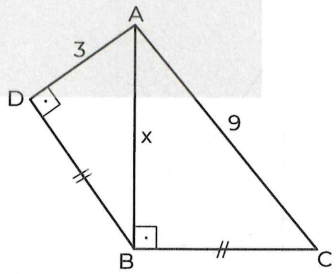
C, E, B **doğrusal** (linear)

A, E, D **doğrusal** (linear)

$\Rightarrow |AD| = ?$

A) 15 B) 16 C) 17 D) 18 E) 20

32.



ADB, ABC **dik üçgen** (right triangle)

$|BD| = |BC|$, $|AD| = 3$ br, $|AC| = 9$ br, $|AB| = x$

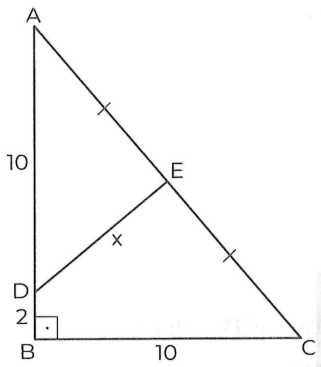
$\Rightarrow x = ?$

A) 4 B) $2\sqrt{5}$ C) $6\sqrt{5}$ D) $4\sqrt{2}$ E) 6

PUZA ACADEMY

IRANINOVIN

33.



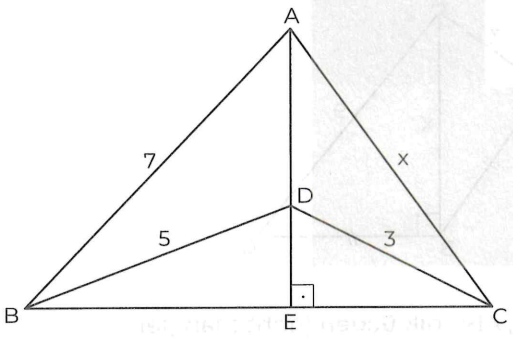
ABC **dik üçgen** (right triangle)

$|AE| = |EC|$, $|DB| = 2$ br, $|AD| = |BC| = 10$ br

$|DE| = x \Rightarrow x = ?$

A) 3 B) $4\sqrt{2}$ C) $\sqrt{41}$ D) 7 E) $5\sqrt{2}$

34.



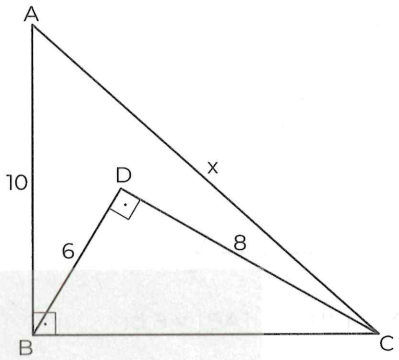
ABC **üçgen** (triangle)

$[AE] \perp [BC]$, $|DC| = 3$ br, $|BD| = 5$ br, $|AB| = 7$ br

$|AC| = x \Rightarrow x = ?$

A) $2\sqrt{5}$ B) 5 C) $\sqrt{30}$ D) $\sqrt{33}$ E) 6

35.



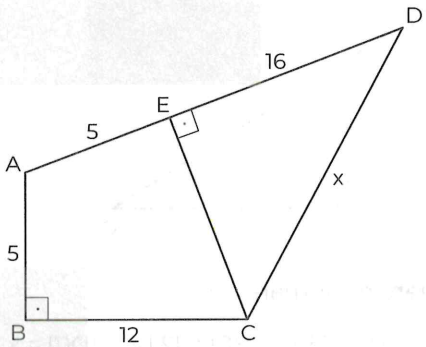
ABC **dik üçgen** (right triangle)

$[BD] \perp [DC]$, $|BD| = 6$ br, $|DC| = 8$ br

$|AB| = 10$ br, $|AC| = x \Rightarrow x = ?$

A) 10 B) 12 C) $10\sqrt{2}$ D) $10\sqrt{3}$ E) $10\sqrt{5}$

36.



ABCD **dörtgen** (quadrilateral)

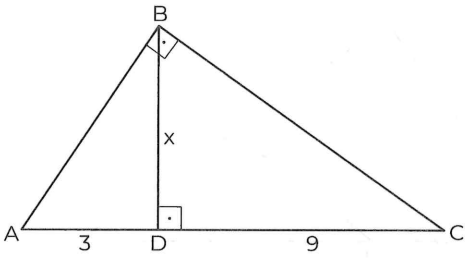
$[AB] \perp [BC]$, $[CE] \perp [AD]$, $|AB| = |AE| = 5$ br

$|BC| = 12$ br, $|ED| = 16$ br, $|DC| = x \Rightarrow x = ?$

A) 12 B) 13 C) 15 D) 17 E) 20

PUZA ACADEMY

1.



ABC **dik üçgen** (right triangle)

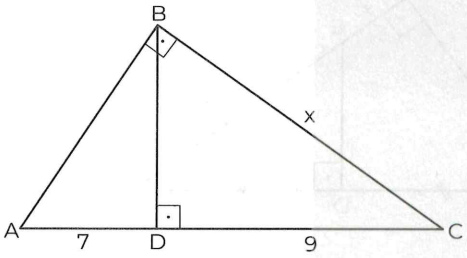
[BD] ⊥ [AC], |AD| = 3 br, |DC| = 9 br, |BD| = x

⇒ x = ?

A) $2\sqrt{3}$ B) $2\sqrt{6}$ C) $3\sqrt{2}$

D) $3\sqrt{3}$ E) 6

2.



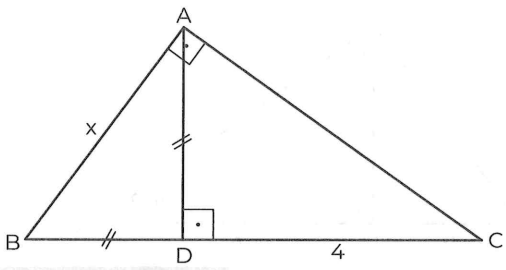
ABC **dik üçgen** (right triangle)

[BD] ⊥ [AC], |AD| = 7 br, |DC| = 9 br, |AC| = x

⇒ x = ?

A) 3 B) 4 C) 8 D) 10 E) 12

3.

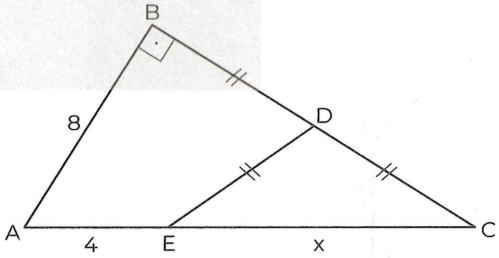


[BA] ⊥ [CA] , [AD] ⊥ [BC] , |AD| = |BD|

|DC| = 4 br , |AB| = x ⇒ x = ?

A) $2\sqrt{2}$ B) 4 C) $4\sqrt{2}$ D) 8 E) $8\sqrt{2}$

4.



ABC **dik üçgen** (right triangle)

|AE| = 4 br, |AB| = 8 br, |BD| = |ED| = |DC|,

|EC| = x

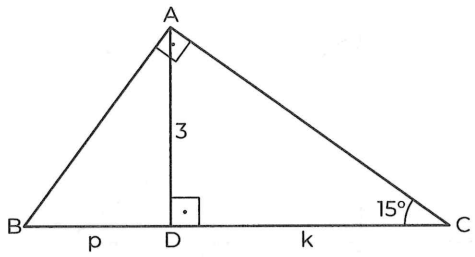
⇒ x = ?

A) 4 B) 8 C) 12 D) 16 E) 16

PUZA ACADEMY

IRANINOVIN

5.



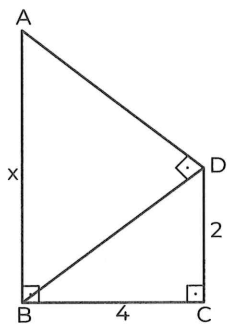
[BA] ⊥ [CA] , [AD] ⊥ [BC] , $m(\widehat{ACB}) = 15°$

|AD| = 3 br , |BD| = p , |DC| = k

⇒ p + k = ?

A) $\sqrt{7}$ B) $\sqrt{14}$ C) $3\sqrt{14}$ D) 10 E) 12

6.



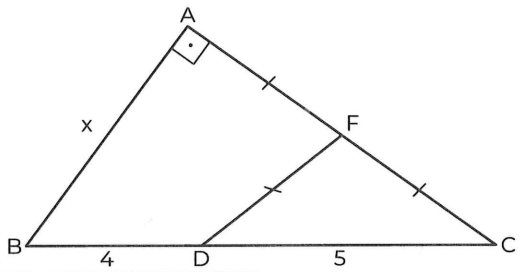
[AD] ⊥ [BD] , [AB] ⊥ [BC] , [DC] ⊥ [BC]

|BC| = 4 br , |DC| = 2 br , |AB| = x

⇒ x = ?

A) 12 B) 10 C) 8 D) 6 E) 4

7.



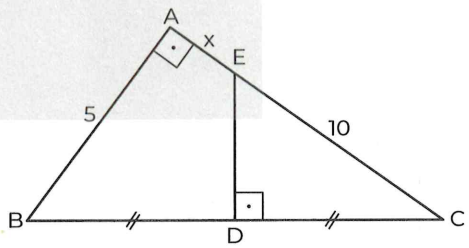
[BA] ⊥ [CA] , |AF| = |FC| = |FD| , |DC| = 5 br

|BD| = 4 br , |AB| = x

⇒ x = ?

A) 2 B) 4 C) 6 D) $6\sqrt{2}$ E) 8

8.



[BA] ⊥ [CA] , [ED] ⊥ [BC] , |EC| = 10 br

|AB| = 5 br , |BD| = |DC| , |AE| = x

⇒ x = ?

A) 5 B) $5\sqrt{2}$ C) $5\sqrt{3}$ D) 10 E) $10\sqrt{2}$

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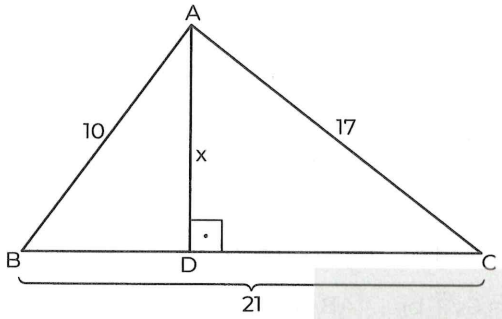
9.

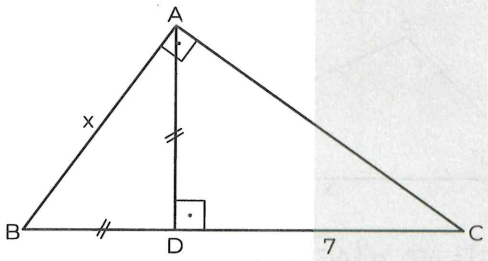


$[AD] \perp [BC]$, $|BC| = 21$ br , $|AC| = 17$ br

$|AB| = 10$ br , $|AD| = x \Rightarrow x = ?$

A) 10 B) 8 C) $6\sqrt{2}$ D) 6 E) $4\sqrt{2}$

10.

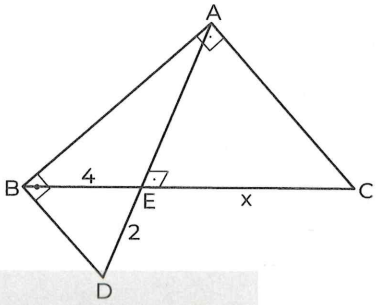


$[BA] \perp [CA]$, $[AD] \perp [BC]$, $|AD| = |BD|$

$|DC| = 7$ br , $|AB| = x \Rightarrow x = ?$

A) $2\sqrt{2}$ B) 4 C) $4\sqrt{2}$ D) 8 E) $7\sqrt{2}$

11.



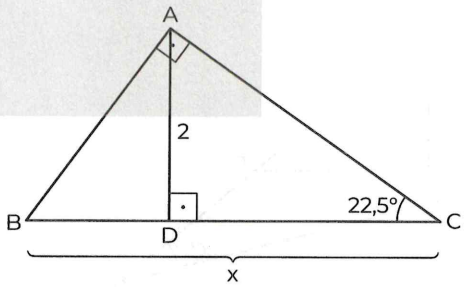
BAC, ABD **dik üçgen** (right triangle)

$[AD] \perp [BC]$, $|DE| = 2$ br, $|BE| = 4$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 1 B) 4 C) 9 D) 12 E) 16

12.



$[BA] \perp [CA]$, $[AD] \perp [BC]$, $m(\widehat{ACB}) = 22,5°$

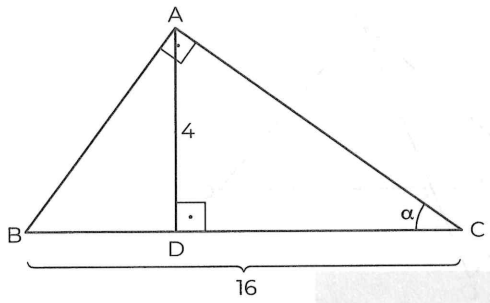
$|AD| = 2$ br , $|BC| = x \Rightarrow x = ?$

A) 2 B) $2\sqrt{2}$ C) 4 D) $4\sqrt{2}$ E) $8\sqrt{2}$

PUZA ACADEMY

IRANINOVIN

13.



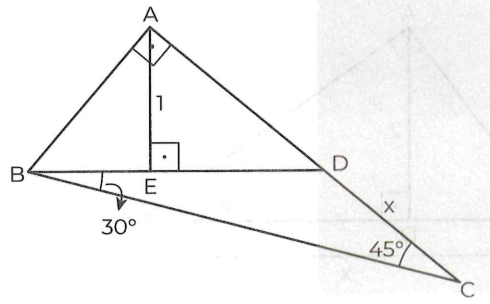
$[AD] \perp [BC]$, $m(\widehat{ABC}) > m(\widehat{ACB})$, $m(\widehat{ACB}) = \alpha$

$|AD| = 4$ br , $|BC| = 16$ br

$\Rightarrow \alpha = ?$

A) 15 B) 30 C) 45 D) 60 E) 75

14.



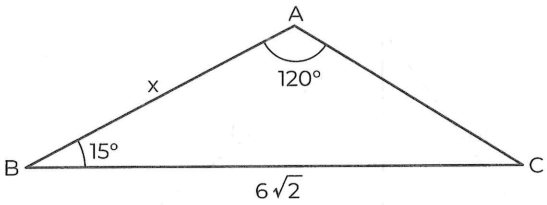
$[BA] \perp [AC]$, $[AE] \perp [BD]$

$m(\widehat{ACB}) = 45°$, $m(\widehat{DBC}) = 30°$

$|AE| = 1$ br , $|DC| = x \Rightarrow x = ?$

A) $\sqrt{2}$ B) 2 C) $2\sqrt{2}$ D) 4 E) 8

15.



$m(\widehat{BAC}) = 120°$, $m(\widehat{ABC}) = 15°$

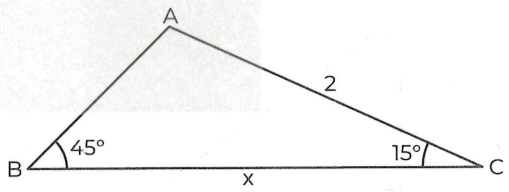
$|BC| = 6\sqrt{2}$ br , $|AB| = x$

$\Rightarrow x = ?$

A) $12\sqrt{3}$ B) 12 C) $8\sqrt{3}$ D) $4\sqrt{3}$ E) 6

PUZA ACADEMY

16.



$m(\widehat{ABC}) = 45°$, $m(\widehat{ACB}) = 15°$, $|AC| = 2$ br

$|BC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{12}$ B) $\sqrt{12}$ C) $\sqrt{10}$ D) 5 E) $\sqrt{6}$

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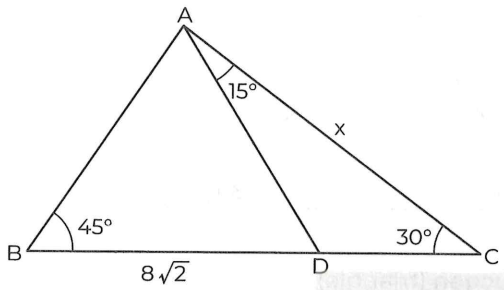
17.



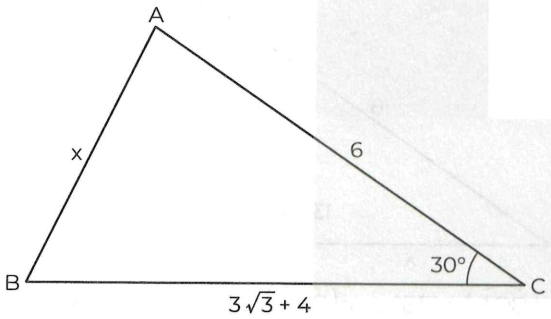
$m(\widehat{ABC}) = 45°$, $m(\widehat{ACB}) = 30°$, $m(\widehat{DAC}) = 15°$

$|BD| = 8\sqrt{2}$ br , $|AC| = x$

$\Rightarrow x = ?$

A) $10\sqrt{2}$ B) $8\sqrt{2}$ C) 10 D) 8 E) 6

18.

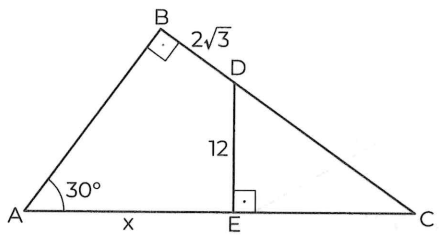


$m(\widehat{ACB}) = 30°$, $|BC| = 3\sqrt{3} + 4$ br

$|AC| = 6$ br , $|AB| = x \Rightarrow x = ?$

A) 10 B) $8\sqrt{2}$ C) 8 D) 5 E) 3

19.



ABC **dik üçgen** (right triangle)

$[DE] \perp [AC]$, $m(\widehat{BAC}) = 30°$, $|BD| = 2\sqrt{3}$ br

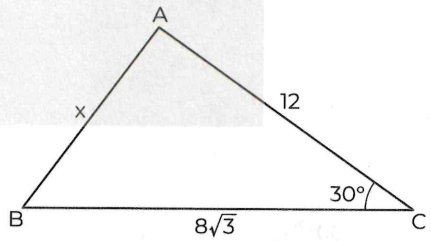
$|DE| = 12$ br, $|AE| = x$

$\Rightarrow x = ?$

A) $4\sqrt{3}$ B) $6\sqrt{3}$ C) $8\sqrt{3}$

D) $12\sqrt{3}$ E) $16\sqrt{3}$

20.



ABC **üçgen** (triangle)

$m(\widehat{ACB}) = 30°$, $|BC| = 8\sqrt{3}$ br, $|AC| = 12$ br,

$|AB| = x$

$\Rightarrow x = ?$

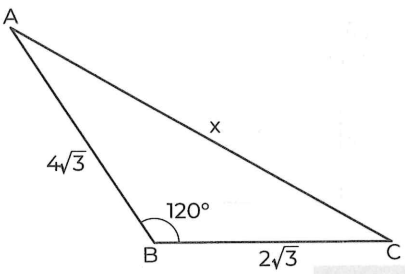
A) $2\sqrt{3}$ B) $4\sqrt{3}$ C) $2\sqrt{11}$

D) $2\sqrt{13}$ E) $\sqrt{43}$

PUZA ACADEMY

IRANINOVIN

21.



ABC **üçgen** (triangle)

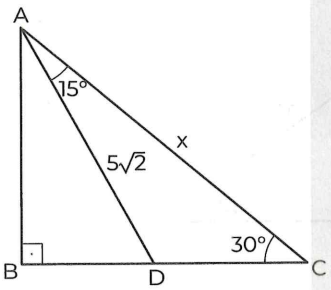
$m(\widehat{ABC}) = 120°$, $|BC| = 2\sqrt{3}$ br, $|AB| = 4\sqrt{3}$ br,

$|AC| = x$

$\Rightarrow x = ?$

A) $\sqrt{17}$ B) $3\sqrt{2}$ C) $2\sqrt{5}$ D) $2\sqrt{21}$ E) $\sqrt{42}$

22.



ABC **dik üçgen** (right triangle)

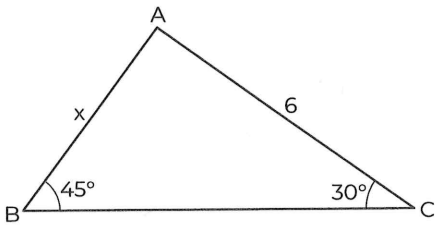
$m(\widehat{DAC}) = 15°$, $m(\widehat{ACB}) = 30°$, $|AD| = 5\sqrt{2}$ br,

$|AC| = x$

$\Rightarrow x = ?$

A) $5\sqrt{3}$ B) 6 C) 10 D) $10\sqrt{2}$ E) 12

23.



ABC **üçgen** (triangle)

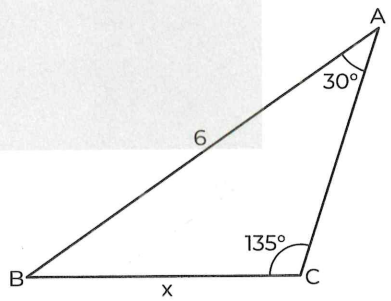
$m(\widehat{ACB}) = 30°$, $m(\widehat{ABC}) = 45°$, $|AC| = 6$ br,

$|AB| = x$

$\Rightarrow x = ?$

A) $3\sqrt{3}$ B) $2\sqrt{6}$ C) 3 D) $3\sqrt{2}$ E) $2\sqrt{2}$

24.



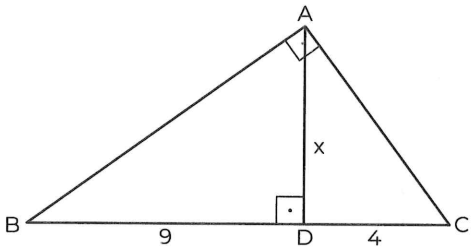
$m(\widehat{BCA}) = 135°$, $m(\widehat{BAC}) = 30°$, $|AB| = 6$ br

$|BC| = x \Rightarrow x = ?$

A) $2\sqrt{2}$ B) $3\sqrt{2}$ C) 4 D) 6 E) $6\sqrt{2}$

PUZA ACADEMY

1.



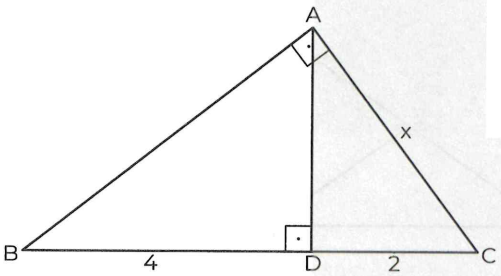
[AB] ⊥ [AC] , |BD| = 9 br , |DC| = 4 br

|AD| = x

⇒ x = ?

A) $2\sqrt{2}$ B) $4\sqrt{2}$ C) 6 D) 8 E) 12

2.



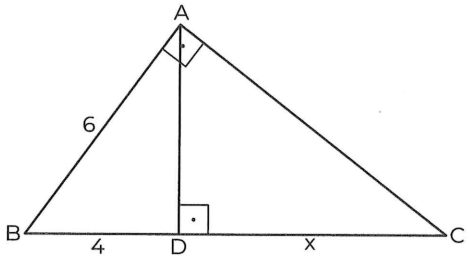
[BA] ⊥ [CA] , [AD] ⊥ [BC] , |BD| = 4 br

|DC| = 2 br , |AC| = x

⇒ x = ?

A) 2 B) $2\sqrt{2}$ C) $2\sqrt{3}$ D) 4 E) 6

3.



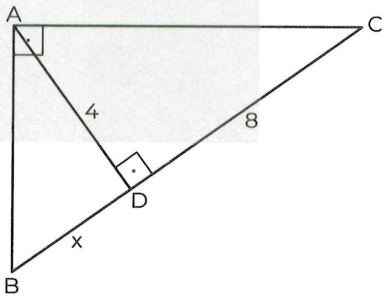
[BA] ⊥ [CA] , [AD] ⊥ [BC] , |AB| = 6 br

|BD| = 4 br , |DC| = x

⇒ x = ?

A) 1 B) 2 C) 4 D) 5 E) 6

4.



[AB] ⊥ [AC] , [AD] ⊥ [BC] , |DC| = 8 br

|AD| = 4 br , |BD| = x

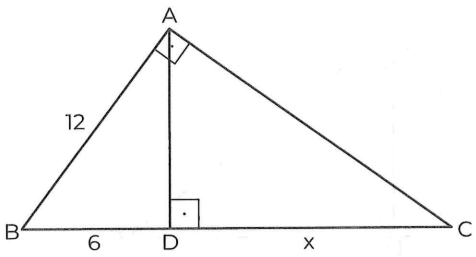
⇒ x = ?

A) 1 B) 2 C) 4 D) 8 E) 10

PUZA ACADEMY

IRANINOVIN

5.



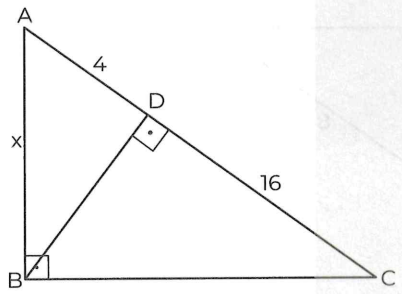
[BA] ⊥ [CA] , [AD] ⊥ [BC] , |AB| = 12 br

|BD| = 6 br , |DC| = x

⇒ x = ?

A) 30 B) 26 C) 24 D) 20 E) 18

6.



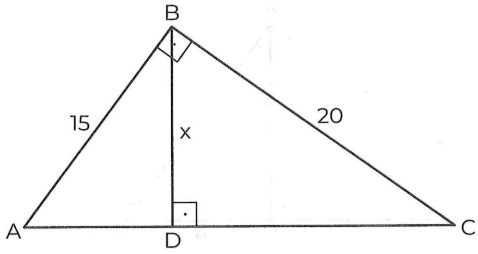
[AB] ⊥ [BC] , [BD] ⊥ [AC] , |DC| = 16 br

|AD| = 4 br , |AB| = x

⇒ x = ?

A) 4 B) $4\sqrt{2}$ C) $4\sqrt{3}$ D) $4\sqrt{5}$ E) 8

7.



ABC **dik üçgen** (right triangle)

[BD] ⊥ [AC], |AB| = 15 br, |BC| = 20 br, |BD| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 15 E) 17

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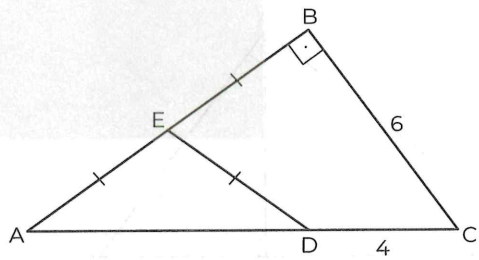
PUZA ACADEMY

8.



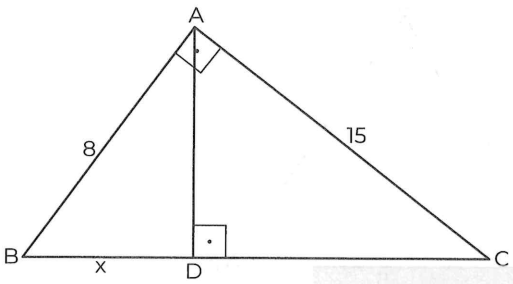
ABC **dik üçgen** (right triangle)

|AE| = |EB| = |ED|, |DC| = 4 br, |BC| = 6 br

⇒ |ED| = ?

A) $3\sqrt{2}$ B) $\frac{3\sqrt{5}}{2}$ C) $3\sqrt{5}$ D) $6\sqrt{5}$ E) 12

9.



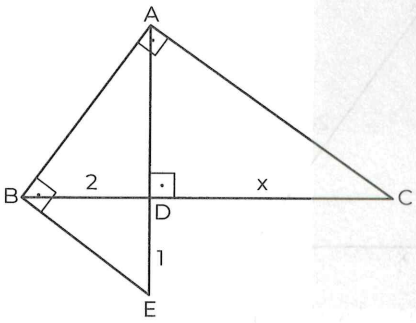
$[BA] \perp [CA]$, $[AD] \perp [BC]$, $|AC| = 15$ br

$|AB| = 8$ br , $|BD| = x$

$\Rightarrow x = ?$

A) 2 B) $\frac{64}{17}$ C) $\frac{15}{7}$ D) $\frac{5}{2}$ E) 6

10.



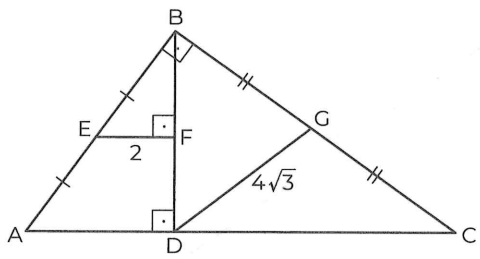
$[BA] \perp [CA]$, $[AB] \perp [EB]$, $[AD] \perp [BC]$

$|BD| = 2$ br , $|DE| = 1$ br , $|DC| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

11.



ABC **dik üçgen** (right triangle)

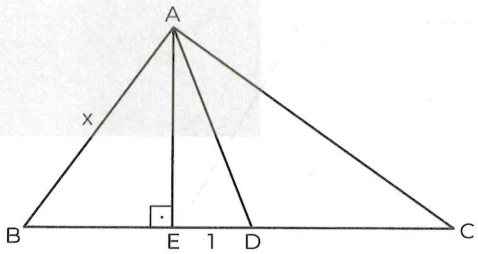
$[EF] \perp [AC]$, $[BD] \perp [AC]$, $|BE| = |EA|$, $|BG| = |GC|$

$|EF| = 2$ br, $|DG| = 4\sqrt{3}$ br

$\Rightarrow |AC| = ?$

A) 12 B) 14 C) 16 D) 18 E) 20

12.



ABC **üçgen** (triangle)

$[AE] \perp [BC]$, $[AD]$ **kenarortay** (median)

$|ED| = 1$ br, $|BC| = 8$ br, $|BC| = 8$ br

Çevre (Circumference) $(\widehat{ABC}) = 24$ br

$|AB| = x \Rightarrow x = ?$

A) 7 B) $\frac{15}{2}$ C) 8 D) $\frac{19}{2}$ E) 13

PUZA ACADEMY

IRANINOVIN

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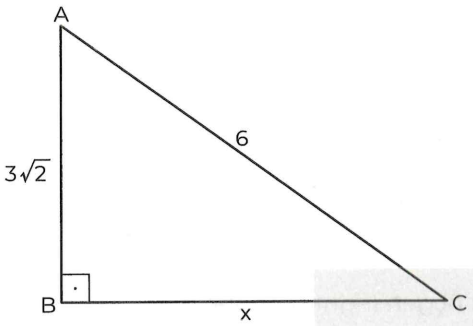
13.

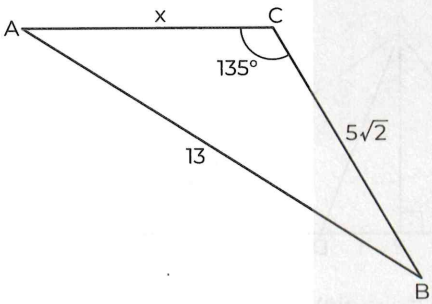


$[AB] \perp [CB]$, $|AB| = 3\sqrt{2}$ br , $|AC| = 6$ br

$|BC| = x \Rightarrow x = ?$

A) $\sqrt{2}$ B) $\sqrt{3}$ C) $3\sqrt{2}$ D) 4 E) $4\sqrt{2}$

14.

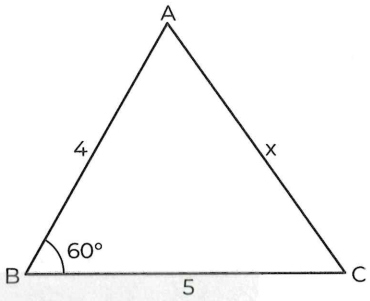


$m(\widehat{ACB}) = 135°$, $|AB| = 13$ br

$|BC| = 5\sqrt{2}$ br , $|AC| = x \Rightarrow x = ?$

A) $10\sqrt{2}$ B) 10 C) $8\sqrt{2}$ D) 8 E) 7

15.



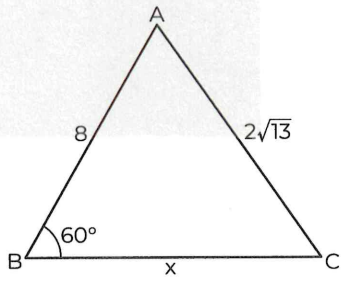
$m(\widehat{ABC}) = 60°$, $|BC| = 5$ br , $|AB| = 4$ br

$|AC| = x$

$\Rightarrow x = ?$

A) 6 B) 5 C) $\sqrt{21}$ D) $\sqrt{15}$ E) $\sqrt{10}$

16.



$m(\widehat{ABC}) = 60°$, $|AB| = 8$ br

$|AC| = 2\sqrt{13}$ br , $|BC| = x$

$\Rightarrow x = ?$

A) 14 B) 12 C) 10 D) 8 E) 6

PUZA ACADEMY

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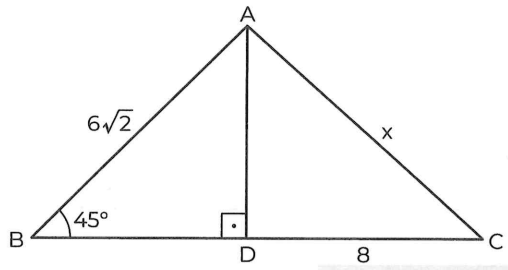
17.



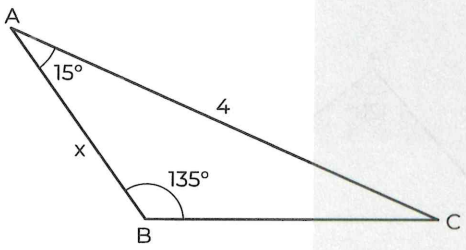
$[AD] \perp [BC]$, $m(\widehat{ABC}) = 45°$, $|AB| = 6\sqrt{2}$ br

$|DC| = 8$ br , $|AC| = x$

$\Rightarrow x = ?$

A) 15 B) 10 C) 12 D) 6 E) 8

18.



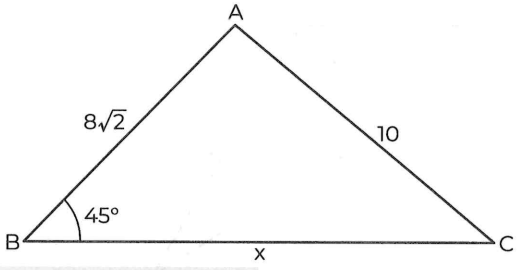
$m(\widehat{BAC}) = 15°$, $m(\widehat{ABC}) = 135°$, $|AC| = 4$ br

$|AB| = x$

$\Rightarrow x = ?$

A) $10\sqrt{2}$ B) 10 C) 8 D) $4\sqrt{2}$ E) $2\sqrt{2}$

19.



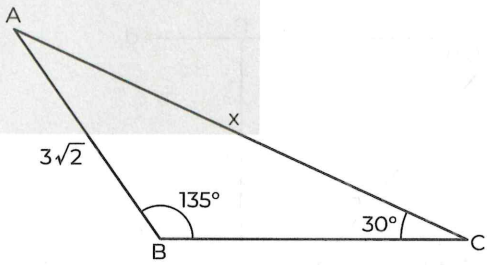
$m(\widehat{ABC}) = 45°$, $|AB| = 8\sqrt{2}$ br , $|AC| = 10$ br

$|BC| = x$

$\Rightarrow x = ?$

A) 14 B) 12 C) 10 D) 8 E) 6

20.



$m(\widehat{ACB}) = 30°$, $m(\widehat{ABC}) = 135°$

$|AB| = 3\sqrt{2}$ br , $|AC| = x$

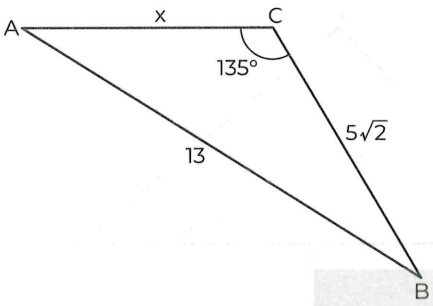
$\Rightarrow x = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

PUZA ACADEMY

IRANINOVIN

21.



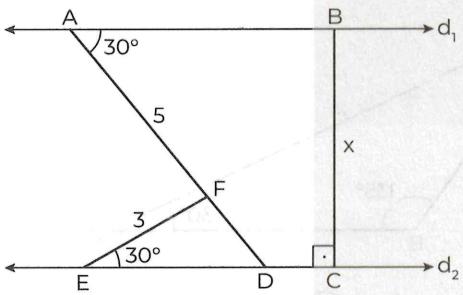
$m(\widehat{ACB}) = 135°$, $|AB| = 13$ br

$|BC| = 5\sqrt{2}$ br , $|AC| = x$

$\Rightarrow x = ?$

A) $10\sqrt{2}$ B) 10 C) $8\sqrt{2}$ D) 8 E) 7

22.



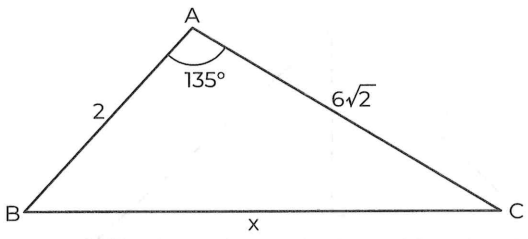
$d_1 // d_2$, $m(\widehat{BAD}) = m(\widehat{FEC}) = 30°$

$|EF| = 3$ br, $|AF| = 5$ br, $|BC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) 4 C) $4\sqrt{2}$ D) 6 E) 8

23.



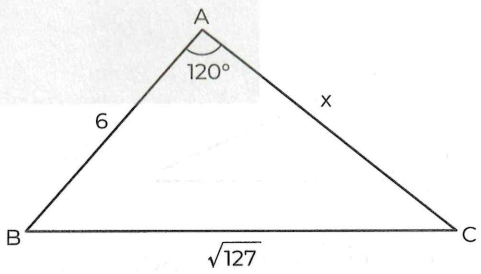
$m(\widehat{BAC}) = 135°$, $|AC| = 6\sqrt{2}$ br

$|AB| = 2$ br , $|BC| = x$

$\Rightarrow x = ?$

A) 20 B) 18 C) 16 D) 10 E) 8

24.



ABC **üçgen** (triangle)

$m(\widehat{BAC}) = 120°$, $|AB| = 6$ br, $|BC| = \sqrt{127}$ br

$|AC| = x \Rightarrow x = ?$

A) 10 B) $10\sqrt{5}$ C) 11 D) $11\sqrt{2}$ E) $12\sqrt{3}$

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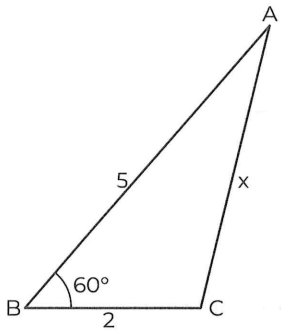
PUZA ACADEMY

25.



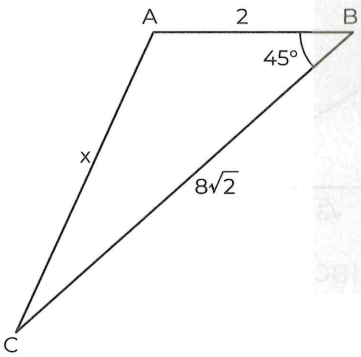
$m(\widehat{ABC}) = 60°$, $|AB| = 5$ br , $|BC| = 2$ br

$|AC| = x$

$\Rightarrow x = ?$

A) 5 B) $\sqrt{21}$ C) $\sqrt{19}$ D) 4 E) $2\sqrt{3}$

26.



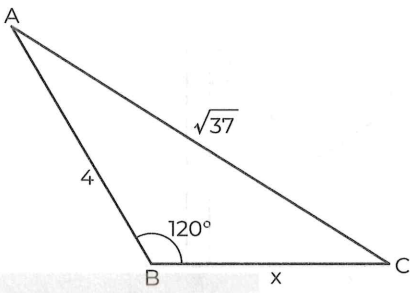
$m(\widehat{ABC}) = 45°$, $|AB| = 2$ br , $|BC| = 8\sqrt{2}$ br

$|AC| = x$

$\Rightarrow x = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

27.



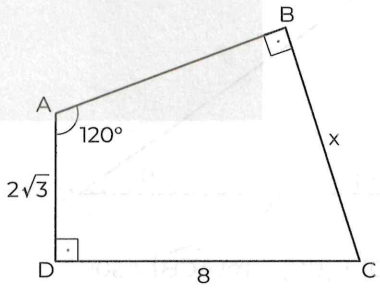
$m(\widehat{ABC}) = 120°$, $|AC| = \sqrt{37}$ br , $|AB| = 4$ br

$|BC| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

28.



ABCD **dörtgen** (quadrilateral)

$[AD] \perp [DC]$, $[AB] \perp [BC]$, $m(\widehat{DAB}) = 120°$

$|AD| = 2\sqrt{3}$ br, $|DC| = 8$ br, $|BC| = x$

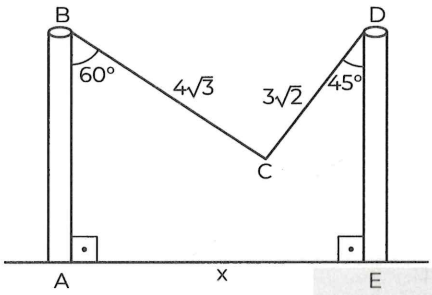
$\Rightarrow x = ?$

A) 4 B) 6 C) 7 D) 8 E) 9

PUZA ACADEMY

IRANINOVIN

29.



A, E **doğrusal** (linear)

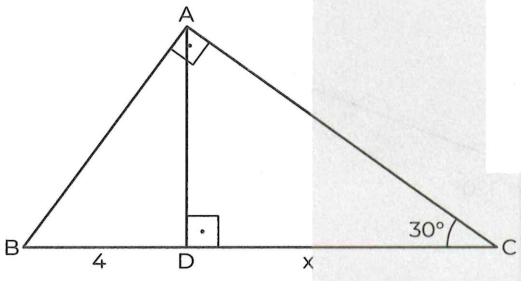
$m(\widehat{ABC}) = 60°$, $m(\widehat{CDE}) = 45°$

$|BC| = 4\sqrt{3}$ br , $|CD| = 3\sqrt{2}$ br , $|AE| = x$

$\Rightarrow x = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

30.



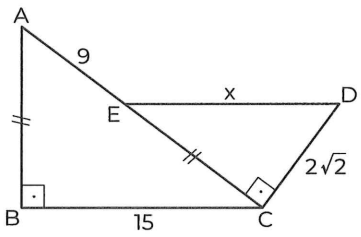
$[BA] \perp [CA]$, $[AD] \perp [BC]$, $m(\widehat{ACB}) = 30°$

$|BD| = 4$, $|DC| = x$

$\Rightarrow x = ?$

A) 4 B) $4\sqrt{2}$ C) $4\sqrt{3}$ D) 12 E) $12\sqrt{2}$

31.



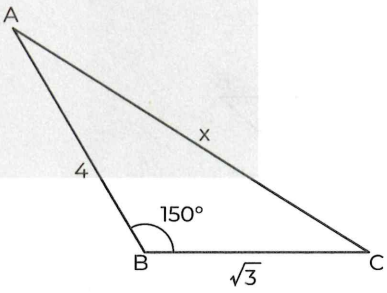
ABC, ECD **dik üçgen** (right triangle)

$|AB| = |EC|$, $|DC| = 2\sqrt{2}$ br, $|AE| = 9$ br

$|BC| = 15$ br, $|ED| = x \Rightarrow x = ?$

A) 4 B) $4\sqrt{3}$ C) $6\sqrt{2}$ D) $6\sqrt{3}$ E) $8\sqrt{5}$

32.



$m(\widehat{ABC}) = 150°$, $|BC| = \sqrt{3}$ br , $|AB| = 4$ br

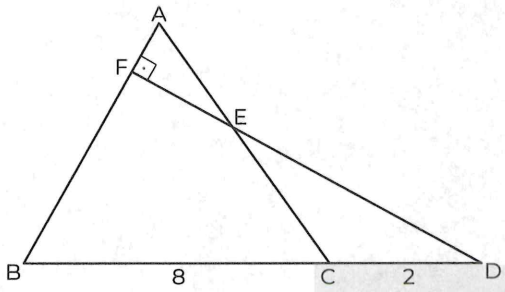
$|AC| = x$

$\Rightarrow x = ?$

A) $\sqrt{57}$ B) $\sqrt{39}$ C) $\sqrt{31}$ D) $\sqrt{30}$ E) 5

PUZA ACADEMY

33.



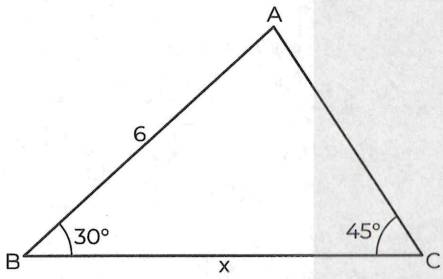
ABC **eşkenar üçgen** (equilateral triangle)

$|CD| = 2$ br, $|BC| = 8$ br, $[DF] \perp [AB]$

$\Rightarrow \frac{|AE|}{|EC|} = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 3

34.



$m(\widehat{ABC}) = 30°$, $m(\widehat{ACB}) = 45°$, $|AB| = 6$ br

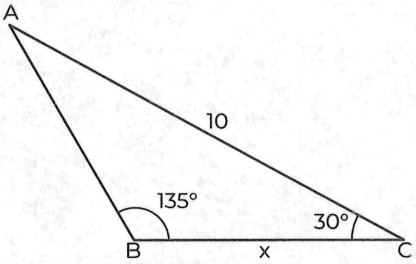
$|BC| = x$

$\Rightarrow x = ?$

A) $2+\sqrt{3}$ B) $2-\sqrt{3}$ C) $3+3\sqrt{3}$

D) $\sqrt{3}+3$ E) $4+2\sqrt{3}$

35.



$m(\widehat{ACB}) = 30°$, $m(\widehat{ABC}) = 135°$, $|AC| = 10$ br

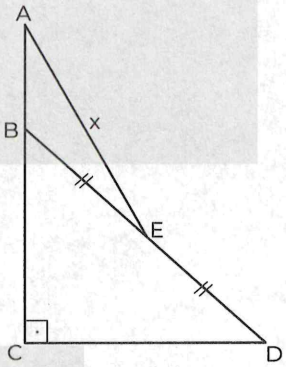
$|BC| = x$

$\Rightarrow x = ?$

A) $5\sqrt{3}$ B) $5\sqrt{3}-2$ C) $5\sqrt{3}-5$

D) $5\sqrt{3}+2$ E) $5\sqrt{3}+5$

36.



BCD **dik üçgen** (right triangle)

A, B, C **doğrusal** (linear)

$|BE| = |ED|$, $|BC| = |CD|$, $|AC| = |BD| = 4$ br

$|AE| = x \Rightarrow x = ?$

A) $2\sqrt{5}+4$ B) $\sqrt{20-8\sqrt{2}}$ C) $\sqrt{2\sqrt{5}-2}$

D) $\sqrt{20-4\sqrt{2}}$ E) $\sqrt{15+2\sqrt{3}}$

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IRANINOVIN

RIGHT TRIANGLE

DİK ÜÇGEN

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	B	E	B	C	C	B	B	C	C	E

13	14	15	16	17	18	19	20	21	22	23	24
D	D	B	C	D	D	E	D	D	D	D	E

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
A	C	A	B	D	E	C	E	A	C	D	C

13	14	15	16	17	18	19	20	21	22	23	24
D	C	A	D	C	B	C	B	C	B	B	D

25	26	27	28	29	30	31	32	33	34	35	36
E	D	C	A	E	C	C	C	C	D	C	E

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	E	C	C	E	B	C	C	B	E	E	D

13	14	15	16	17	18	19	20	21	22	23	24
A	C	D	E	B	D	E	B	D	C	D	B

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
C	C	D	B	E	D	C	B	B	D	C	B

13	14	15	16	17	18	19	20	21	22	23	24
C	E	C	E	B	E	A	A	E	B	D	A

25	26	27	28	29	30	31	32	33	34	35	36
C	B	B	C	D	D	C	C	E	C	C	B

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NOTES:

NOTES:

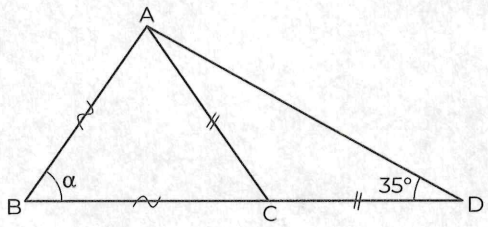
ISOSCELES TRIANGLE & EQUILATERAL TRIANGLE

İKİZKENAR ÜÇGEN & EŞKENAR ÜÇGEN

CHAPTER | BÖLÜM 04

IRANINOVIN

1.



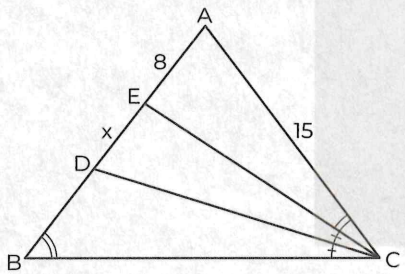
ABD **üçgen** (triangle)

$|AC| = |CD|$, $|AB| = |BC|$

$m(\widehat{BDA}) = 35°$, $m(\widehat{ABD}) = \alpha \Rightarrow \alpha = ?$

A) 30 B) 35 C) 40 D) 45 E) 50

2.



ABC **üçgen** (triangle)

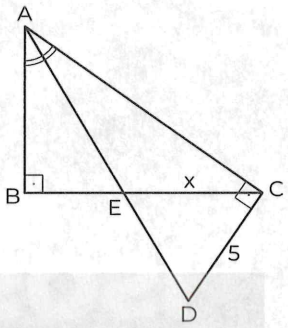
$m(\widehat{ACE}) = m(\widehat{ABC})$, $m(\widehat{ECD}) = m(\widehat{DCB})$

$|AE| = 8$ br , $|AC| = 15$ br

$|DE| = x \Rightarrow x = ?$

A) 3 B) 5 C) 6 D) 7 E) 8

3.



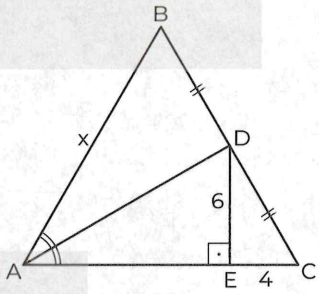
ABC **dik üçgen** (right triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $[AC] \perp [CD]$

$|DC| = 5$ br , $|EC| = x \Rightarrow x = ?$

A) 3 B) $3\sqrt{3}$ C) 4 D) $4\sqrt{12}$ E) 5

4.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $[DE] \perp [AC]$, $|BD| = |DC|$

$|EC| = 4$ br , $|DE| = 6$ br , $|AB| = x \Rightarrow x = ?$

A) 6 B) 10 C) 11 D) 12 E) 13

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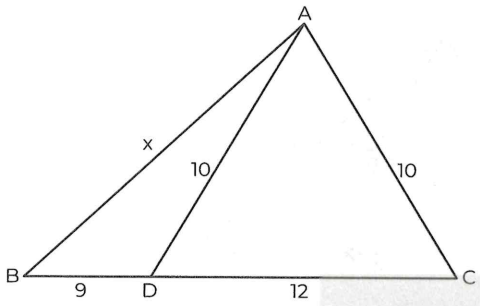
5.



ABC **üçgen** (triangle)

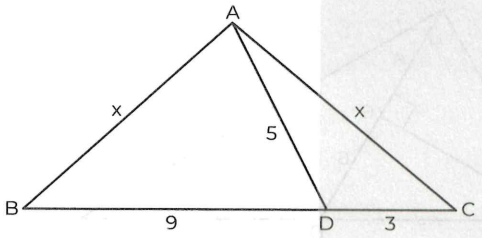
$|BD| = 9$ br , $|AD| = |AC| = 10$ br

$|DC| = 12$ br , $|AB| = x$

$\Rightarrow x = ?$

A) 13 B) 15 C) 17 D) 20 E) 25

6.



ABC **üçgen** (triangle)

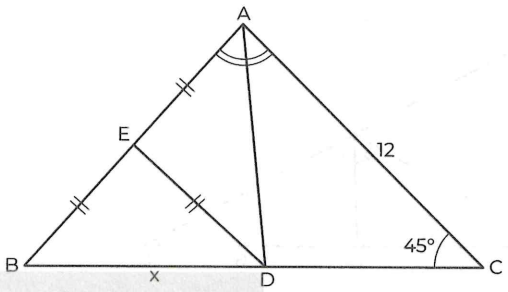
$|DC| = 3$ br , $|AD| = 5$ br , $|BD| = 9$ br

$|AB| = |AC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{10}$ B) $3\sqrt{5}$ C) $4\sqrt{3}$ D) $2\sqrt{13}$ E) 8

7.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ACB}) = 45°$

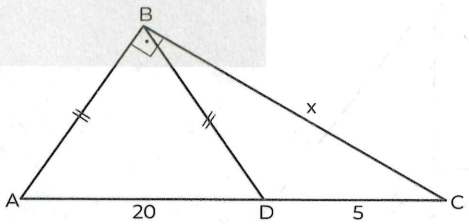
$|BE| = |ED| = |EA|$

$|AC| = 12$ br , $|BD| = x$

$\Rightarrow x = ?$

A) $4\sqrt{3}$ B) 6 C) $6\sqrt{2}$ D) $8\sqrt{3}$ E) 8

8.



ABC **dik üçgen** (right triangle)

$|AB| = |BD|$, $|DC| = 5$ br , $|AD| = 20$ br

$|BC| = x$

$\Rightarrow x = ?$

A) $3\sqrt{5}$ B) $5\sqrt{3}$ C) $\sqrt{15}$ D) $3\sqrt{15}$ E) $5\sqrt{15}$

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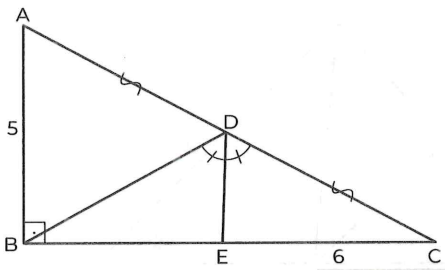
9.



ABC **dik üçgen** (right triangle)

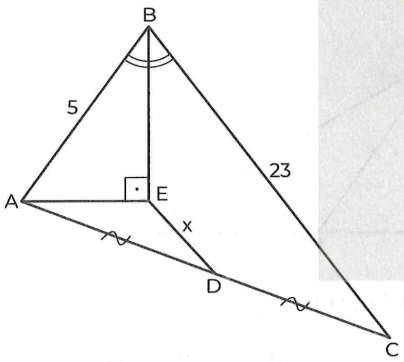
$m(\widehat{BDE}) = m(\widehat{EDC})$, $|AD| = |DC|$

$|AB| = 5$ br , $|EC| = 6$ br

$\Rightarrow |BD| = ?$

A) 5 B) 6 C) $\frac{13}{2}$ D) 7 E) $\frac{15}{2}$

10.



ABC **üçgen** (triangle)

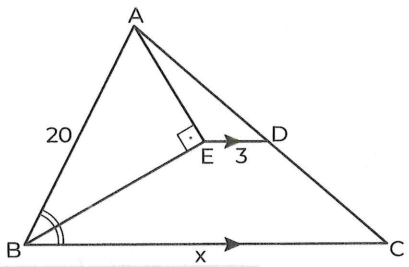
$m(\widehat{ABE}) = m(\widehat{EBC})$, $[BE] \perp [AE]$, $|AD| = |DC|$

$|AB| = 5$ br , $|BC| = 23$ br , $|ED| = x$

$\Rightarrow x = ?$

A) 5 B) 6 C) 7 D) 8 E) 9

11.



ABC **üçgen** (triangle)

$m(\widehat{ABE}) = m(\widehat{EBC})$

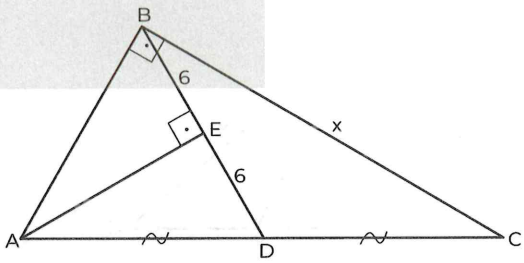
$[AE] \perp [EB]$, $[ED] // [BC]$, $|ED| = 3$ br

$|AB| = 20$ br , $|BC| = x$

$\Rightarrow x = ?$

A) 12 B) 13 C) 20 D) 24 E) 26

12.



ABC **dik üçgen** (right triangle)

$[AE] \perp [BD]$, $|BE| = |ED| = 6$ br , $|AD| = |DC|$

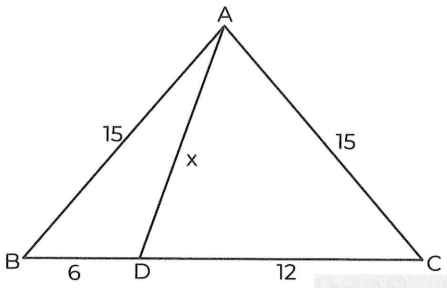
$|BC| = x$

$\Rightarrow x = ?$

A) 6 B) $6\sqrt{3}$ C) 12 D) $12\sqrt{3}$ E) 24

PUZA ACADEMY

1.



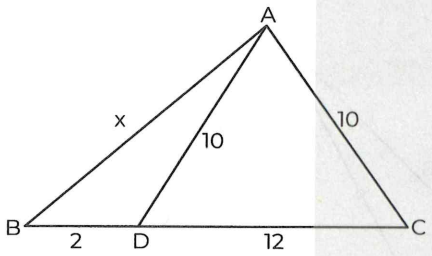
$|AB| = |AC| = 15$ br , $|DC| = 12$ br

$|BD| = 6$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $\sqrt{118}$ B) $\sqrt{123}$ C) $\sqrt{153}$ D) $\sqrt{161}$ E) $6\sqrt{5}$

2.



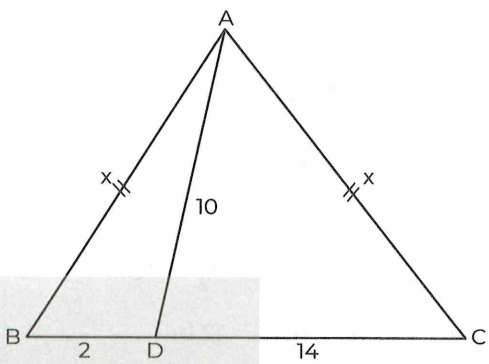
$|AD| = |AC| = 10$ br , $|DC| = 12$ br

$|BD| = 2$ br , $|AB| = x$

$\Rightarrow x = ?$

A) $4\sqrt{2}$ B) 6 C) 8 D) $8\sqrt{2}$ E) 16

3.



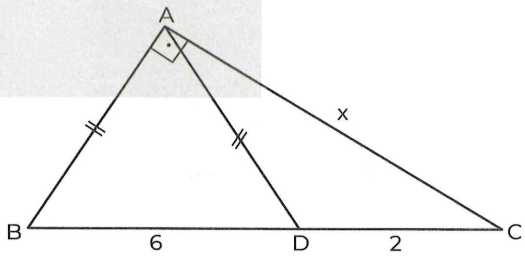
$|AB| = |AC|$, $|AD| = 10$ br , $|DC| = 14$ br

$|BD| = 2$ br , $|AC| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) 5 C) 6 D) $6\sqrt{2}$ E) $8\sqrt{2}$

4.



$[BA] \perp [AC]$, $|AB| = |AD|$, $|BD| = 6$ br

$|DC| = 2$ br , $|AC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{5}$ B) $2\sqrt{10}$ C) $5\sqrt{2}$ D) 8 E) 10

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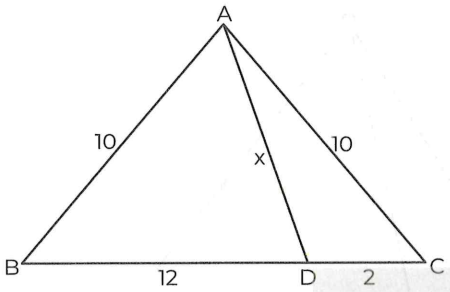
IRANINOVIN

5.



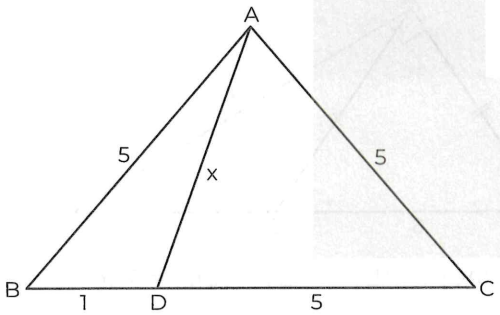
$|AB| = |AC| = 10$ br , $|BD| = 12$ br

$|DC| = 2$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $2\sqrt{19}$ B) 6 C) $2\sqrt{5}$ D) $\sqrt{17}$ E) 4

6.



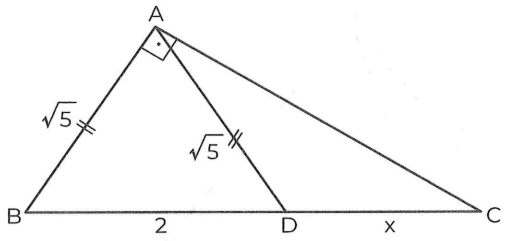
$|AB| = |AC| = |DC| = 5$ br , $|BD| = 1$ br

$|AD| = x$

$\Rightarrow x = ?$

A) $\sqrt{5}$ B) $\sqrt{7}$ C) 4 D) $2\sqrt{5}$ E) $2\sqrt{7}$

7.



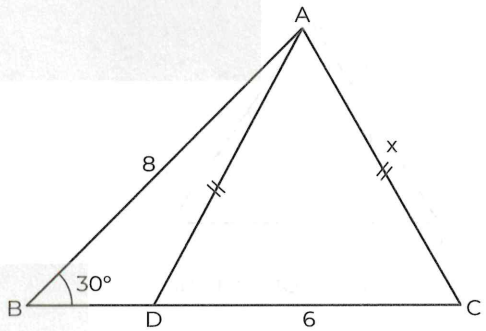
$[BA] \perp [CA]$, $|AB| = |AD| = \sqrt{5}$ br

$|BD| = 2$ br , $|DC| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

8.



$|AD| = |AC|$, $|AB| = 8$ br , $|DC| = 6$ br

$m(\widehat{ABC}) = 30°$, $|AC| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 5 D) 6 E) 8

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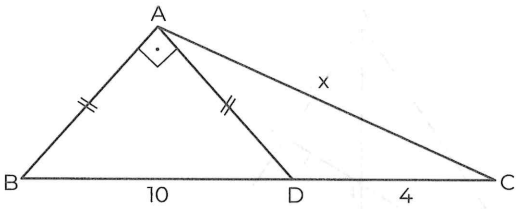
TRYÖSPREP

9.



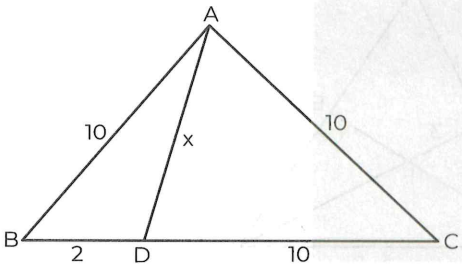
$[BA] \perp [AD]$, $|AB| = |AD|$, $|BD| = 10$ br

$|DC| = 4$ br , $|AC| = x$

$\Rightarrow x = ?$

A) 20 B) $3\sqrt{14}$ C) $\sqrt{70}$ D) $\sqrt{106}$ E) $2\sqrt{7}$

10.



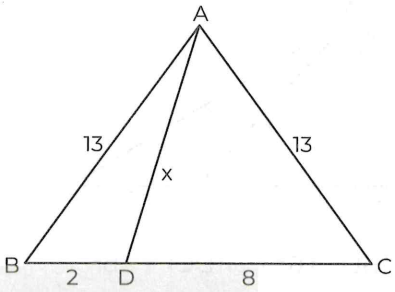
$|AB| = |AC| = |CD| = 10$ br , $|BD| = 2$ br

$|AD| = x$

$\Rightarrow x = ?$

A) 4 B) $2\sqrt{5}$ C) 6 D) $4\sqrt{5}$ E) 10

11.



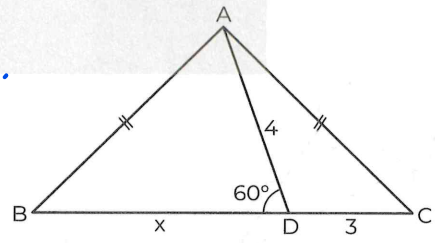
$|AB| = |AC| = 13$ br , $|DC| = 8$ br

$|BD| = 2$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $4\sqrt{10}$ B) $\sqrt{153}$ C) $\sqrt{137}$ D) 10 E) $\sqrt{97}$

12.



$|AB| = |AC|$, $m(\widehat{ADB}) = 60°$, $|AD| = 4$ br

$|DC| = 3$ br , $|BD| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 5 D) 7 E) 9

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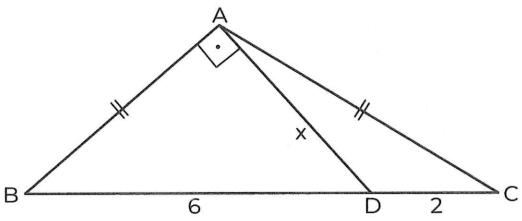
IRANINOVIN

13.



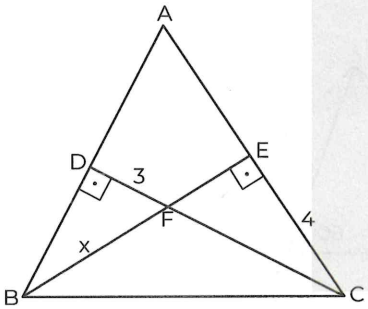
$|AB| = |AC|$, $|BD| = 6$ br , $|DC| = 2$ br

$|AD| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) $\sqrt{3}$ C) $2\sqrt{3}$ D) 4 E) $3\sqrt{2}$

14.



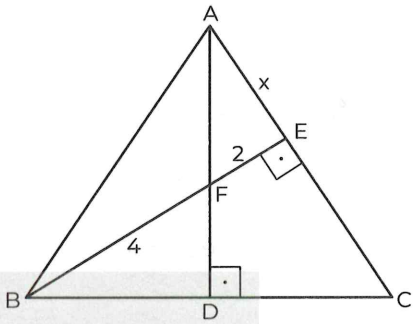
$|AB| = |AC|$, $[CD] \perp [AB]$, $[BE] \perp [AC]$

$|DF| = 3$ br , $|EC| = 4$ br , $|BF| = x$

$\Rightarrow x = ?$

A) 2 B) $2\sqrt{3}$ C) 4 D) $4\sqrt{2}$ E) 5

15.



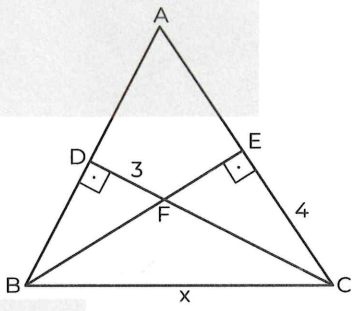
$|AC| = |BC|$, $[BE] \perp [AC]$, $[AD] \perp [BC]$

$|BF| = 4$ br , $|FE| = 2$ br , $|AE| = x$

$\Rightarrow x = ?$

A) 2 B) $2\sqrt{3}$ C) 4 D) $4\sqrt{3}$ E) 6

16.



$|AB| = |AC|$, $[DC] \perp [AB]$, $[BE] \perp [AC]$

$|DF| = 3$ br , $|EC| = 4$ br , $|BC| = x$

$\Rightarrow x = ?$

A) 4 B) $4\sqrt{2}$ C) $4\sqrt{5}$ D) 8 E) $8\sqrt{5}$

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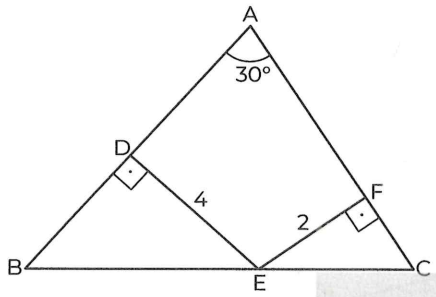
17.



$|AB| = |AC|$, $[DE] \perp [AB]$, $[EF] \perp [AC]$

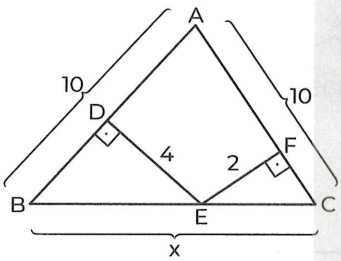
$|DE| = 4$ br , $|EF| = 2$ br , $m(\widehat{BAC}) = 30°$

$|AB| = x$

$\Rightarrow x = ?$

A) 3 B) $3\sqrt{2}$ C) 6 D) $6\sqrt{3}$ E) 12

18.



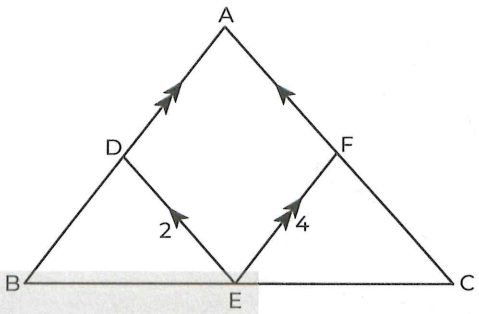
$|AB| = |AC| = 10$ br , $[DE] \perp [AB]$, $[EF] \perp [AC]$

$|DE| = 4$ br , $|EF| = 2$ br , $|BC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{10}$ B) $4\sqrt{5}$ C) $6\sqrt{2}$ D) 8 E) 10

19.



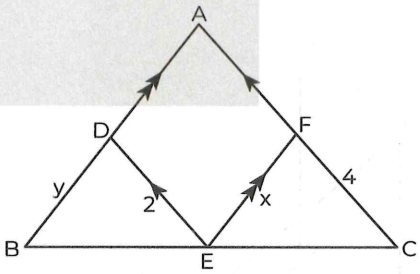
$[AB] // [EF]$, $[AC] // [DE]$, $|AB| = |AC|$

$|DE| = 2$ br , $|EF| = 4$ br , $|AB| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 12 E) 18

20.



$|AB| = |AC|$, $[AB] // [EF]$, $[AC] // [DE]$

$|DE| = 2$ br , $|FC| = 4$ br , $|FE| = x$

$|BD| = y$

$\Rightarrow 2x + y = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

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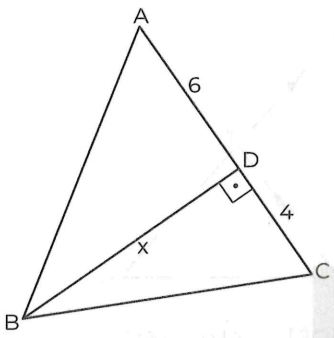
21.



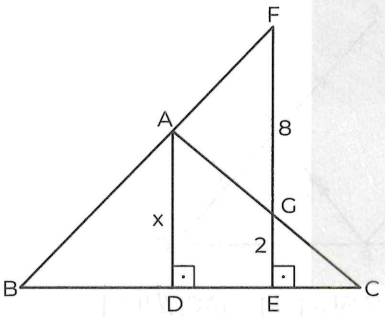
$[BD] \perp [AC]$, $|AB| = |AC|$, $|AD| = 6$ br

$|DC| = 4$ br , $|BD| = x$

$\Rightarrow x = ?$

A) 4 B) $4\sqrt{2}$ C) 6 D) 8 E) $8\sqrt{2}$

22.



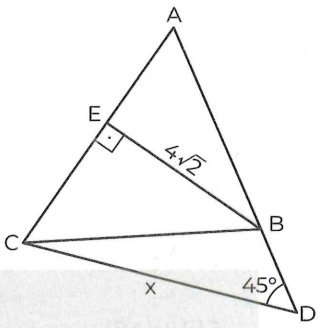
$|AB| = |AC|$, $[AD] \perp [BC]$, $[FE] \perp [BC]$

$|FG| = 8$ br , $|GE| = 2$ br , $|AD| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

23.



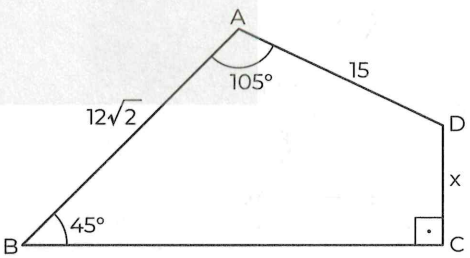
$|AB| = |AC|$, $[BE] \perp [AC]$, $m(\widehat{ADC}) = 45°$

$|EB| = 4\sqrt{2}$ br , $|CD| = x$

$\Rightarrow x = ?$

A) $2\sqrt{2}$ B) 4 C) $4\sqrt{2}$ D) 8 E) $8\sqrt{2}$

24.



$[DC] \perp [BC]$, $m(\widehat{BAD}) = 105°$, $m(\widehat{ABC}) = 45°$

$|AB| = 12\sqrt{2}$ br , $|AD| = 15$ br , $|DC| = x$

$\Rightarrow x = ?$

A) 1 B) 3 C) $\frac{9}{2}$ D) $\frac{15}{2}$ E) $\frac{17}{2}$

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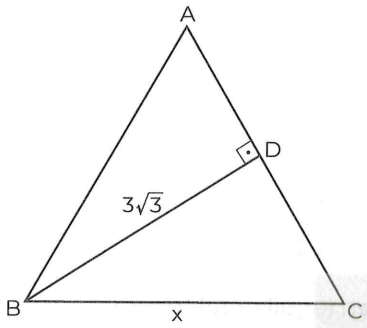
1.



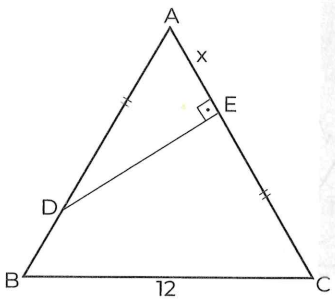
ABC **eşkenar üçgen** (equilateral triangle)

$[BD] \perp [AC]$, $|BD| = 3\sqrt{3}$ br , $|BC| = x$

$\Rightarrow x = ?$

A) 3 B) 6 C) $6\sqrt{3}$ D) 9 E) 12

2.



ABC **eşkenar üçgen** (equilateral triangle)

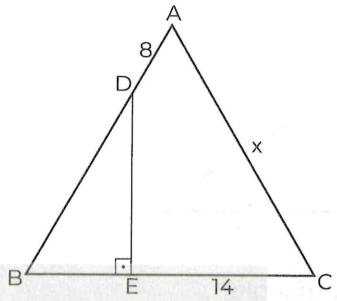
$[DE] \perp [AC]$, $|AD| = |EC|$, $|BC| = 12$ br ,

$|AE| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

3.



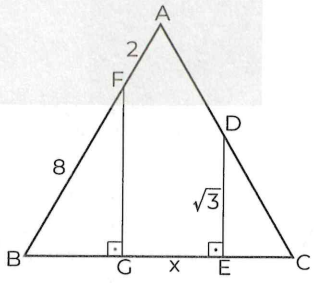
ABC **eşkenar üçgen** (equilateral triangle)

$[DE] \perp [BC]$, $|AD| = 8$ br , $|EC| = 14$ br , $|AC| = x$

$\Rightarrow x = ?$

A) 17 B) 18 C) 19 D) 20 E) 21

4.



ABC **eşkenar üçgen** (equilateral triangle)

$[DE] \perp [BC]$, $[FG] \perp [BC]$, $|AF| = 2$ br

$|FB| = 8$ br , $|DE| = \sqrt{3}$ br , $|GE| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

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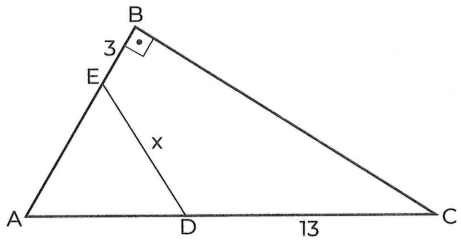
5.



ABC **dik üçgen** (right triangle)

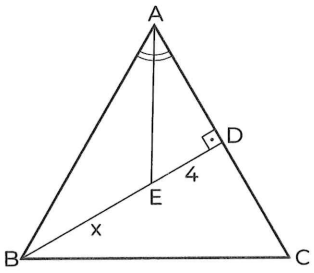
AED **eşkenar üçgen** (equilateral triangle)

$|BE| = 3$ br , $|DC| = 13$ br , $|ED| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

7.



ABC **eşkenar üçgen** (equilateral triangle)

$[BD] \perp [AC]$, $m(\widehat{BAE}) = m(\widehat{EAC})$, $|ED| = 4$ br

$|BE| = x$

$\Rightarrow x = ?$

A) 4 B) 6 C) 8 D) 10 E) 12

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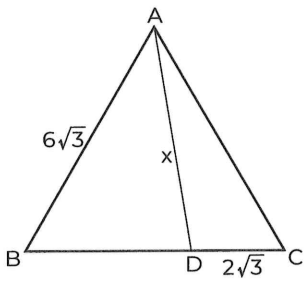
6.



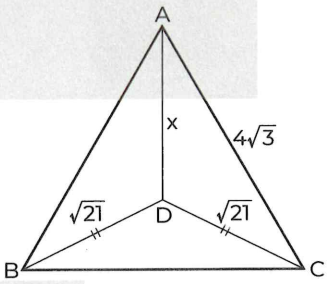
ABC **eşkenar üçgen** (equilateral triangle)

$|DC| = 2\sqrt{3}$ br , $|AB| = 6\sqrt{3}$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $4\sqrt{3}$ B) $2\sqrt{13}$ C) 8 D) $6\sqrt{2}$ E) $2\sqrt{21}$

8.



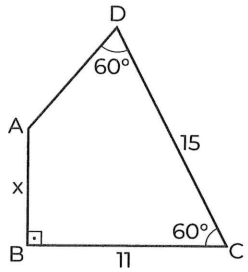
ABC **eşkenar üçgen** (equilateral triangle)

$|BD| = |DC| = \sqrt{21}$ br , $|AC| = 4\sqrt{3}$ br , $|AD| = x$

$\Rightarrow x = ?$

A) 3 B) $2\sqrt{3}$ C) $3\sqrt{2}$ D) $2\sqrt{5}$ E) 5

9.



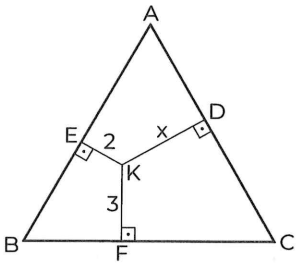
$m(\widehat{ADC}) = m(\widehat{DCB}) = 60°$

$[AB] \perp [BC]$, $|BC| = 11$ br , $|DC| = 15$ br , $|AB| = x$

$\Rightarrow x = ?$

A) 2 B) $2\sqrt{3}$ C) 4 D) $4\sqrt{3}$ E) 8

10.



ABC **eşkenar üçgen** (equilateral triangle)

$[KE] \perp [AB]$, $[KD] \perp [AC]$, $[KF] \perp [BC]$

$|EK| = 2$ br $|KF| = 3$ br ,

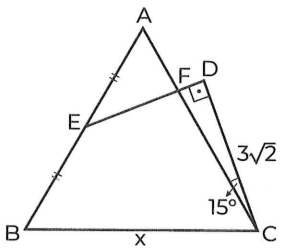
Çevre(circumference)(ABC) = $18\sqrt{3}$ br

$|KD| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

11.



ABC **eşkenar üçgen** (equilateral triangle)

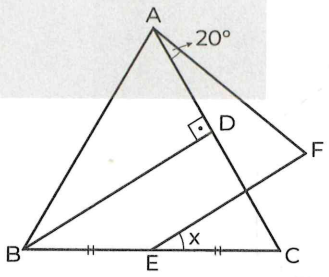
$[CD] \perp [DE]$, $|AE| = |EB|$, $|DC| = 3\sqrt{2}$ br

$m(\widehat{ACD}) = 15°$, $|BC| = x$

$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) $3\sqrt{3}$ C) $4\sqrt{3}$ D) 4 E) 8

12.



ABC **eşkenar üçgen** (equilateral triangle)

$[BD] \perp [AC]$, $|BE| = |EC|$, $|BD| = |EF|$

$m(\widehat{CAF}) = 20°$, $m(\widehat{FEC}) = x$

$\Rightarrow x = ?$

A) 10 B) 16 C) 18 D) 20 E) 24

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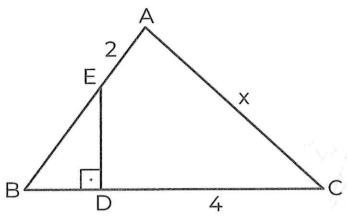
1.



ABC **eşkenar üçgen** (equilateral triangle)

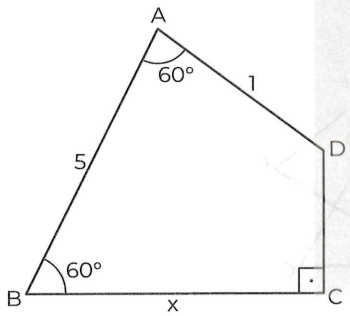
[ED] ⊥ [BC] , |AE| = 2 br , |DC] = 4 br

|AC| = x

⇒ x = ?

A) 2 B) 4 C) 5 D) 6 E) 8

2.



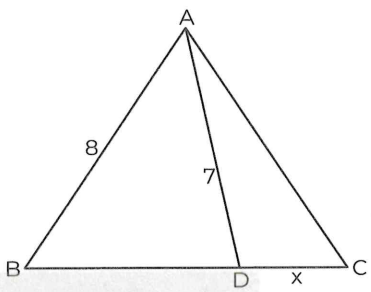
[DC] ⊥ [BC] , $m(\widehat{ABC}) = 60°$, $m(\widehat{BAD}) = 60°$

|AB| = 5 br , |AD| = 1 br , |BC| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

3.



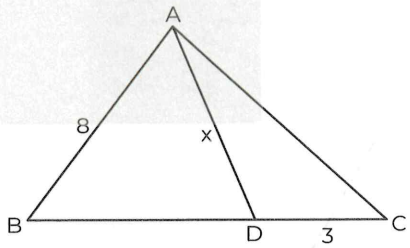
ABC **eşkenar üçgen** (equilateral triangle)

|AB| = 8 br , |AD| = 7 br , |DC| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

4.



ABC **eşkenar üçgen** (equilateral triangle)

|AB| = 8 br , |DC| = 3 br , |AD| = x

⇒ x = ?

A) 6 B) $4\sqrt{3}$ C) $3\sqrt{5}$ D) $3\sqrt{10}$ E) 7

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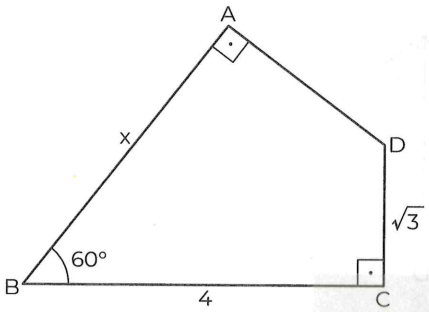
5.



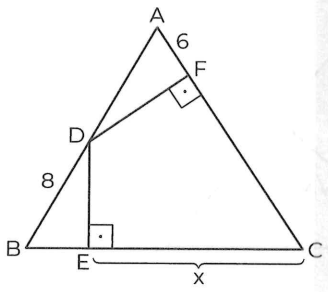
$[BA] \perp [DA]$, $[DC] \perp [BC]$, $m(\widehat{ABC}) = 60°$

$|BC| = 4$ br , $|DC| = \sqrt{3}$ br , $|AB| = x$

$\Rightarrow x = ?$

A) $\frac{1}{2}$ B) $\frac{7}{2}$ C) 7 D) 10 E) 14

6.



ABC **eşkenar üçgen** (equilateral triangle)

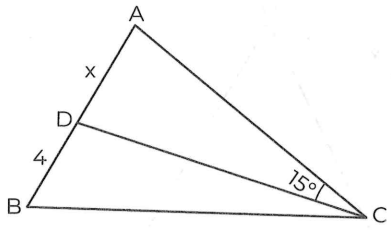
$[DF] \perp [AC]$, $[DE] \perp [BC]$, $|AF| = 6$ br

$|DB| = 8$ br , $|EC| = x$

$\Rightarrow x = ?$

A) 6 B) 8 C) 10 D) 12 E) 16

7.



ABC **eşkenar üçgen** (equilateral triangle)

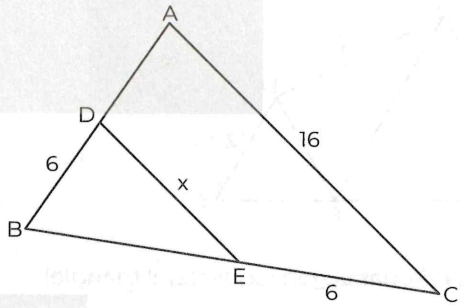
$m(\widehat{ACD}) = 15°$, $|DB| = 4$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $2(\sqrt{3}-1)$ B) $3(\sqrt{3}-1)$ C) $3(\sqrt{3}-2)$

D) $\sqrt{3}+1$ E) $2\sqrt{3}+1$

8.



ABC **eşkenar üçgen** (equilateral triangle)

$|AC| = 16$ br , $|EC| = 6$ br , $|BD| = 6$ br

$|DE| = x$

$\Rightarrow x = ?$

A) $3\sqrt{3}$ B) 4 C) $4\sqrt{3}$ D) $2\sqrt{19}$ E) $6\sqrt{3}$

PUZA ACADEMY

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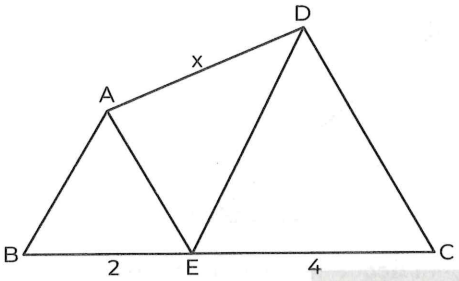
9.



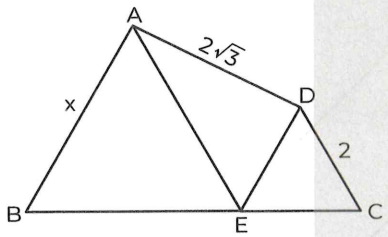
ABE, DCE **eşkenar üçgen** (equilateral triangle)

$|EC| = 4$ br , $|BE| = 2$ br , $|AD| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) $2\sqrt{3}$ D) 4 E) $4\sqrt{3}$

10.



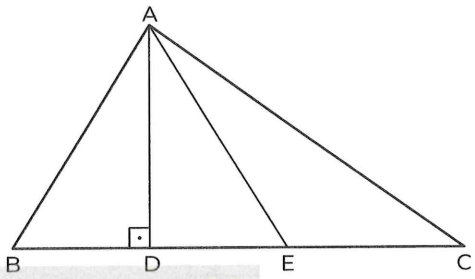
ABE, DEC **eşkenar üçgen** (equilateral triangle)

$|DC| = 2$ br , $|AD| = 2\sqrt{3}$, $|AB| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) $2\sqrt{2}$ C) $2\sqrt{3}$ D) 4 E) $4\sqrt{3}$

11.



ABE **eşkenar üçgen** (equilateral triangle)

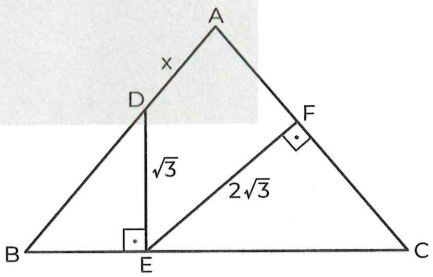
$[AD] \perp [BC]$, $|AE| = |EC|$, $|AC| = 6\sqrt{3}$ br

$|AD| = x$

$\Rightarrow x = ?$

A) 2 B) $2\sqrt{3}$ C) 3 D) $3\sqrt{3}$ E) $4\sqrt{3}$

12.



ABC **eşkenar üçgen** (equilateral triangle)

$[DE] \perp [BC]$, $[EF] \perp [AC]$, $|DE| = \sqrt{3}$ br

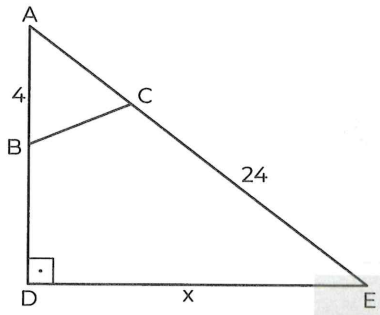
$|EF| = 2\sqrt{3}$ br , $|AD| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

PUZA ACADEMY

13.



ABC **eşkenar üçgen** (equilateral triangle)

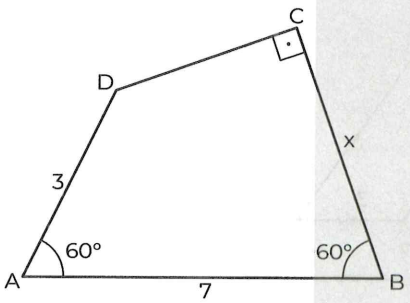
[AD] ⊥ [ED] , |AB| = 4 br , |CE| = 24 br

|DE| = x

⇒ x = ?

A) 12 B) $9\sqrt{3}$ C) $14\sqrt{3}$ D) 18 E) $18\sqrt{3}$

14.



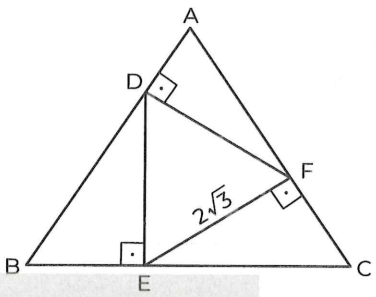
[DC] ⊥ [BC] , $m(\widehat{DAB}) = 60$, $m(\widehat{ABC}) = 60°$

|AB| = 7 br , |AD| = 3 br , |BC| = x

⇒ x = ?

A) 5 B) 6 C) 8 D) 10 E) 12

15.



ABC **eşkenar üçgen** (equilateral triangle)

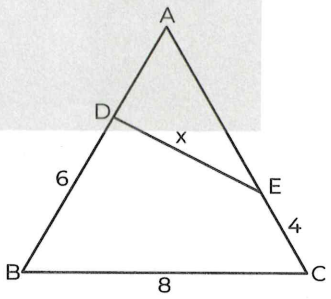
[FD] ⊥ [AB] , [EF] ⊥ [AC] , [DE] ⊥ [BC]

$|EF| = 2\sqrt{3}$ br

⇒ **Çevre** (circumference) (ABC) = ?

A) $6\sqrt{3}$ B) 12 C) 18 D) 20 E) 24

16.



ABC **eşkenar üçgen** (equilateral triangle)

|BD| = 6 br , |EC| = 4 br , |BC| = 8 br

|DE| = x

⇒ x = ?

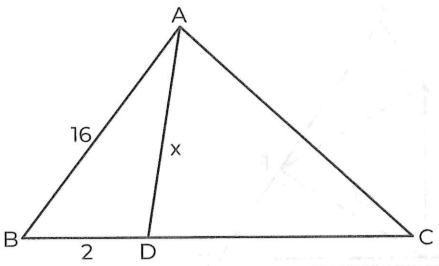
A) $2\sqrt{3}$ B) 4 C) 6 D) 8 E) $8\sqrt{3}$

PUZA ACADEMY

IRANINOVIN

@galata1010

17.



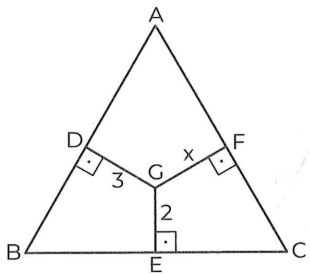
ABC **eşkenar üçgen** (equilateral triangle)

$|AB| = 16$ br , $|BD| = 2$ br , $|AD| = x$

$\Rightarrow x = ?$

A) $6\sqrt{2}$ B) $2\sqrt{7}$ C) $4\sqrt{5}$ D) $2\sqrt{57}$ E) $4\sqrt{53}$

18.



ABC **eşkenar üçgen** (equilateral triangle)

$[GD] \perp [AB]$, $[GF] \perp [AC]$, $[GE] \perp [BC]$

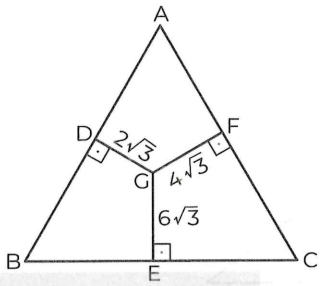
$|GD| = 3$ br , $|GE| = 2$ br , $|AC| = 6\sqrt{3}$ br

$|GF| = x$

$\Rightarrow x = ?$

A) 5 B) 4 C) 3 D) 2 E) 1

19.



ABC **eşkenar üçgen** (equilateral triangle)

$[GD] \perp [AB]$, $[GF] \perp [AC]$, $[GE] \perp [BC]$

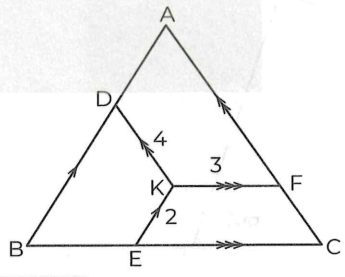
$|GD| = 2\sqrt{3}$ br , $|GF| = 4\sqrt{3}$ br

$|GE| = 6\sqrt{3}$ br

$\Rightarrow |AC| = ?$

A) 6 B) $6\sqrt{3}$ C) 12 D) $12\sqrt{3}$ E) 24

20.



ABC **eşkenar üçgen** (equilateral triangle)

$[KE] // [AB]$, $[KD] // [AC]$, $[KF] // [BC]$

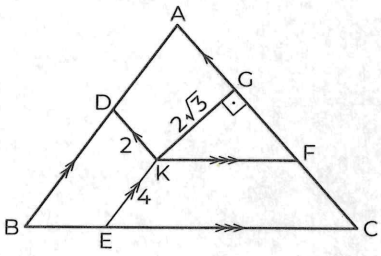
$|KE| = 2$ br , $|KD| = 4$ br , $|KF| = 3$ br

$\Rightarrow$ **Çevre** (circumference) $(\widehat{ABC}) = ?$

A) 9 B) 12 C) 15 D) 18 E) 27

PUZA ACADEMY

21.



ABC **eşkenar üçgen** (equilateral triangle)

[KG] ⊥ [AC] , [KD] // [AC] , [KE] // [AB]

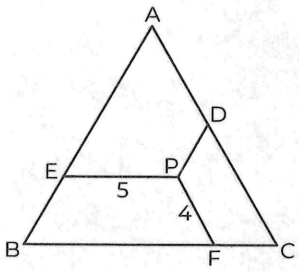
[KF] // [BC] , |KD| = 2 br , |KG| = $2\sqrt{3}$ br

|KE| = 4 br

⇒ **Çevre** (circumference) ($\widehat{ABC}$) = ?

A) 12 B) 16 C) 20 D) 24 E) 30

22.



ABC **eşkenar üçgen** (equilateral triangle)

[PE] // [BC] , [PD] // [AB] , [PF] // [AC]

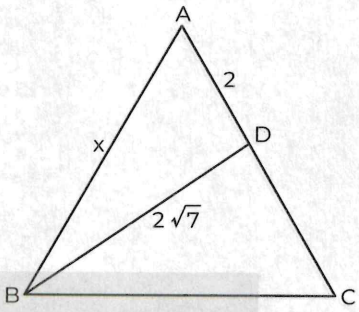
|EP| = 5 br , |PF| = 4 br

Çevre (circumference) ($\widehat{ABC}$) = 33 br

⇒ |PD| = ?

A) 1 B) 2 C) 3 D) 4 E) 5

23.



ABC **eşkenar üçgen** (equilateral triangle)

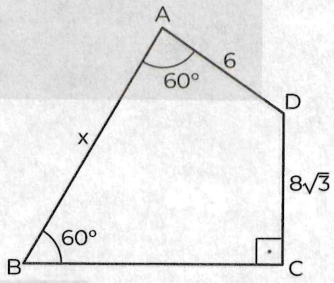
|AD| = 2 br , |BD| = $2\sqrt{7}$ br , |AB| = x

⇒ x = ?

A) 12 B) 8 C) 6 D) 4 E) 2

PUZA ACADEMY

24.



$m(\widehat{BAD}) = m(\widehat{ABC}) = 60°$, [DC] ⊥ [BC]

|DC| = $8\sqrt{3}$ br , |AD| = 6 br , |AB| = x

⇒ x = ?

A) 6 B) 8 C) 14 D) 22 E) 28

IRANINOVIN

ISOSCELES TRIANGLE & EQUILATERAL TRIANGLE

İKİZKENAR ÜÇGEN & EŞKENAR ÜÇGEN

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
C	D	E	E	C	D	C	E	C	E	E	D

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
C	D	E	B	A	D	C	C	D	D	B	D

13	14	15	16	17	18	19	20	21	22	23	24
C	E	B	C	E	A	C	B	D	D	D	C

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
B	C	D	C	D	E	C	A	D	D	C	A

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
D	B	C	E	B	E	A	D	C	D	D	B

13	14	15	16	17	18	19	20	21	22	23	24
C	A	C	A	D	B	E	E	E	B	C	D

NOTES:

NOTES:

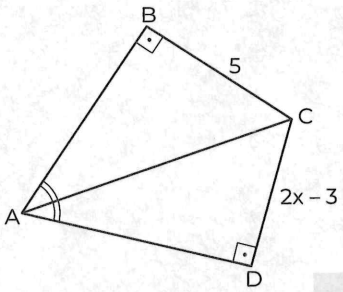
BISECTOR

AÇIORTAY

CHAPTER | BÖLÜM 05

IRANINOVIN

1.



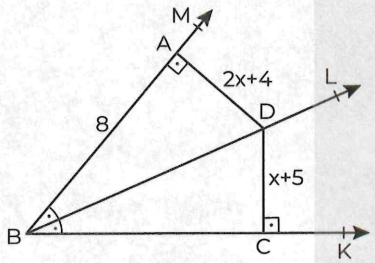
$m(\widehat{BAC}) = m(\widehat{CAD})$, $[AB] \perp [BC]$, $[CD] \perp [AD]$,

$|BC| = 5$ br, $|CD| = (2x - 3)$ br

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

2.



$m(\widehat{MBL}) = m(\widehat{LBK})$

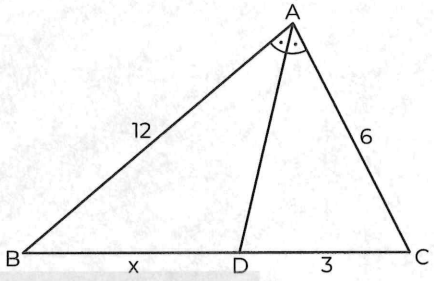
$[DA] \perp [BM]$, $[DC] \perp [BK]$

$|AD| = (2x + 4)$ br, $|DC| = (x + 5)$ br, $|AB| = 8$ br

$\Rightarrow |BD| = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

3.



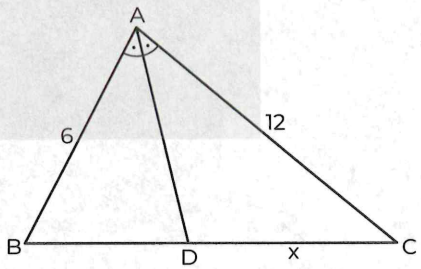
$m(\widehat{BAD}) = m(\widehat{DAC})$

$|AB| = 12$ br, $|AC| = 6$ br, $|DC| = 3$ br, $|BD| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 12

4.



Çevre (Circumference)$(\widehat{ABC}) = 27$ br

$m(\widehat{BAD}) = m(\widehat{DAC})$, $|AC| = 12$ br, $|AB| = 6$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 6 D) 8 E) 9

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PUZA ACADEMY

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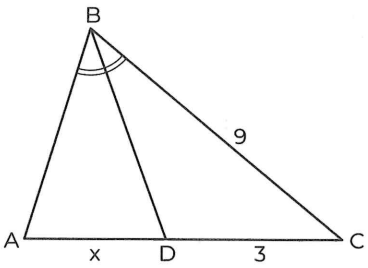
IRANINOVIN

5.



ABC **üçgen** (triangle)

Çevre (Circumference)$(\widehat{ABC}) = 28$ br

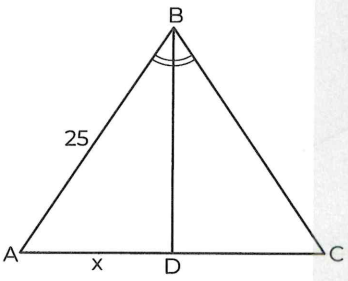
$m(\widehat{ABD}) = m(\widehat{DBC})$, $|DC| = 3$ br, $|BC| = 9$ br,

$|AD| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

6.



ABC **üçgen** (triangle)

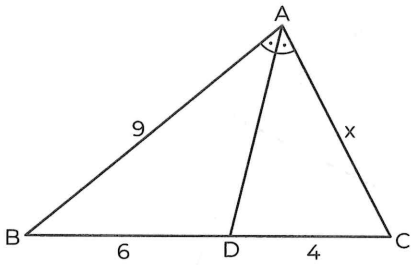
$m(\widehat{ABD}) = m(\widehat{DBC})$, $|AB| = 25$ br, $5|DC| = 4|BC|$

$|AD| = x$

$\Rightarrow x = ?$

A) 10 B) 16 C) 18 D) 20 E) 22

7.



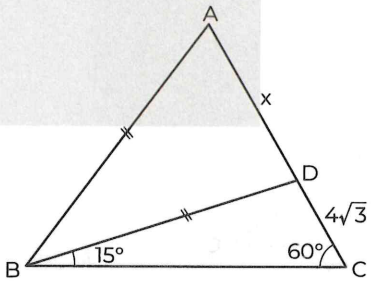
$m(\widehat{BAD}) = m(\widehat{DAC})$

$|AB| = 9$ br, $|BD| = 6$ br, $|DC| = 4$ br, $|AC| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

8.



ABC **üçgen** (triangle)

$m(\widehat{DBC}) = 15°$, $m(\widehat{ACB}) = 60°$, $|AB| = |BD|$,

$|DC| = 4\sqrt{3}$ br, $|AD| = x$

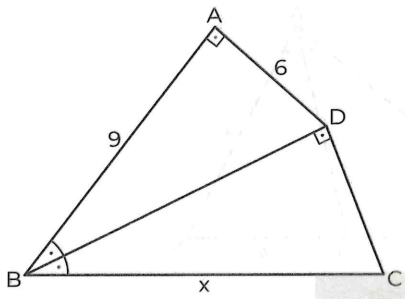
$\Rightarrow x = ?$

A) 8 B) 10 C) 12 D) 14 E) 18

PUZA ACADEMY

IRANINOVIN

9.



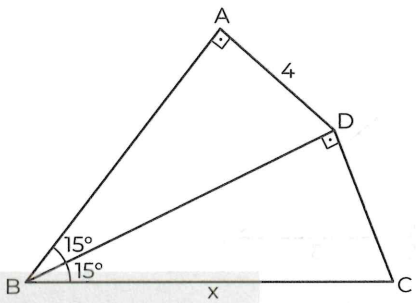
$m(\widehat{ABD}) = m(\widehat{DBC})$, $[DA] \perp [BA]$, $[CD] \perp [BD]$

$|AB| = 9$ br, $|AD| = 6$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 14 B) 13 C) 12 D) 10 E) 9

11.



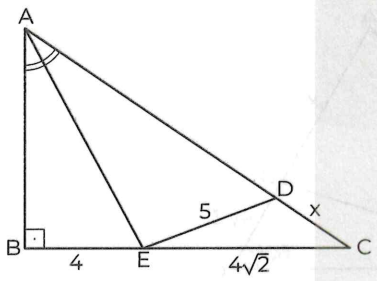
$m(\widehat{ABD}) = 15°$, $m(\widehat{DBC}) = 15°$, $[DA] \perp [AB]$

$[CD] \perp [BD]$, $|AD| = 4$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 20 B) 16 C) 12 D) 8 E) 2

10.



ABC **dik üçgen** (right triangle)

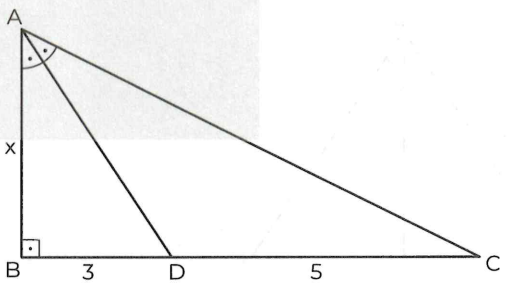
$m(\widehat{BAE}) = m(\widehat{EAC})$, $|BE| = 4$ br, $|DE| = 5$ br

$|EC| = 4\sqrt{2}$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

12.



$m(\widehat{BAD}) = m(\widehat{DAC})$, $[AB] \perp [BC]$

$|BD| = 3$ br, $|DC| = 5$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

PUZA ACADEMY

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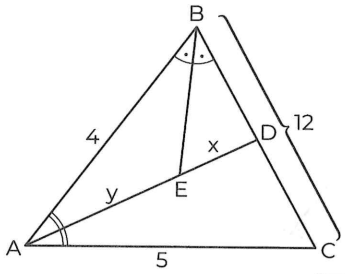
13.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ABE}) = m(\widehat{EBC})$

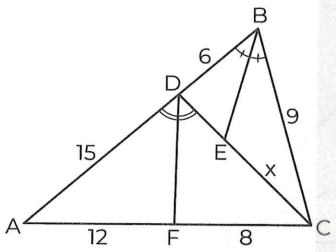
$|AB| = 4$ br, $|AC| = 5$ br, $|BC| = 12$ br

$|ED| = x$, $|AE| = y$

$\Rightarrow \frac{x}{y} = ?$

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{3}{2}$ D) $\frac{3}{4}$ E) $\frac{4}{3}$

14.



ABC **üçgen** (triangle)

$m(\widehat{DBE}) = m(\widehat{EBC})$, $m(\widehat{ADF}) = m(\widehat{FDC})$

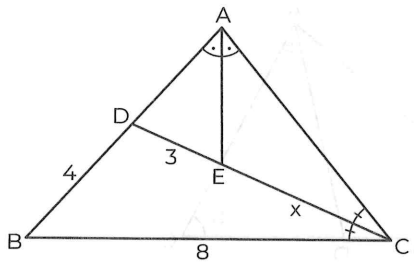
$|BD| = 6$ br, $|FC| = 8$ br, $|BC| = 9$ br

$|AF| = 12$ br, $|AD| = 15$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

15.



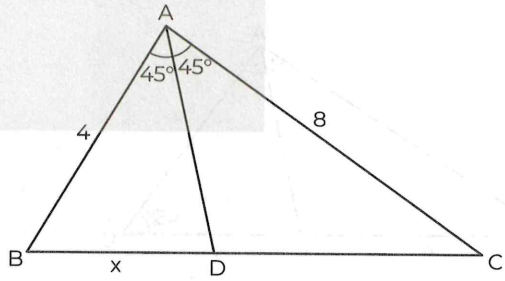
$m(\widehat{BAE}) = m(\widehat{EAC})$, $m(\widehat{ACD}) = m(\widehat{DCB})$

$|BC| = 8$ br, $|BD| = 4$ br, $|DE| = 3$ br, $|EC| = x$

$\Rightarrow x = ?$

A) $\frac{3}{2}$ B) 2 C) 4 D) 6 E) 8

16.



$m(\widehat{BAD}) = 45°$, $m(\widehat{DAC}) = 45°$

$|AC| = 8$ br, $|AB| = 4$ br, $|BD| = x$

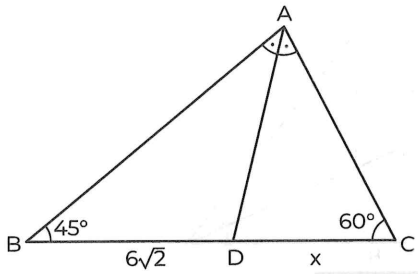
$\Rightarrow x = ?$

A) $2\sqrt{5}$ B) $\frac{4\sqrt{5}}{3}$ C) $\frac{10}{3}$ D) $\frac{10\sqrt{2}}{3}$ E) $\frac{20}{3}$

PUZA ACADEMY

IRANINOVIN

17.



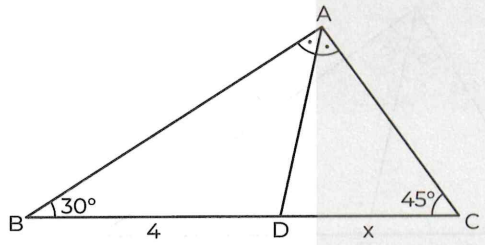
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ACB}) = 60°$

$m(\widehat{ABC}) = 45°$, $|BD| = 6\sqrt{2}$ br, $|DC| = x$

$\Rightarrow x = ?$

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) 3 D) $4\sqrt{3}$ E) 6

18.



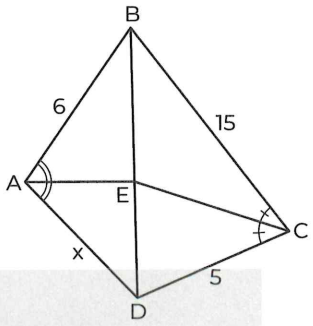
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ACB}) = 45°$

$m(\widehat{ABC}) = 30°$, $|BD| = 4$ br, $|DC| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) 2 C) $2\sqrt{2}$ D) 4 E) $4\sqrt{2}$

19.



$m(\widehat{BAE}) = m(\widehat{EAD})$, $m(\widehat{BCE}) = m(\widehat{ECD})$,

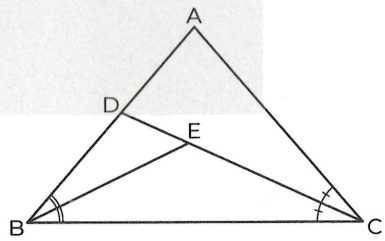
$|CD| = 5$ br, $|AB| = 6$ br, $|BC| = 15$ br

$|AD| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 5 E) 9

20.



ABC **üçgen** (triangle)

$m(\widehat{ABE}) = m(\widehat{EBC})$, $m(\widehat{BCD}) = m(\widehat{DCA})$

$2|EC| = 3|DE|$, $|AB| = 8$ br

$\Rightarrow$ **Çevre** (Circumference)$(\widehat{ABC}) = ?$

A) 12 B) 16 C) 18 D) 20 E) 22

PUZA ACADEMY

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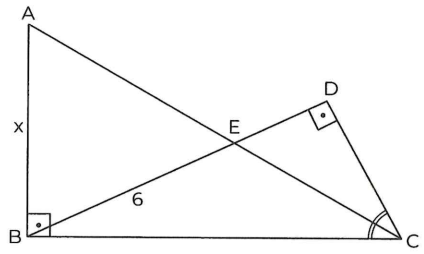
21.



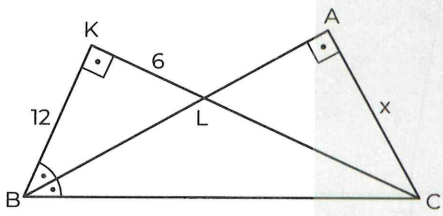
ABC, BDC **dik üçgen** (right triangle)

$m(\widehat{DCA}) = m(\widehat{ACB})$, $|BE| = 6$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

22.



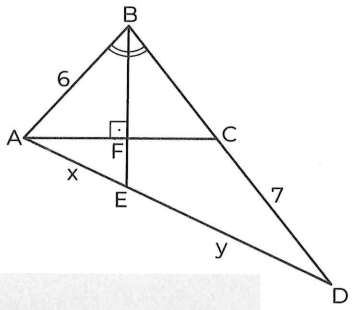
$m(\widehat{KBA}) = m(\widehat{ABC})$, $[BK] \perp [KC]$, $[BA] \perp [CA]$

$|BK| = 12$ br, $|KL| = 6$ br, $|AL| = 2\sqrt{5}$ br, $|AC| = x$

$\Rightarrow x = ?$

A) $\sqrt{5}$ B) $2\sqrt{5}$ C) 5 D) $4\sqrt{5}$ E) 10

23.



ABD **üçgen** (triangle)

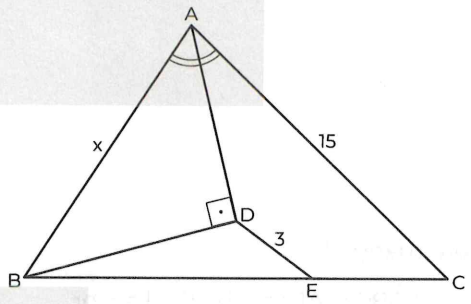
$m(\widehat{ABE}) = m(\widehat{EBD})$, $|AB| = 6$ br, $|CD| = 7$ br

$|AE| = x$, $|ED| = y$

$\Rightarrow \frac{x}{y} = ?$

A) $\frac{1}{7}$ B) $\frac{1}{13}$ C) $\frac{6}{7}$ D) $\frac{6}{13}$ E) $\frac{7}{13}$

24.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $[BD] \perp [AD]$, $[DE] \parallel [AC]$,

$|ED| = 3$ br, $|AC| = 15$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 6 B) 9 C) 12 D) 14 E) 16

PUZA ACADEMY

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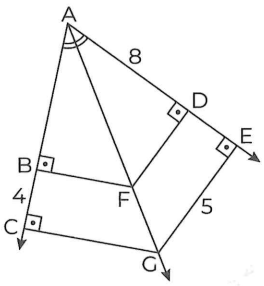
1.



$m(\widehat{CAG}) = m(\widehat{GAE})$

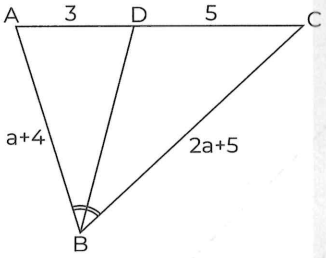
[FB] ⊥ [AC, [GC] ⊥ [AC, [FD] ⊥ [AE, [GE] ⊥ [AE

|BC| = 4 br, |GE| = 5 br, |AD| = 8 br

⇒ |AG| = ?

A) 10 B) $10\sqrt{2}$ C) 11 D) 12 E) 13

2.



ABC **üçgen** (triangle)

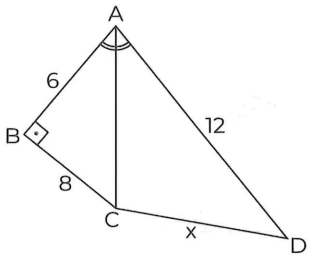
$m(\widehat{ABD}) = m(\widehat{DBC})$, |AD| = 3 br, |DC| = 5 br

|AB| = a + 4 br, |BC| = 2a + 5 br

⇒ |BC| = ?

A) 5 B) 9 C) 10 D) 15 E) 20

3.



[AB] ⊥ [BC], $m(\widehat{BAC}) = m(\widehat{CAD})$

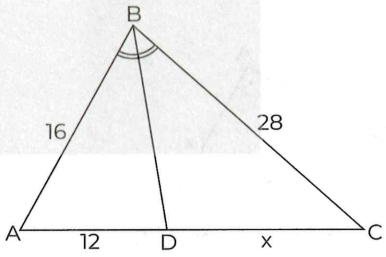
|AB| = 6 br, |BC| = 8 br, |AD| = 12 br

|CD| = x

⇒ x = ?

A) 6 B) 7 C) 8 D) 9 E) 10

4.



ABC **üçgen** (triangle)

$m(\widehat{ABD}) = m(\widehat{DBC})$

|AD| = 12 br, |AB| = 16 br, |BC| = 28 br

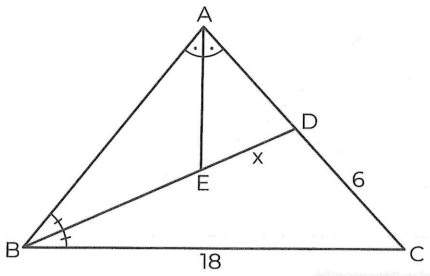
|DC| = x

⇒ x = ?

A) 12 B) 14 C) 16 D) 21 E) 25

PUZA ACADEMY

5.



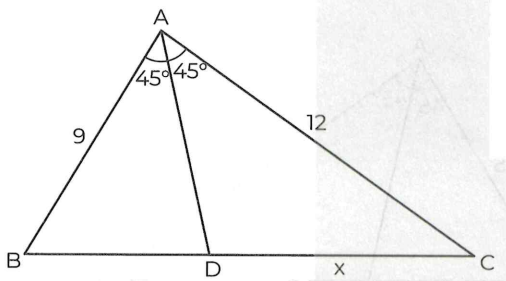
$m(\widehat{BAE}) = m(\widehat{EAC})$, $m(\widehat{ABD}) = m(\widehat{DBC})$

$|BC| = 18$ br, $|BD| = 12$ br, $|DC| = 6$ br, $|ED| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

6.



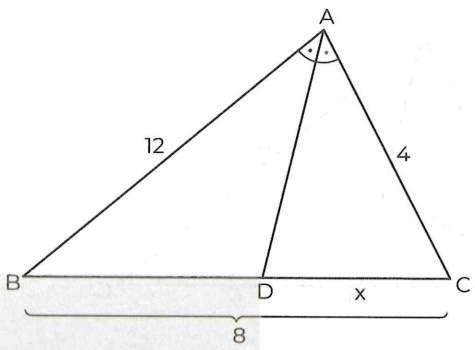
$m(\widehat{BAD}) = 45°$, $m(\widehat{DAC}) = 45°$

$|AC| = 12$ br, $|AB| = 9$ br, $|DC| = x$

$\Rightarrow x = ?$

A) $\frac{20}{7}$ B) $\frac{40}{7}$ C) $\frac{60}{7}$ D) 10 E) $\frac{80}{7}$

7.



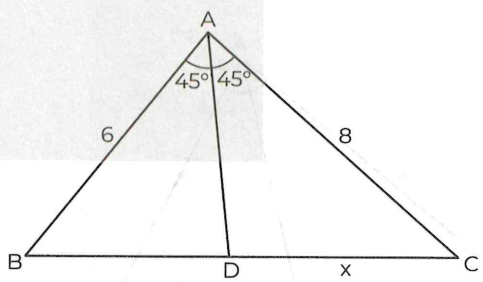
$m(\widehat{BAD}) = m(\widehat{DAC})$, $|AB| = 12$ br, $|AC| = 4$ br

$|BC| = 8$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 6

8.



$m(\widehat{BAD}) = 45°$, $m(\widehat{DAC}) = 45°$

$|AC| = 8$ br, $|AB| = 6$ br, $|DC| = x$

$\Rightarrow x = ?$

A) $\frac{30}{7}$ B) $\frac{36}{7}$ C) $\frac{40}{7}$ D) 6 E) 10

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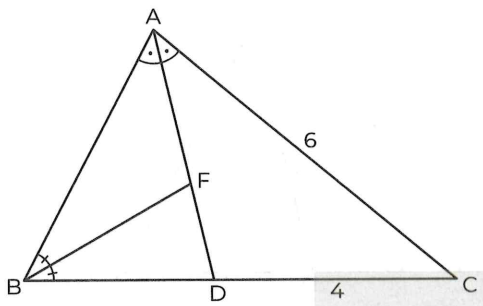
9.



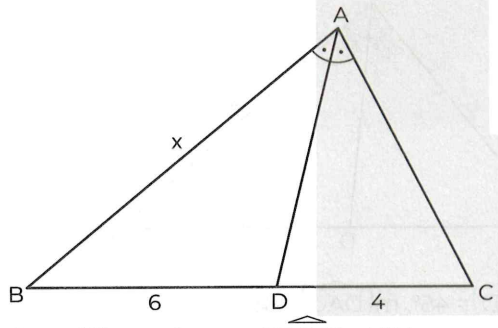
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ABF}) = m(\widehat{FBC})$

$|AC| = 6$ br, $|DC| = 4$ br

$\Rightarrow \frac{|AF|}{|FD|} = ?$

A) $\frac{2}{3}$ B) 1 C) $\frac{3}{2}$ D) 2 E) 4

10.



Çevre(Circumference)$(\widehat{ABC}) = 30$ br,

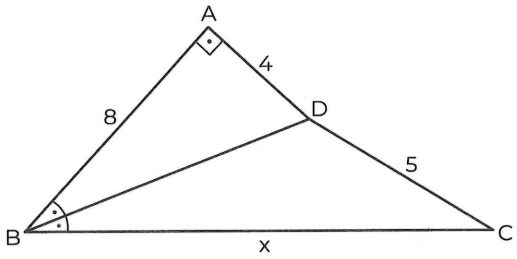
$m(\widehat{BAD}) = m(\widehat{DAC})$, $|BD| = 6$ br, $|DC| = 4$ br

$|AB| = x$

$\Rightarrow x = ?$

A) 6 B) 8 C) 10 D) 12 E) 16

11.



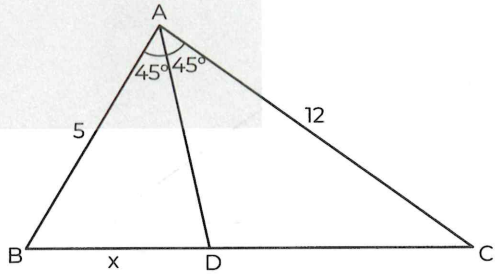
$m(\widehat{ABD}) = m(\widehat{DBC})$, $[DA] \perp [BA]$, $|AB| = 8$ br

$|AD| = 4$ br, $|DC| = 5$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 12 B) 11 C) 10 D) 9 E) 8

12.



$m(\widehat{BAD}) = 45°$, $m(\widehat{DAC}) = 45°$, $|AC| = 12$ br

$|AB| = 5$ br, $|BD| = x$

$\Rightarrow x = ?$

A) 1 B) $\frac{13}{17}$ C) $\frac{65}{17}$ D) $\frac{156}{17}$ E) 2

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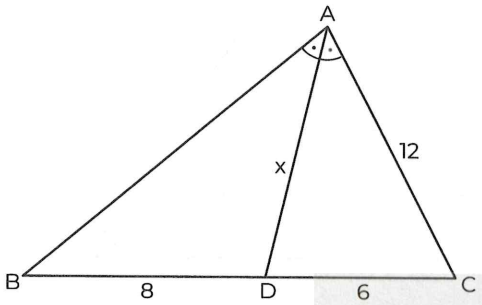
13.



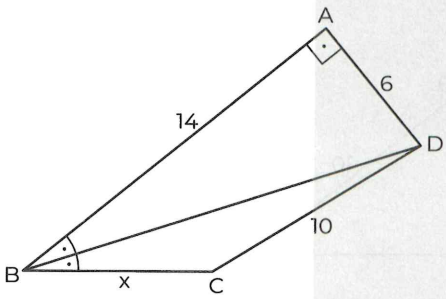
$m(\widehat{BAD}) = m(\widehat{DAC})$, $|AC| = 12$ br, $|BD| = 8$ br

$|DC| = 6$ br, $|AD| = x$

$\Rightarrow x = ?$

A) 16 B) 12 C) 10 D) 8 E) 6

14.



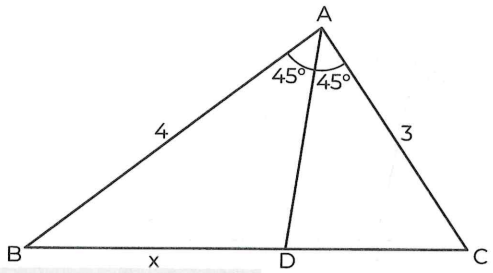
$m(\widehat{ABD}) = m(\widehat{DBC})$, $[DA] \perp [BA]$, $|AB| = 14$ br

$|DC| = 10$ br, $|AD| = 6$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

15.



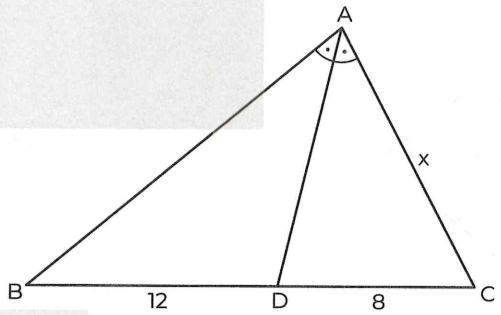
$m(\widehat{BAD}) = m(\widehat{DAC}) = 45°$, $|AB| = 4$ br

$|AC| = 3$ br, $|BD| = x$

$\Rightarrow x = ?$

A) $\frac{15}{7}$ B) $\frac{18}{7}$ C) $\frac{20}{7}$ D) 3 E) 5

16.



$Ç(\widehat{ABC}) = 45$ br, $(\widehat{BAD}) = m(\widehat{DAC})$

$|BD| = 12$ br, $|DC| = 8$ br, $|AC| = x$

$\Rightarrow x = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

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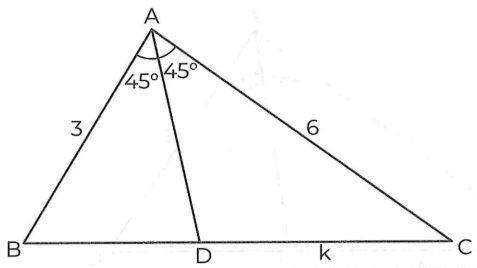
17.



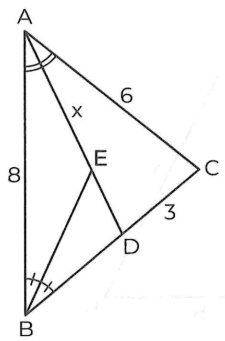
$m(\widehat{BAD}) = 45°$, $m(\widehat{DAC}) = 45°$

$|AC| = 6$ br, $|AB| = 3$ br, $|DC| = k$

$\Rightarrow k = ?$

A) $6\sqrt{5}$ B) $4\sqrt{5}$ C) $3\sqrt{5}$ D) $2\sqrt{5}$ E) $\sqrt{5}$

18.



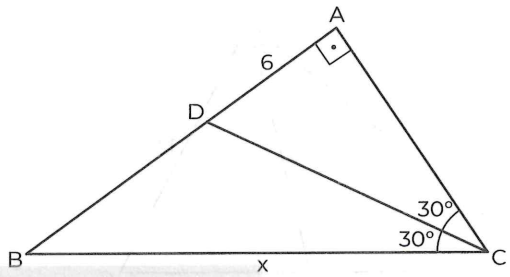
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ABE}) = m(\widehat{EBC})$

$|AB| = 8$ br, $|AC| = 6$ br, $|DC| = 3$ br, $|AE| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

19.



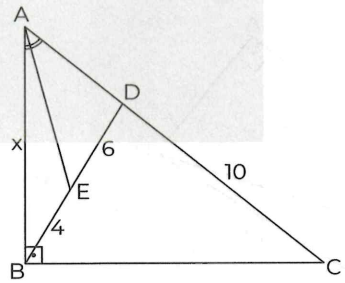
$m(\widehat{ACD}) = 30°$, $m(\widehat{DCB}) = 30°$, $[CA] \perp [AB]$

$|AD| = 6$ br, $|BC| = x$

$\Rightarrow x = ?$

A) $12\sqrt{3}$ B) 12 C) $9\sqrt{3}$ D) 9 E) $6\sqrt{3}$

20.



ABC **dik üçgen** (right triangle)

$m(\widehat{BAE}) = m(\widehat{EAC})$

$|DE| = 6$ br, $|BE| = 4$ br, $|DC| = 10$ br

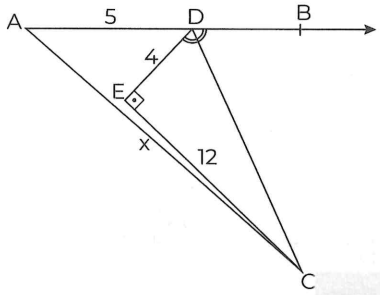
$|AB| = x$

$\Rightarrow x = ?$

A) $\frac{10}{3}$ B) $\frac{12}{5}$ C) 4 D) $\frac{20}{3}$ E) 5

PUZA ACADEMY

21.



$m(\widehat{BDC}) = m(\widehat{CDE})$, $[DE] \perp [EC]$

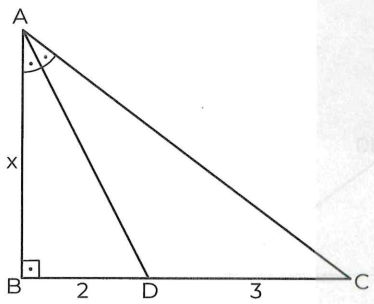
$|DE| = 4$ br, $|AD| = 5$ br

$|AC| = x$

$\Rightarrow x = ?$

A) 9 B) 10 C) 12 D) 13 E) 15

22.



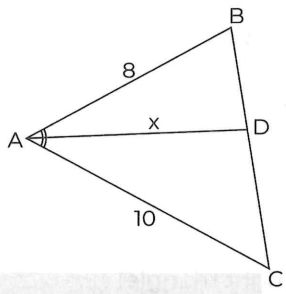
$m(\widehat{BAD}) = m(\widehat{DAC})$, $[AB] \perp [BC]$

$|BD| = 2$ br, $|DC| = 3$ br, $|AB| = x$

$\Rightarrow x = ?$

A) $\sqrt{5}$ B) $2\sqrt{5}$ C) 4 D) $4\sqrt{5}$ E) 8

23.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$

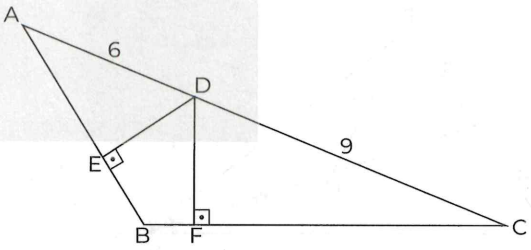
$|AB| = 8$ br, $|BC| = 9$ br, $|AC| = 10$ br

$|AD| = x$

$\Rightarrow x = ?$

A) $2\sqrt{5}$ B) $2\sqrt{10}$ C) $2\sqrt{15}$ D) $\sqrt{8}$ E) $8\sqrt{2}$

24.



ABC **üçgen** (triangle)

$[DE] \perp [AB]$, $[DF] \perp [BC]$, $|DE| = |DF|$

$|AD| = 6$ br, $|DC| = 9$ br, $|AB| = 12$ br

$\Rightarrow |BC| = ?$

A) 9 B) 10 C) 12 D) 18 E) 20

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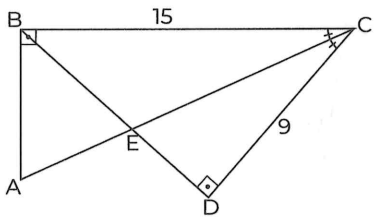
25.



ABC ve BDC **dik üçgen** (right triangle)

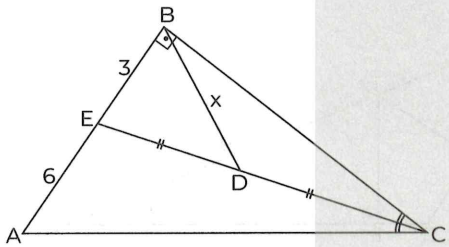
$m(\widehat{BCA}) = m(\widehat{ACD})$

$|CD| = 9$ br, $|BC| = 15$ br

$|AB| = ?$

A) $\frac{9}{2}$ B) 5 C) $\frac{11}{2}$ D) $\frac{13}{2}$ E) $\frac{15}{2}$

26.



ABC **dik üçgen** (right triangle)

$m(\widehat{BCE}) = m(\widehat{ECA})$, $|ED| = |DC|$

$|BE| = 3$ br, $|EA| = 6$ br

$|BD| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

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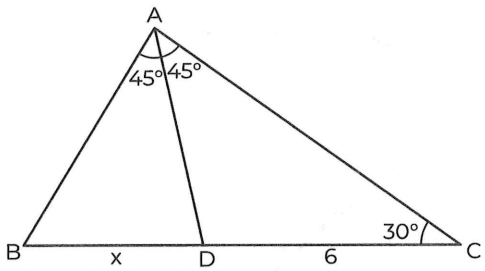
27.



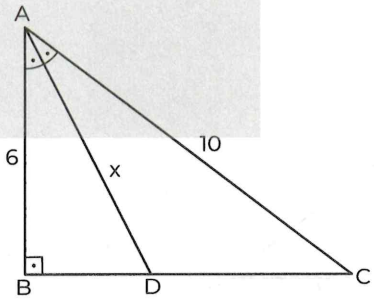
$m(\widehat{BAD}) = 45°$, $m(\widehat{DAC}) = 45°$, $m(\widehat{BCA}) = 30°$

$|DC| = 6$ br, $|BD| = x$

$\Rightarrow x = ?$

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) 3 D) $3\sqrt{3}$ E) 6

28.



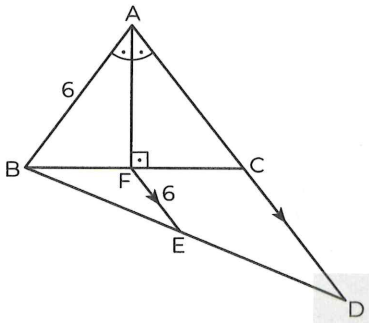
$m(\widehat{BAD}) = m(\widehat{DAC})$, $[AB] \perp [BC]$

$|AB| = 6$ br, $|AC| = 10$ br, $|AD| = x$

$\Rightarrow x = ?$

A) $3\sqrt{21}$ B) $6\sqrt{2}$ C) $3\sqrt{5}$ D) $6\sqrt{5}$ E) 12

29.



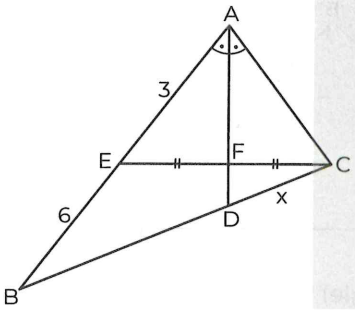
$m(\widehat{BAF}) = m(\widehat{FAD})$, $[AF] \perp [BC]$, $[FE] \parallel [AD]$

$|AB| = |FE| = 6$ br

$\Rightarrow |AD| = ?$

A) 6 B) 9 C) 12 D) 16 E) 18

30.



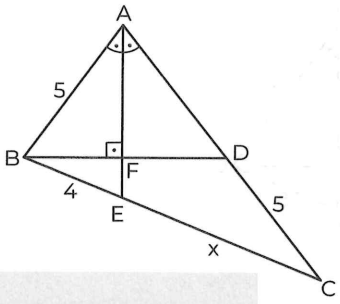
$m(\widehat{BAD}) = m(\widehat{DAC})$, $|EF| = |FC|$

$|AE| = 3$ br, $|BE| = 6$ br, $|BC| = 8$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 4 D) 6 E) 7

31.



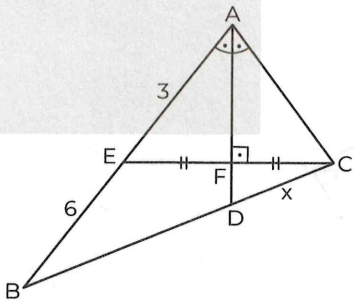
$m(\widehat{BAE}) = m(\widehat{EAC})$, $[AE] \perp [BD]$

$|AB| = |DC| = 5$ br, $|BE| = 4$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 4 B) 6 C) 8 D) 10 E) 12

32.



$[AD] \perp [EC]$, $|EF| = |FC|$, $|AE| = 3$ br, $|EB| = 6$ br

$|BC| = 4$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 1 B) $\frac{3}{2}$ C) 2 D) $\frac{5}{2}$ E) 3

PUZA ACADEMY

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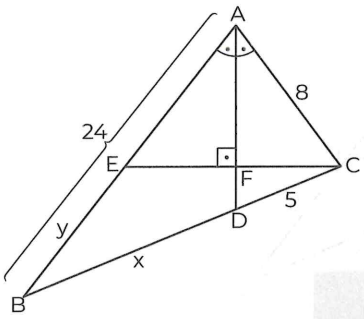
33.



$m(\widehat{BAD}) = m(\widehat{DAC})$, $[AD] \perp [EC]$

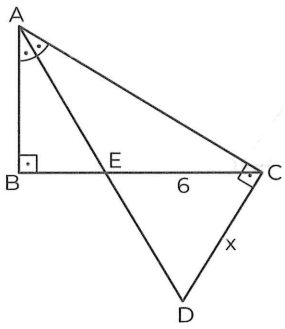
$|AB| = 24$ br, $|AC| = 8$ br, $|DC| = 5$ br, $|EB| = y$

$|BD| = x$

$\Rightarrow y - x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

34.



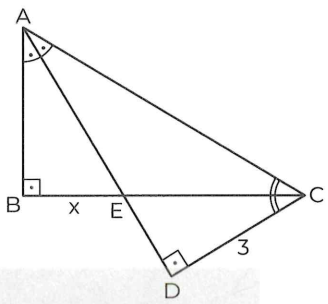
$m(\widehat{BAD}) = m(\widehat{DAC})$, $[AB] \perp [BC]$, $[AC] \perp [DC]$

$|EC| = 6$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) $2\sqrt{3}$ D) 6 E) $6\sqrt{3}$

35.



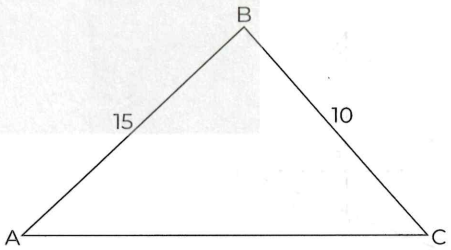
$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ACB}) = m(\widehat{BCD})$

$[AB] \perp [BC]$, $[DC] \perp [DA]$, $|CD| = 3$ br, $|BE| = x$

$\Rightarrow x = ?$

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) 3 D) 6 E) $6\sqrt{3}$

36.



ABC **üçgen** (triangle)

$2 \cdot m(\widehat{BAC}) = m(\widehat{ABC})$

$|BC| = 10$ br, $|AB| = 15$ br

$|AC| = ?$

A) 12 B) $5\sqrt{5}$ C) 14 D) $5\sqrt{10}$ E) $6\sqrt{5}$

PUZA ACADEMY

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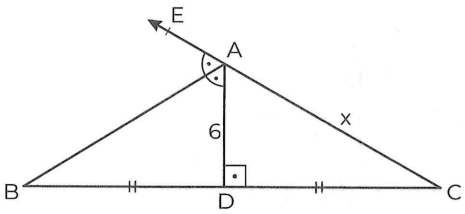
1.



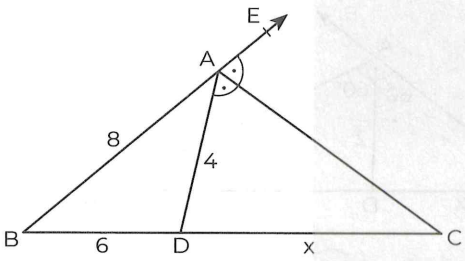
$m(\widehat{EAB}) = m(\widehat{BAD})$, $[AD] \perp [BC]$, $|BD| = |DC|$

$|AD| = 6$ br, $|AC| = x$

$\Rightarrow x = ?$

A) 15 B) 12 C) 10 D) 9 E) 8

2.



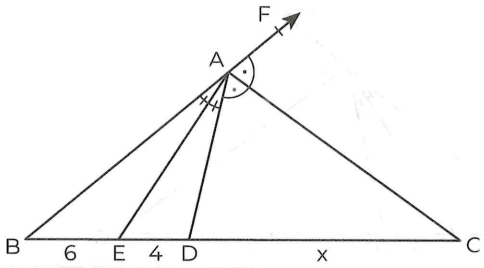
$m(\widehat{EAC}) = m(\widehat{CAD})$

$|AB| = 8$ br, $|AD| = 4$ br, $|BD| = 6$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 12

3.



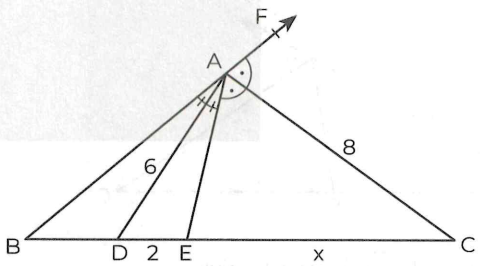
$m(\widehat{FAC}) = m(\widehat{CAD})$, $m(\widehat{DAE}) = m(\widehat{EAB})$

$|BE| = 6$ br, $|ED| = 4$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 20 B) 18 C) 16 D) 14 E) 2

4.



$m(\widehat{FAC}) = m(\widehat{CAE})$, $m(\widehat{EAD}) = m(\widehat{DAB})$

$|AD| = 6$ br, $|AC| = 8$ br, $|DE| = 2$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

PUZA ACADEMY

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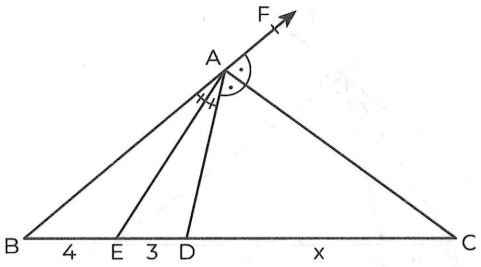
5.



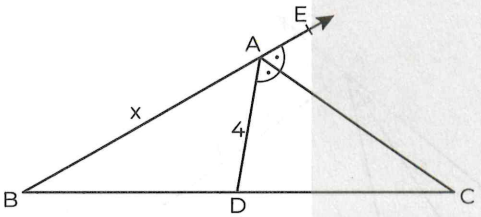
$m(\widehat{FAC}) = m(\widehat{CAD})$, $m(\widehat{DAE}) = m(\widehat{EAB})$

$|BE| = 4$ br, $|ED| = 3$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 16 B) 17 C) 18 D) 21 E) 24

6.



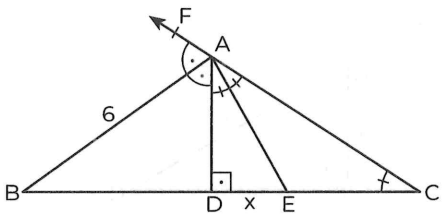
$m(\widehat{EAC}) = m(\widehat{CAD})$, $2|BD| = 3|DC|$

$|AD| = 4$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 15 B) 12 C) 10 D) 8 E) 6

7.



$m(\widehat{FAB}) = m(\widehat{BAD})$, $m(\widehat{DAE}) = m(\widehat{EAC})$

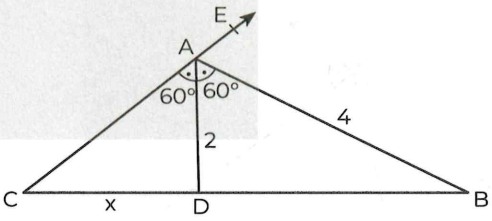
$m(\widehat{EAC}) = m(\widehat{ACB})$, $[AD] \perp [BC]$

$|AB| = 6$ br, $|DE| = x$

$\Rightarrow x = ?$

A) 1 B) $\frac{\sqrt{3}}{3}$ C) $\frac{2\sqrt{3}}{3}$ D) $\sqrt{3}$ E) 12

8.



$m(\widehat{CAD}) = 60°$, $m(\widehat{DAB}) = 60°$, $|AB| = 4$ br

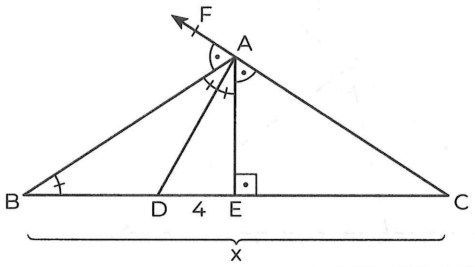
$|AD| = 2$ br, $|CD| = x$

$\Rightarrow x = ?$

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) 6 D) $6\sqrt{3}$ E) 12

PUZA ACADEMY

9.



$m(\widehat{FAB}) = m(\widehat{EAC})$, $m(\widehat{BAD}) = m(\widehat{DAE})$

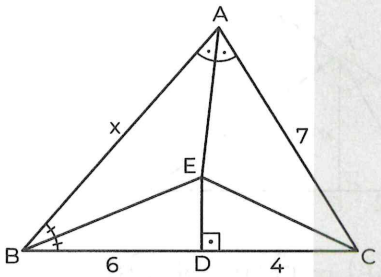
$m(\widehat{DAE}) = m(\widehat{ABC})$, $[AE] \perp [BC]$

$|DE| = 4$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 6 B) 8 C) 12 D) 20 E) 24

10.



$m(\widehat{BAE}) = m(\widehat{EAC})$, $m(\widehat{ABE}) = m(\widehat{EBC})$

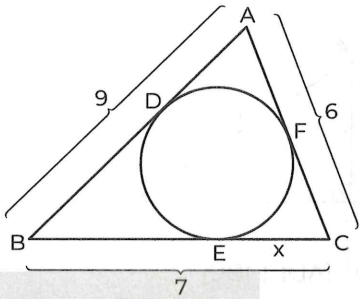
$[ED] \perp [BC]$, $|BD| = 6$ br, $|AC| = 7$ br, $|DC| = 4$ br,

$|AB| = x$

$\Rightarrow x = ?$

A) 7 B) 8 C) 9 D) 10 E) 11

11.

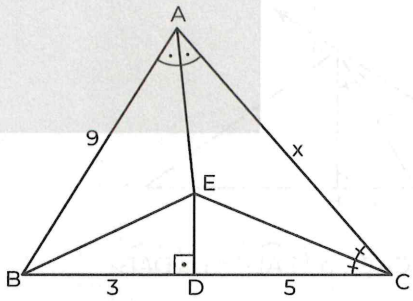


$|AB| = 9$ br, $|BC| = 7$ br, $|AC| = 6$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

12.



$m(\widehat{BAE}) = m(\widehat{EAC})$, $m(\widehat{ACE}) = m(\widehat{ECB})$

$[ED] \perp [BC]$, $|AB| = 9$ br, $|DC| = 5$ br, $|BD| = 3$ br

$|AC| = x$

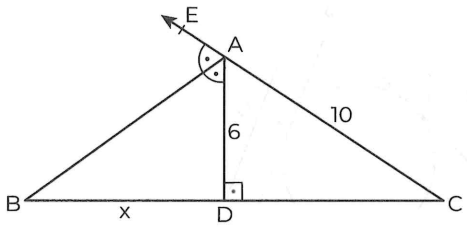
$\Rightarrow x = ?$

A) 12 B) 11 C) 10 D) 9 E) 8

PUZA ACADEMY

IRANINOVIN

1.



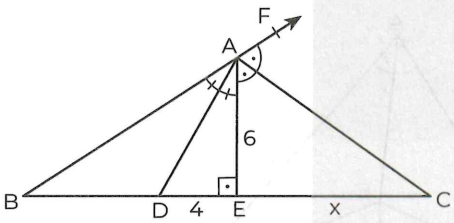
$m(\widehat{EAB}) = m(\widehat{BAD})$, $[AD] \perp [BC]$

$|AD| = 6$ br, $|AC| = 10$ br, $|BD| = x$

$\Rightarrow x = ?$

A) 4 B) 6 C) 8 D) 10 E) 12

2.



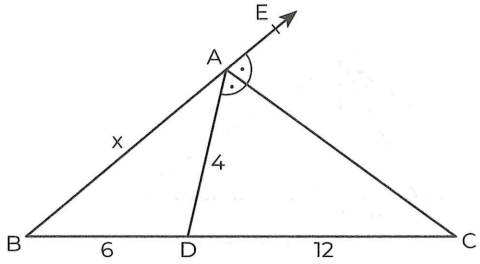
$m(\widehat{FAC}) = m(\widehat{CAE})$, $m(\widehat{EAD}) = m(\widehat{DAB})$

$[AE] \perp [BC]$, $|AE| = 6$ br, $|DE| = 4$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 10 B) 9 C) 8 D) 6 E) 4

3.



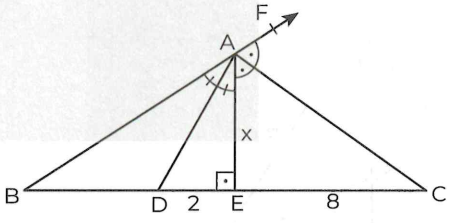
$m(\widehat{EAC}) = m(\widehat{CAD})$

$|DC| = 12$ br, $|AD| = 4$ br, $|BD| = 6$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

4.



$m(\widehat{FAC}) = m(\widehat{CAE})$, $m(\widehat{EAD}) = m(\widehat{DAB})$

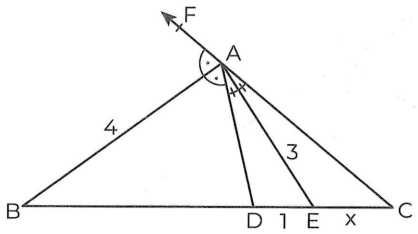
$[AE] \perp [BC]$, $|DE| = 2$ br, $|EC| = 8$ br, $|AE| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

PUZA ACADEMY

5.



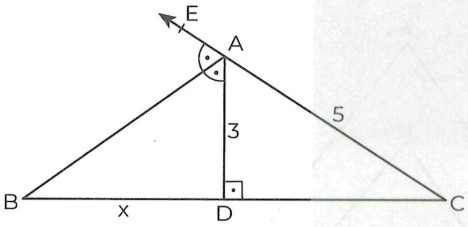
$m(\widehat{FAB}) = m(\widehat{BAD})$, $m(\widehat{DAE}) = m(\widehat{EAC})$

$|AB| = 4$ br, $|AE| = 3$ br, $|DE| = 1$ br, $|EC| = x$

$\Rightarrow x = ?$

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) 2 D) $\frac{5}{3}$ E) 10

6.



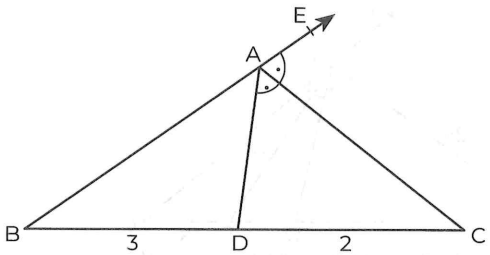
$m(\widehat{EAB}) = m(\widehat{BAD})$, $[AD] \perp [BC]$

$|AD| = 3$ br, $|AC| = 5$ br, $|BD| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

7.

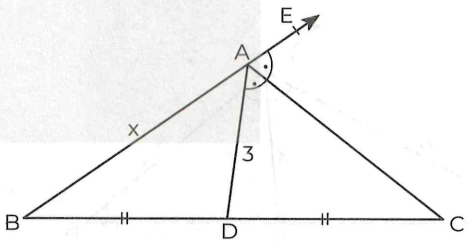


$m(\widehat{EAC}) = m(\widehat{CAD})$, $|BD| = 3$ br, $|DC| = 2$ br

$\Rightarrow \frac{|AB|}{|AD|} = ?$

A) $\frac{2}{5}$ B) $\frac{1}{2}$ C) $\frac{2}{3}$ D) $\frac{3}{2}$ E) $\frac{5}{2}$

8.



$m(\widehat{EAC}) = m(\widehat{CAD})$, $|BD| = |DC|$, $|AD| = 3$ br

$|AB| = x$

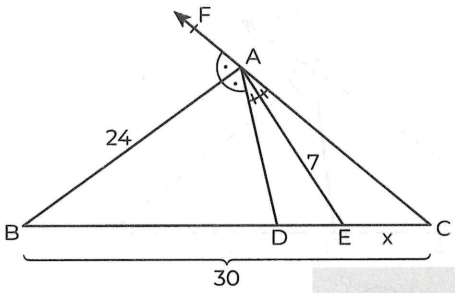
$\Rightarrow x = ?$

A) 4 B) 6 C) 9 D) 10 E) 12

PUZA ACADEMY

IRANINOVIN

9.



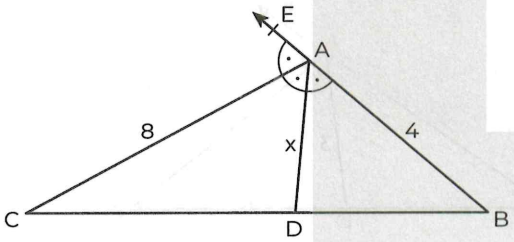
$m(\widehat{FAB}) = m(\widehat{BAD})$, $m(\widehat{DAE}) = m(\widehat{EAC})$

$|AB| = 24$ br, $|AE| = 7$ br, $|BC| = 30$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

10.



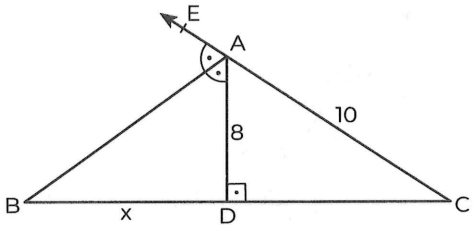
$m(\widehat{EAC}) = m(\widehat{CAD}) = m(\widehat{DAB})$

$|AC| = 8$ br, $|AB| = 4$ br, $|AD| = x$

$\Rightarrow x = ?$

A) $\frac{2}{3}$ B) $\frac{4}{3}$ C) $\frac{8}{3}$ D) 4 E) 5

11.



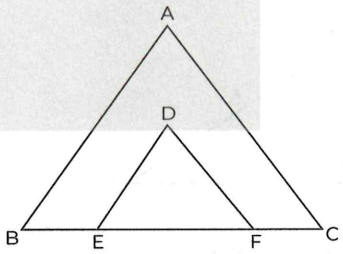
$m(\widehat{EAB}) = m(\widehat{BAD})$, $[AD] \perp [BC]$

$|AD| = 8$ br, $|AC| = 10$ br, $|BD| = x$

$\Rightarrow x = ?$

A) 24 B) 20 C) 18 D) 16 E) 14

12.



ABC üçgen (triangle), [DE] // [AB], [DF] // [AC]

Çevre (Circumference)($\widehat{DEF}$) = 11 br

D, iç teğet çemberin merkezi

(D, center of inscribed circle)

$\Rightarrow |BC| = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

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PUZA ACADEMY

NOTES:

BISECTOR

AÇIORTAY

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
D	B	C	C	A	D	C	C	B	A	B	D

13	14	15	16	17	18	19	20	21	22	23	24
E	C	D	B	D	C	B	D	D	D	D	B

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
E	D	E	D	D	C	B	C	C	D	B	C

13	14	15	16	17	18	19	20	21	22	23	24
B	C	C	B	D	C	A	D	E	B	C	D

25	26	27	28	29	30	31	32	33	34	35	36
E	C	B	C	E	B	C	A	A	D	A	D

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
B	C	A	A	D	C	D	B	E	C	B	B

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
E	B	C	C	D	D	E	B	B	C	A	C

NOTES:

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IRANINOVIN

NOTES:

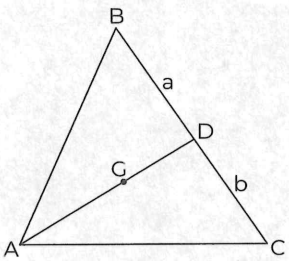
MEDIAN

KENARORTAY

CHAPTER | BÖLÜM 06

IRANINOVIN

1.



ABC **üçgen** (triangle)

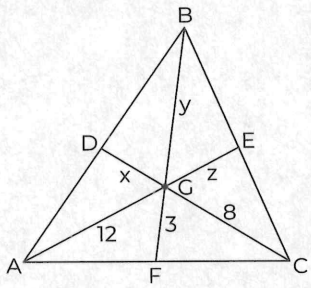
G, ağırlık merkezi (center of gravity)

$|BD| = a$ br, $|DC| = b$ br

$\Rightarrow \frac{a}{b} = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) $\frac{2}{3}$ D) 1 E) $\frac{3}{2}$

2.



ABC **üçgen** (triangle)

G, ağırlık merkezi (center of gravity)

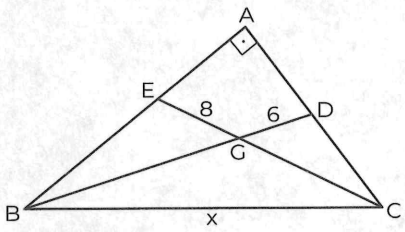
$|GF| = 3$ br, $|GC| = 8$ br, $|AG| = 12$ br

$|DG| = x$ br, $|BG| = y$ br, $|EG| = z$ br

$\Rightarrow x + y + z = ?$

A) 12 B) 14 C) 16 D) 20 E) 23

3.



BAC **dik üçgen** (right triangle)

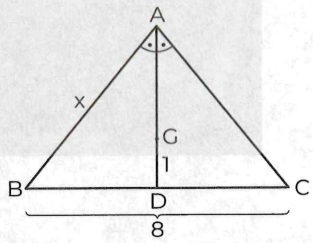
G, ağırlık merkezi (Center of gravity)

$[BA] \perp [CA]$, $|EG| = 8$ br, $|GD| = 6$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 3 B) $3\sqrt{5}$ C) 6 D) $6\sqrt{5}$ E) $12\sqrt{5}$

4.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $|BC| = 8$ br, $|GD| = 1$ br

$|AB| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) $4\sqrt{2}$ D) 8 E) $8\sqrt{2}$

PUZA ACADEMY

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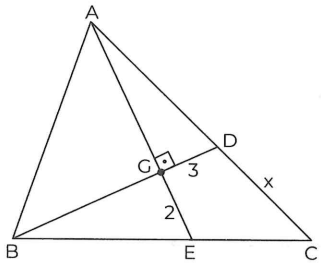
IRANINOVIN

5.



ABC **üçgen** (triangle)

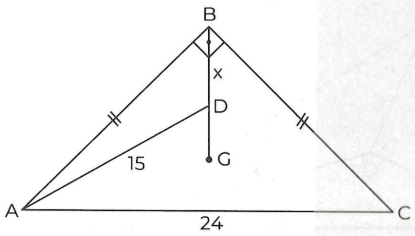
G, ağırlık merkezi (center of gravity)

[AE] ⊥ [BD], |EG| = 2 br, |DG| = 3 br, |DC| = x

⇒ x = ?

A) 3 B) $3\sqrt{2}$ C) $\sqrt{7}$ D) 5 E) $2\sqrt{3}$

6.



ABC **dik üçgen** (right triangle)

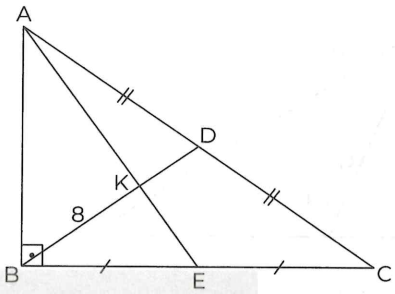
G, ağırlık merkezi (center of gravity)

|AB| = |BC|, |AD| = 15 br, |AC| = 24 br, |BD| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

7.



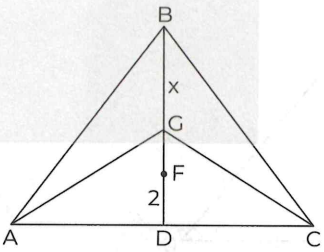
ABC **dik üçgen** (right triangle)

|BE| = |EC|, |AD| = |DC|, |BK| = 8 br

⇒ |AC| = ?

A) 15 B) 18 C) 20 D) 22 E) 24

8.



ABC **üçgen** (triangle)

G, F ağırlık merkezi (center of gravity)

|FD| = 2 br, |BG| = x

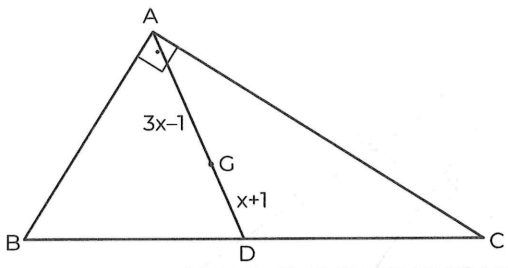
⇒ x = ?

A) 4 B) 6 C) 8 D) 12 E) 16

PUZA ACADEMY

IRANINOVIN

9.



BAC **dik üçgen** (right triangle)

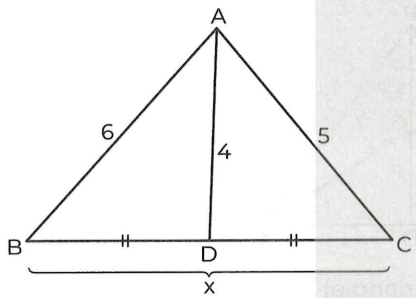
G, ağırlık merkezi (center of gravity)

$|AG| = 3x - 1$ br, $|GD| = x + 1$ br

$\Rightarrow |BC| = ?$

A) 4 B) 8 C) 12 D) 20 E) 24

10.



ABC **üçgen** (triangle)

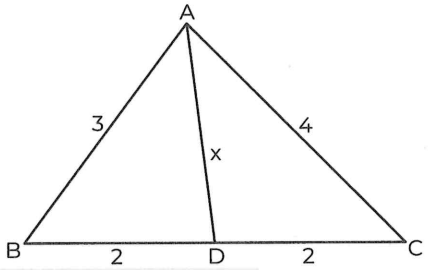
$|BD| = |DC|$, $|AB| = 6$ br, $|AC| = 5$ br

$|AD| = 4$ br, $|BC| = x$

$\Rightarrow x = ?$

A) $\sqrt{7}$ B) $2\sqrt{7}$ C) $\sqrt{17}$ D) $\sqrt{58}$ E) $2\sqrt{17}$

11.



ABC **üçgen** (triangle)

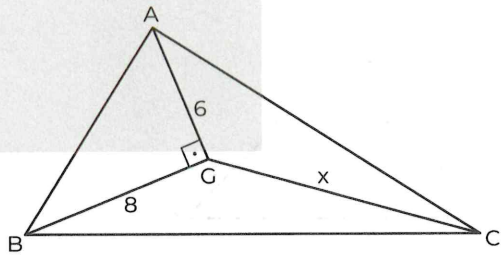
$|BD| = |DC| = 2$ br, $|AB| = 3$ br, $|AC| = 4$ br

$|AD| = x$

$\Rightarrow x = ?$

A) $\frac{\sqrt{17}}{2}$ B) $\sqrt{17}$ C) $\frac{\sqrt{34}}{2}$ D) $\sqrt{34}$ E) $2\sqrt{17}$

12.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

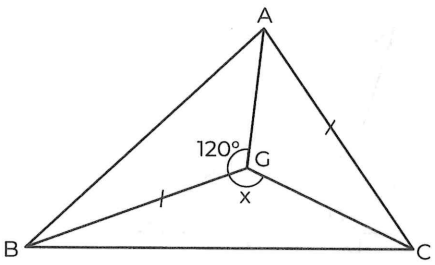
$[AG] \perp [GB]$, $|AG| = 6$ br, $|BG| = 8$ br, $|CG| = x$

$\Rightarrow x = ?$

A) 5 B) 10 C) 15 D) 20 E) 30

PUZA ACADEMY

13.



ABC **üçgen** (triangle)

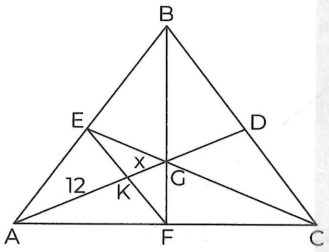
G, ağırlık merkezi (center of gravity)

$|BG| = |AC|$, $m(\widehat{AGB}) = 120°$, $m(\widehat{BGC}) = x$

$\Rightarrow x = ?$

A) 130 B) 140 C) 150 D) 160 E) 170

14.



ABC **üçgen** (triangle)

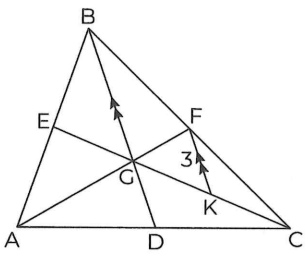
G, ağırlık merkezi (center of gravity)

$|AK| = 12$ br, $|KG| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 6

15.



ABC **üçgen** (triangle)

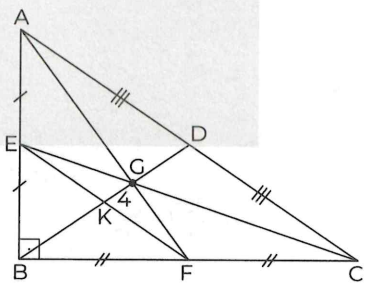
G, ağırlık merkezi (center of gravity)

$[FK] \,//\, [BD]$, $|FK| = 3$ br

$\Rightarrow |BD| = ?$

A) 6 B) 8 C) 9 D) 12 E) 15

16.



ABC **dik üçgen** (right triangle)

$|AD| = |DC|$, $|BF| = |FC|$, $|AE| = |EB|$

$|KG| = 4$ br

$\Rightarrow |AC| = ?$

A) 36 B) 40 C) 42 D) 48 E) 54

PUZA ACADEMY

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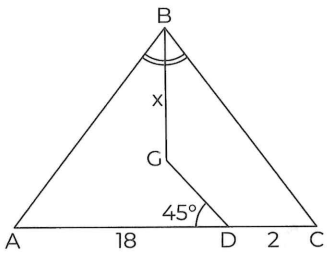
IRANINOVIN

17.



ABC **üçgen** (triangle)

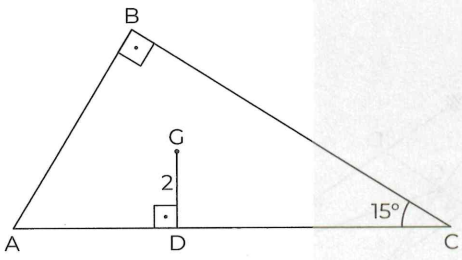
$m(\widehat{ABG}) = m(\widehat{GBC})$, $m(\widehat{ADG}) = 45°$

$|DC| = 2$ br, $|AD| = 18$ br, $|BG| = x$

$\Rightarrow x = ?$

A) 12 B) 16 C) 18 D) 20 E) 24

18.



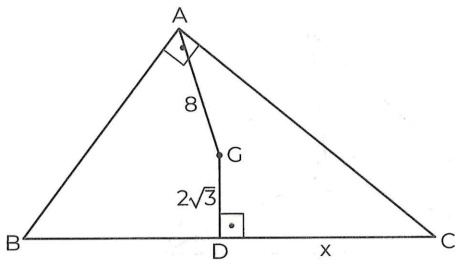
ABC **dik üçgen** (right triangle)

$m(\widehat{ACB}) = 15°$, $[GD] \perp [AC]$, $|GD| = 2$ br

$\Rightarrow |AC| = ?$

A) 12 B) 14 C) 18 D) 20 E) 24

19.



BAC **dik üçgen** (right triangle)

G, ağırlık merkezi (Center of gravity)

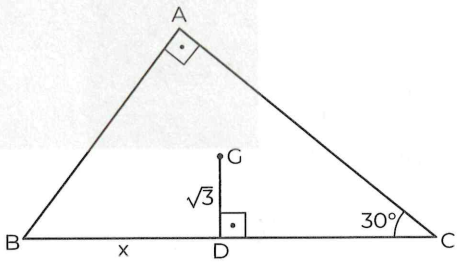
$[BA] \perp [CA]$, $[GD] \perp [BC]$, $|AG| = 8$ br

$|GD| = 2\sqrt{3}$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 10 B) 12 C) 14 D) 16 E) 18

20.



BAC **dik üçgen** (right triangle)

G, ağırlık merkezi (Center of gravity)

$[GD] \perp [BC]$, $m(\widehat{ACB}) = 30°$, $|GD| = \sqrt{3}$ br

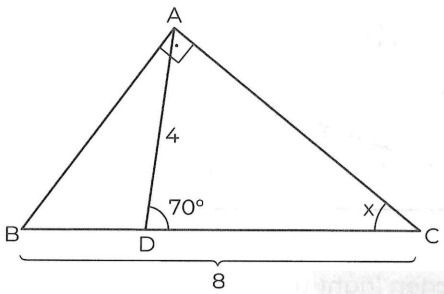
$|BD| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 5 D) 6 E) 8

PUZA ACADEMY

21.



BAC **dik üçgen** (right triangle)

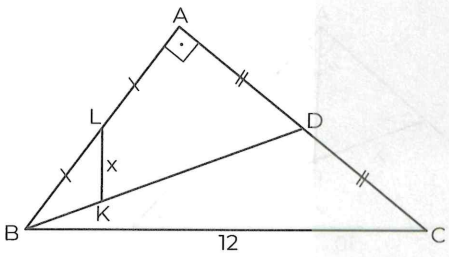
$|AD| = 4$ br, $|BC| = 8$ br, $m(\widehat{ADC}) = 70°$

$m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 20 B) 25 C) 30 D) 35 E) 40

22.



BAC **dik üçgen** (right triangle)

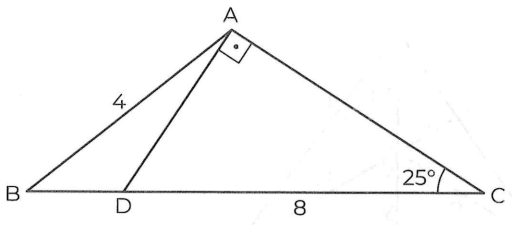
$2|BK| = |KD|$, $|AD| = |DC|$, $|AL| = |LB|$, $|BC| = 12$ br

$|LK| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 12

23.



ABC **üçgen** (triangle)

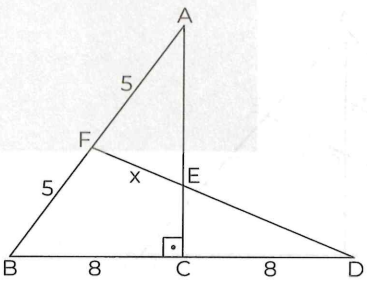
$m(\widehat{ACB}) = 25°$, $[DA| \perp [CA]$, $|AB| = 4$ br

$|DC| = 8$ br

$\Rightarrow m(\widehat{ABC}) = ?$

A) 20 B) 25 C) 40 D) 45 E) 50

24.



ACB **dik üçgen** (right triangle)

$|AF| = |FB| = 5$ br, $|BC| = |CD| = 8$ br, $|EF| = x$

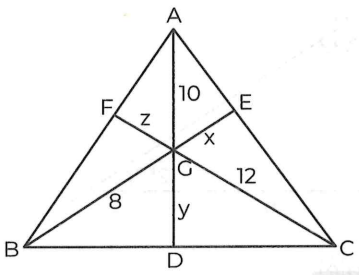
$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) 4 C) $\sqrt{17}$ D) $3\sqrt{2}$ E) $2\sqrt{5}$

PUZA ACADEMY

IRANINOVIN

1.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

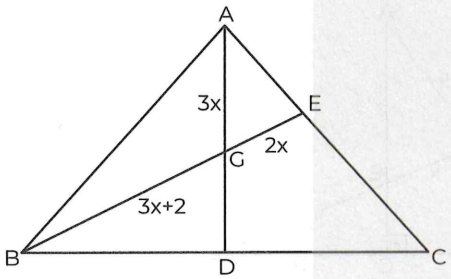
|BG| = 8 br, |AG| = 10 br, |CG| = 12 br

|EG| = x br, |DG| = y br, |FG| = z br

⇒ x + y + z = ?

A) 10 B) 12 C) 15 D) 18 E) 20

2.



ABC **üçgen** (triangle)

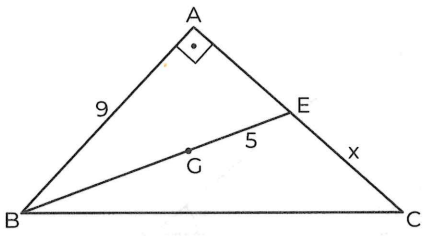
G, ağırlık merkezi (Center of gravity)

|BG| = (3x + 2) br, |AG| = 3x br, |GE| = 2x br

⇒ |GD| = ?

A) 1 B) 2 C) 3 D) 4 E) 5

3.



BAC **dik üçgen** (right triangle)

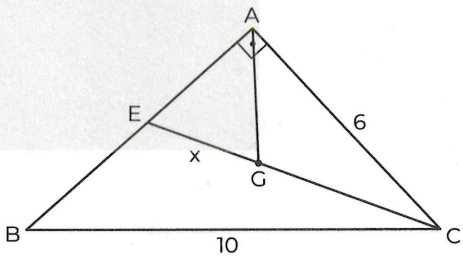
G, ağırlık merkezi (Center of gravity)

[BA] ⊥ [CA], |AB| = 9 br, |GE| = 5 br, |EC| = x

⇒ x = ?

A) 6 B) 8 C) 12 D) 16 E) 24

4.



BAC **dik üçgen** (right triangle)

G, ağırlık merkezi (Center of gravity)

[BA] ⊥ [CA], |BC| = 10 br, |AC| = 6 br, |EG| = x

⇒ x = ?

A) 1 B) $\sqrt{13}$ C) $\frac{2\sqrt{13}}{3}$ D) 3 E) $2\sqrt{13}$

PUZA ACADEMY

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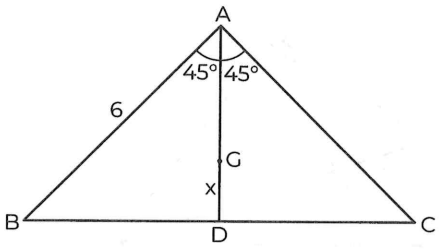
5.



ABC **üçgen** (triangle)

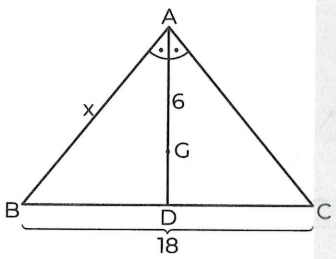
G, ağırlık merkezi (Center of gravity)

$m(\widehat{BAD}) = m(\widehat{DAC}) = 45°$, $|AB| = 6$ br, $|GD| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) 2 C) $2\sqrt{2}$ D) 4 E) $4\sqrt{2}$

6.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

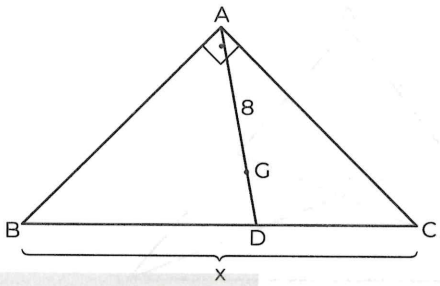
[AD] **açıortay** (bisector)

$|AG| = 6$ br, $|BC| = 18$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 9 B) $9\sqrt{2}$ C) $9\sqrt{3}$ D) 15 E) 20

7.



BAC **dik üçgen** (right triangle)

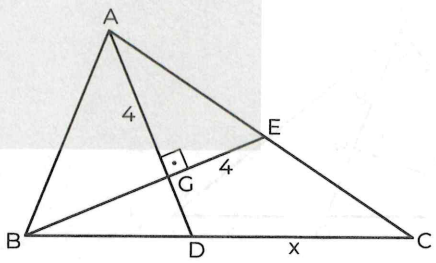
G, ağırlık merkezi (Center of gravity)

$|AG| = 8$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 4 B) 8 C) 12 D) 18 E) 24

8.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

$[AD] \perp [BE]$, $|AG| = 4$ br, $|GE| = 4$ br, $|DC| = x$

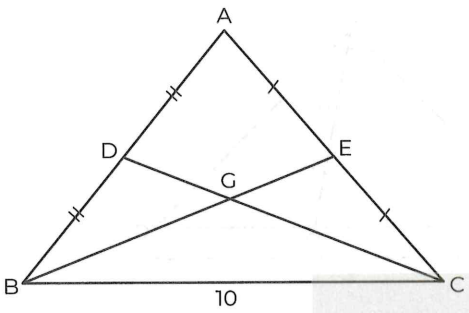
$\Rightarrow x = ?$

A) $\sqrt{2}$ B) $2\sqrt{2}$ C) $4\sqrt{2}$ D) $\sqrt{17}$ E) $2\sqrt{17}$

PUZA ACADEMY

IRANINOVIN

9.



ABC **üçgen** (triangle)

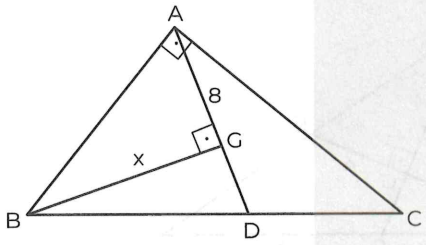
|AD| = |DB|, |AE| = |EC|, |BE| = 15 br, |DC| = 18 br

|BC| = 10 br

⇒ Ç(Circumference)($\widehat{GBC}$) = ?

A) 32 B) 30 C) 28 D) 26 E) 24

10.



BAC **dik üçgen** (right triangle)

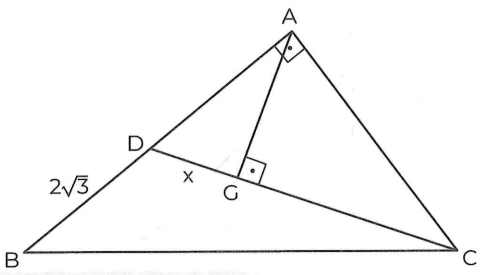
G, ağırlık merkezi (center of gravity)

[BA] ⊥ [CA], [AG] ⊥ [GB], |AG| = 8 br, |BG| = x

⇒ x = ?

A) 4 B) $4\sqrt{2}$ C) 8 D) $8\sqrt{2}$ E) 16

11.



BAC **dik üçgen** (right triangle)

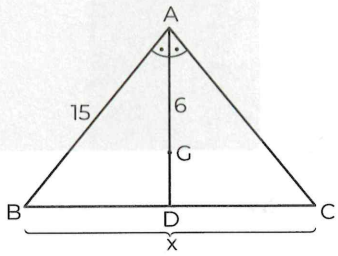
G, ağırlık merkezi (center of gravity)

[BA] ⊥ [AC], [AG] ⊥ [DC], |BD| = $2\sqrt{3}$ br, |DG| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

12.



ABC **üçgen** (triangle)

G, ağırlık merkezi (center of gravity)

[AD] **açıortay** (bisector)

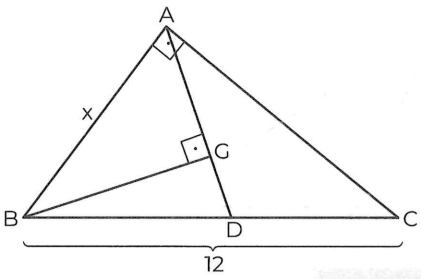
|AB| = 15 br, |AG| = 6 br, |BC| = x

⇒ x = ?

A) 6 B) $6\sqrt{5}$ C) 12 D) $2\sqrt{5}$ E) 24

PUZA ACADEMY

13.



BAC **dik üçgen** (right triangle)

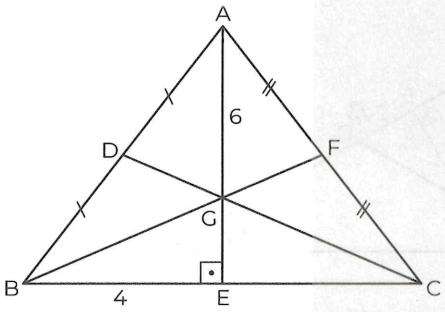
G, **ağırlık merkezi** (center of gravity)

[BG] ⊥ [AD], |BC| = 12 br, |AB| = x

⇒ x = ?

A) 4 B) $4\sqrt{3}$ C) 8 D) $8\sqrt{3}$ E) 12

14.



ABC **üçgen** (triangle)

G, ağırlık merkezi (center of gravity)

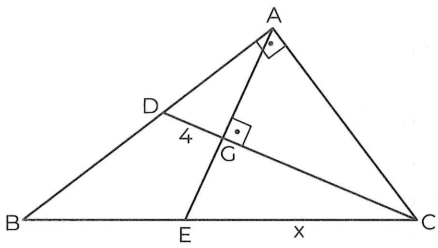
|AD| = |DB|, |AF| = |FC|, [AE] ⊥ [BC], |BE| = 4 br

|AG| = 6 br

⇒ Ç(Circumference)($\widehat{BGC}$) = ?

A) 12 B) 14 C) 16 D) 18 E) 20

15.



BAC **dik üçgen** (right triangle)

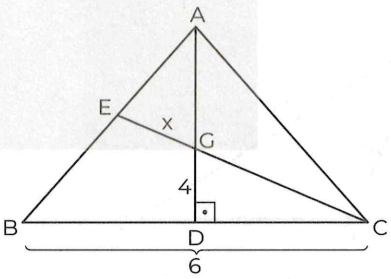
G, ağırlık merkezi (center of gravity)

[AE] ⊥ [DC], |DG| = 4 br, |EC| = x

⇒ x = ?

A) 3 B) $3\sqrt{2}$ C) $4\sqrt{2}$ D) 6 E) $6\sqrt{2}$

16.



ABC **üçgen** (triangle)

G, ağırlık merkezi (center of gravity)

[AD] ⊥ [BC], |GD| = 4 br, |EG| = x

⇒ x = ?

A) $\frac{5}{2}$ B) 5 C) 10 D) 15 E) 20

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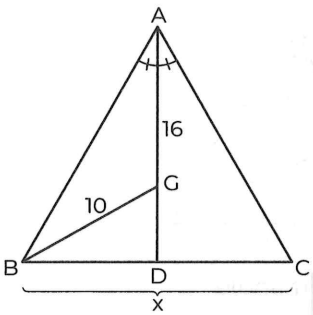
IRANINOVIN

17.



ABC **üçgen** (triangle)

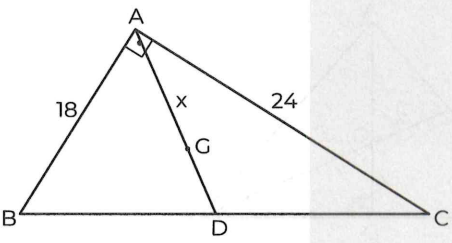
G, ağırlık merkezi (center of gravity)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $|AG| = 16$ br, $|BG| = 10$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

18.



BAC **dik üçgen** (right triangle)

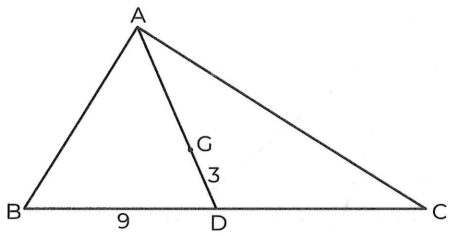
G, ağırlık merkezi (center of gravity)

$|AB| = 18$ br, $|AC| = 24$ br, $|AG| = x$

$\Rightarrow x = ?$

A) 5 B) 8 C) 10 D) 12 E) 15

19.



ABC **üçgen** (triangle)

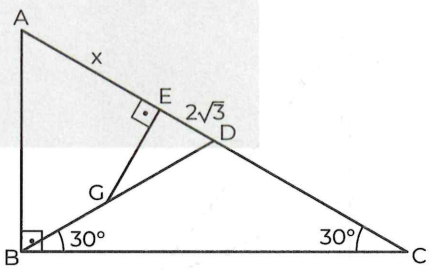
G, ağırlık merkezi (center of gravity)

$|BD| = 9$ br, $|GD| = 3$ br

$\Rightarrow m(\widehat{BAC}) = ?$

A) 45 B) 60 C) 90 D) 120 E) 150

20.



ABC **dik üçgen** (right triangle)

G, ağırlık merkezi (center of gravity)

$m(\widehat{DBC}) = 30°$, $m(\widehat{ACB}) = 30°$, $[GE] \perp [AC]$

$|ED| = 2\sqrt{3}$ br, $|AE| = x$

$\Rightarrow x = ?$

A) 5 B) $5\sqrt{3}$ C) $10\sqrt{3}$ D) 15 E) 20

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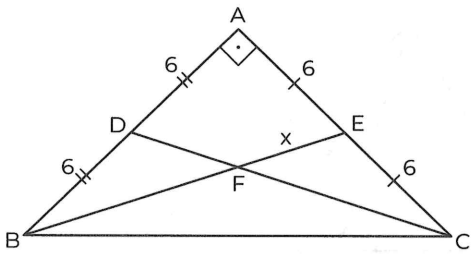
21.



BAC **dik üçgen** (right triangle)

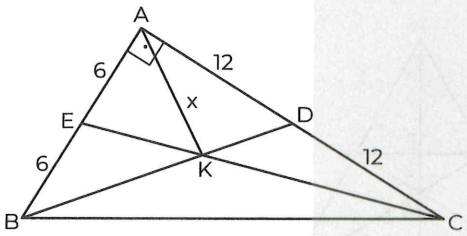
$[BA] \perp [AC]$, $|AD| = |DB| = 6$ br, $|AE| = |EC| = 6$ br

$|FE| = x$

$\Rightarrow x = ?$

A) $\sqrt{5}$ B) $2\sqrt{5}$ C) $4\sqrt{5}$ D) $7\sqrt{5}$ E) $12\sqrt{5}$

22.



BAC **dik üçgen** (right triangle)

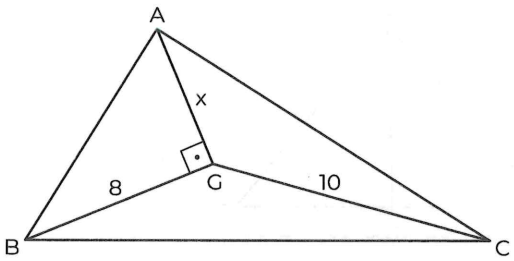
$|AE| = 6$ br, $|BE| = 6$ br, $|AD| = 12$ br, $|CD| = 12$ br

$|AK| = x$

$\Rightarrow x = ?$

A) $2\sqrt{5}$ B) $4\sqrt{5}$ C) 6 D) 12 E) 18

23.



ABC **üçgen** (triangle)

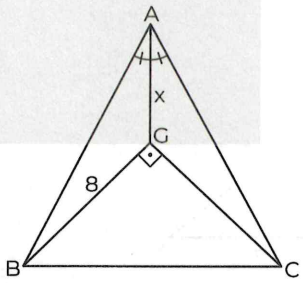
G, ağırlık merkezi (Center of gravity)

$[AG] \perp [GB]$, $|BG| = 8$ br, $|CG| = 10$ br, $|AG| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 6 D) 8 E) 12

24.



ABC **üçgen** (triangle)

G, ağırlık merkezi (center of gravity)

$m(\widehat{BAG}) = m(\widehat{GAC})$, $[BG] \perp [GC]$, $|BG| = 8$ br

$|AG| = x$

$\Rightarrow x = ?$

A) $2\sqrt{2}$ B) $4\sqrt{2}$ C) 8 D) $8\sqrt{2}$ E) 16

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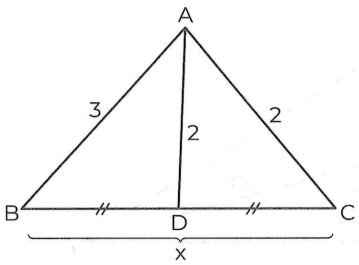
IRANINOVIN

25.



ABC **üçgen** (triangle)

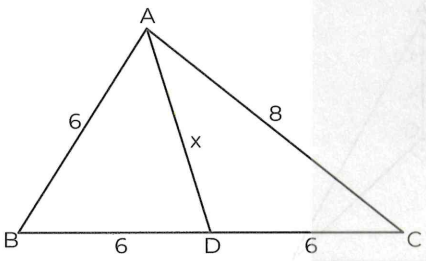
|BD| = |DC|, |AC| = |AD| = 2 br, |AB| = 3 br

|BC| = x

⇒ x = ?

A) $\sqrt{5}$ B) $\sqrt{10}$ C) $2\sqrt{5}$ D) $2\sqrt{10}$ E) $5\sqrt{2}$

26.



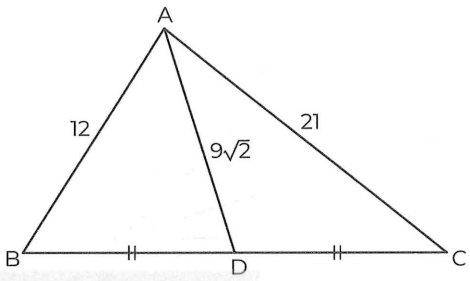
ABC **üçgen** (triangle)

|BD| = |DC| = |AB| = 6 br, |AC| = 8 br, |AD| = x

⇒ x = ?

A) $\sqrt{7}$ B) $\sqrt{14}$ C) $2\sqrt{7}$ D) $2\sqrt{14}$ E) 8

27.



ABC **üçgen** (triangle)

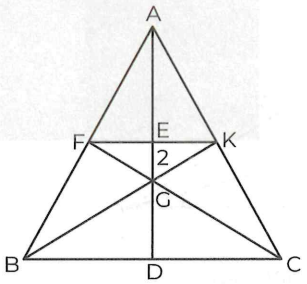
|BD| = |DC|, |AB| = 12 br, |AD| = $9\sqrt{2}$ br

|AC| = 21 br

⇒ |BC| = ?

A) $3\sqrt{3}$ B) $6\sqrt{3}$ C) $\sqrt{58}$ D) $\sqrt{82}$ E) $3\sqrt{58}$

28.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

|EG| = 2 br

⇒ |AD| = ?

A) 4 B) 6 C) 8 D) 10 E) 12

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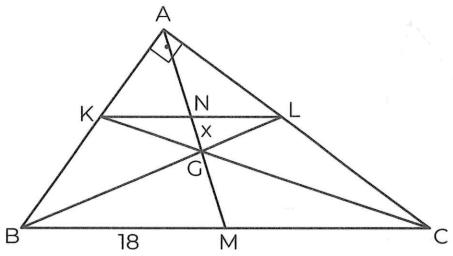
29.



BAC **dik üçgen** (right triangle)

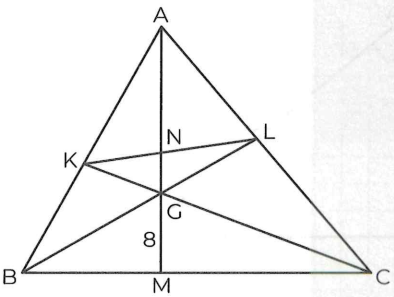
G, ağırlık merkezi (Center of gravity)

$|BM| = 18$ br, $|NG| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

30.



ABC **üçgen** (triangle)

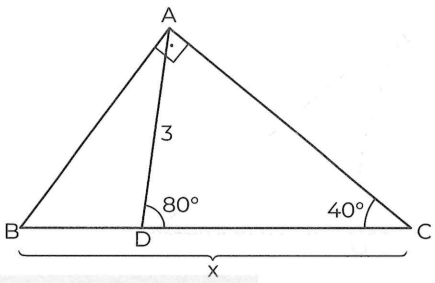
G, ağırlık merkezi (center of gravity)

$|GM| = 8$ br

$\Rightarrow |AN| = ?$

A) 16 B) 15 C) 12 D) 10 E) 9

31.



BAC **dik üçgen** (right triangle)

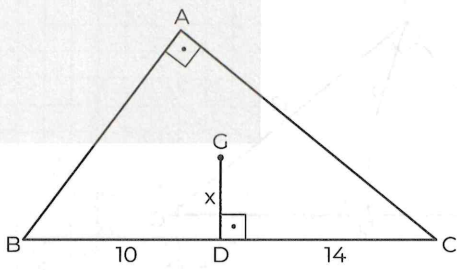
$[BA] \perp [AC]$, $m(\widehat{ADC}) = 80°$, $m(\widehat{ACB}) = 40°$

$|AD| = 3$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

32.



G, ağırlık merkezi (Center of gravity)

$[BA] \perp [AC]$, $[GD] \perp [BC]$, $|BD| = 10$ br

$|DC| = 14$ br, $|GD| = x$

$\Rightarrow x = ?$

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) 3 D) 6 E) 9

PUZA ACADEMY

IRANINOVIN

MEDIAN

KENARORTAY

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	E	B	D	B	E	D	E	D	C	B

13	14	15	16	17	18	19	20	21	22	23	24
C	D	C	D	B	E	C	C	D	A	E	C

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
C	C	C	C	A	B	E	E	A	D	B	E

13	14	15	16	17	18	19	20	21	22	23	24
B	D	E	A	A	C	C	C	B	B	C	D

25	26	27	28	29	30	31	32	33	34	35	36
B	B	E	E	B	C	C	B	B	B	A	E

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NOTES:

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NOTES:

ANGLE - SIDE RELATIONSHIPS

AÇI KENAR BAĞINTILARI

CHAPTER | BÖLÜM 07

IRANINOVIN

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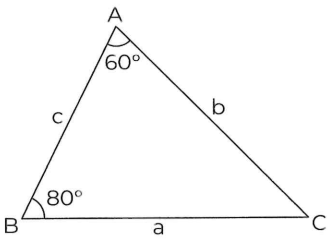
1.



ABC **üçgen** (triangle)

$m(\widehat{BAC}) = 60°$, $m(\widehat{ABC}) = 80°$

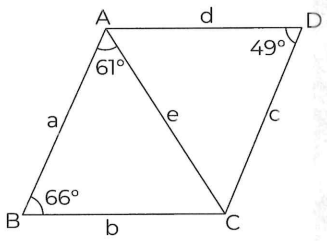
$|BC| = a$ br, $|AC| = b$ br, $|AB| = c$ br

⇒ ? < ? < ?

A) a < b < c B) a < c < b C) b < a < c

D) c < b < a E) c < a < b

2.



ABCD **dörtgen** (quadrilateral)

$[AD] \,//\, [BC]$, $m(\widehat{ADC}) = 49°$, $m(\widehat{BAC}) = 61°$

$m(\widehat{ABC}) = 66°$, $|AB| = a$ br, $|BC| = b$ br

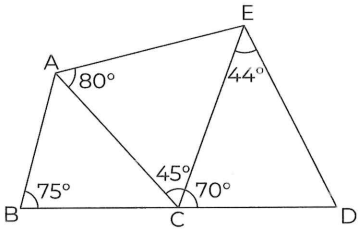
$|AC| = e$ br, $|AD| = d$ br, $|CD| = c$ br

⇒ **En uzun kenar hangisidir?**

Which side is the longest?

A) a B) b C) c D) d E) e

3.



$m(\widehat{CED}) = 44°$, $m(\widehat{ACE}) = 45°$, $m(\widehat{ECD}) = 70°$

$m(\widehat{ABD}) = 75°$, $m(\widehat{CAE}) = 80°$

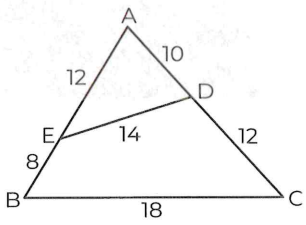
⇒ **En uzun kenar aşağıdakilerden hangisidir?**

Which side is the longest?

A) |AB| B) |AC| C) |DC|

D) |CE| E) |DE|

4.



Şekildeki bilgilere göre en büyük açı aşağıdaki seçeneklerden hangisidir?

Which of the following is the greatest angle for given figure above?

A) $m(\widehat{A})$ B) $m(\widehat{B})$ C) $m(\widehat{C})$

D) $m(\widehat{ADE})$ E) $m(\widehat{AED})$

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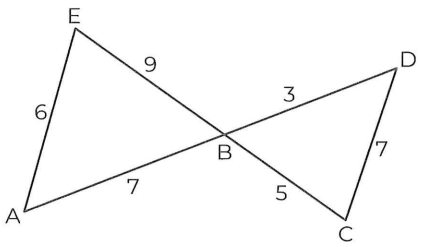
5.

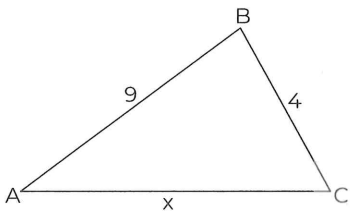


Şekildeki bilgilere göre en büyük açı aşağıdaki seçeneklerden hangisidir?

Which of the following is the greatest angle for given figure above?

A) $m(\widehat{A})$ B) $m(\widehat{B})$ C) $m(\widehat{C})$ D) $m(\widehat{D})$ E) $m(\widehat{E})$

6.



ABC **çeşitkenar üçgen** (scalene triangle)

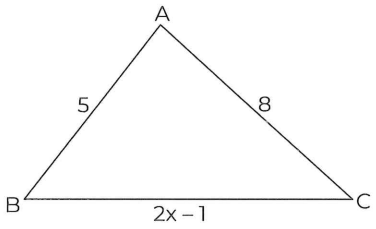
$|BC| = 4$ br, $|AB| = 9$ br, $|AC| = x$

⇒ **x'in alabileceği kaç farklı tam sayı değeri vardır?**

How many different integer values can x take?

A) 6 B) 7 C) 8 D) 9 E) 10

7.



ABC **üçgen** (triangle), $x \in Z^+$

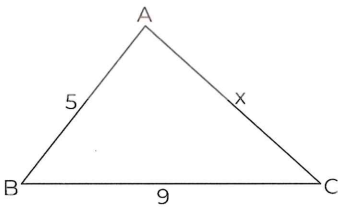
$|AB| = 5$ br, $|AC| = 8$ br, $|BC| = 2x - 1$ br

⇒ max(x) = ?

A) 3 B) 4 C) 5 D) 6 E) 7

PUZA ACADEMY

8.



ABC **üçgen** (triangle)

$m(\widehat{ABC}) < m(\widehat{BAC})$

$|AB| = 5$ br, $|BC| = 9$ br, $|AC| = x$

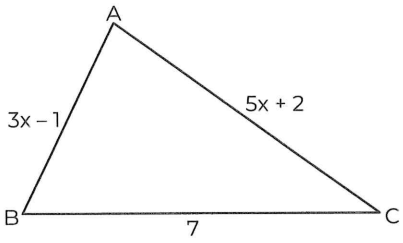
⇒ **x'in alabileceği kaç farklı tam sayı değeri vardır?**

How many different integer values can x take?

A) 3 B) 4 C) 5 D) 6 E) 7

IRANINOVIN

9.

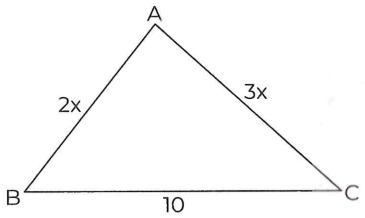


Şekildeki bilgilere göre x aşağıdaki seçeneklerden hangisi olabilir?

Which of the following could be x according to the information in the figure?

A) 0 B) 1 C) 2 D) 3 E) 4

10.



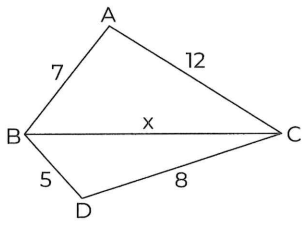
ABC **üçgen** (triangle), $x \in Z^+$

$|AB| = 2x$ br, $|AC| = 3x$ br, $|BC| = 10$ br

$\Rightarrow \sum x = ?$

A) 40 B) 42 C) 44 D) 54 E) 56

11.



ABC, BCD **üçgen** (triangle)

$|BD| = 5$ br, $|AB| = 7$ br, $|DC| = 8$ br

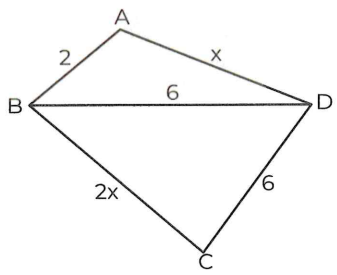
$|AC| = 12$ br, $|BC| = x$

⇒ **x'in alabileceği kaç farklı tam sayı değeri vardır?**

How many different integer values can x take?

A) 3 B) 4 C) 5 D) 6 E) 7

12.



Şekildeki bilgilere göre x'in tam sayı değeri aşağıdakilerden hangisidir?

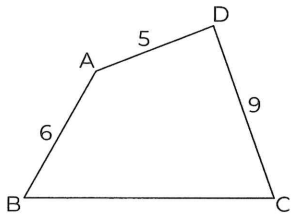
Which of the following is the integer value of x for given figure above?

A) 3 B) 5 C) 7 D) 8 E) 9

PUZA ACADEMY

@galata1010

13.



ABCD **dörtgen** (quadrilateral)

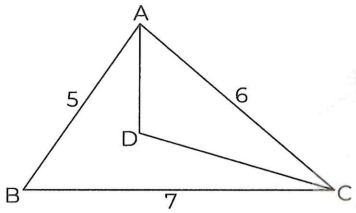
|AD| = 5 br, |AB| = 6 br, |DC| = 9 br

Çevre (Perimeter)(ABCD) $\in Z^+$

$\Rightarrow$ max(**Çevre** (Perimeter)(ABCD)) = ?

A) 37 B) 38 C) 39 D) 40 E) 41

14.



ABC **üçgen** (triangle)

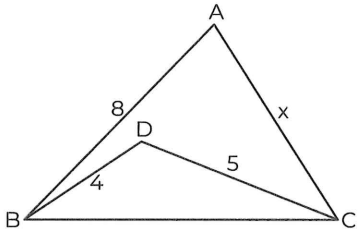
|AB| = 5 br, |AC| = 6 br, |BC| = 7 br

$\Rightarrow$ **|AD| + |DC| toplamının alabileceği kaç farklı tam sayı değeri vardır?**

How many different integer values are there that the sum can take?

A) 4 B) 5 C) 6 D) 7 E) 8

15.



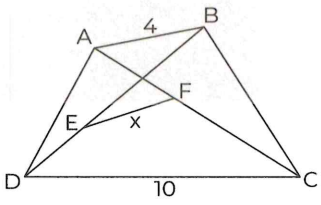
Şekildeki bilgilere göre en küçük x tamsayısı kaçtır?

What is the smallest integer of x for given figure above?

A) 1 B) 2 C) 3 D) 4 E) 5

PUZA ACADEMY

16.



|BE| = |ED|, |AF| = |FC|

Şekildeki bilgilere göre x'in alabileceği değer aralığı aşağıdakilerden hangisidir?

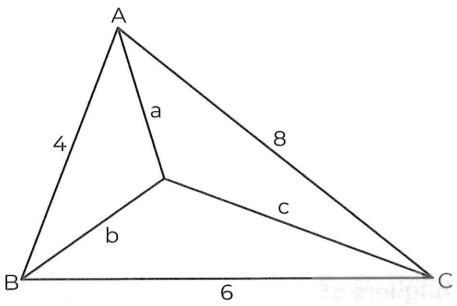
Which of the following options is the allowed values of x for given figure above?

A) $6 < x < 14$ B) $3 < x < 7$ C) $3 < x < 14$

D) $2 < x < 6$ E) $4 < x < 10$

IRANINOVIN

17.

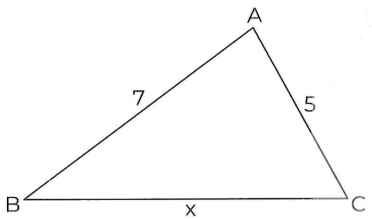


$(a + b + c) \in Z$

$\Rightarrow \max(a + b + c) = ?$

A) 8 B) 9 C) 15 D) 16 E) 17

18.



ABC **üçgen** (triangle), $x \in Z^+$

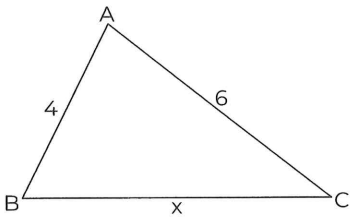
$m(\widehat{BAC}) < 90°$

$|AC| = 5$ br, $|AB| = 7$ br, $|BC| = x$

$\Rightarrow \max(x) = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

19.



ABC **üçgen** (triangle), $x \in Z^+$

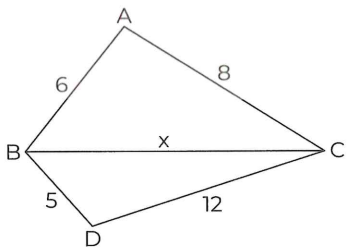
$m(\widehat{BAC}) > 90°$, $|AB| = 4$ br, $|AC| = 6$ br, $|BC| = x$

$\Rightarrow \sum x = ?$

A) 17 B) 24 C) 27 D) 37 E) 42

PUZA ACADEMY

20.



ABC, BDC **üçgen** (triangle)

$m(\widehat{BAC}) > 90°$, $m(\widehat{BDC}) < 90°$

$|BD| = 5$ br, $|AB| = 6$ br, $|AC| = 8$ br

$|DC| = 12$ br, $|BC| = x$

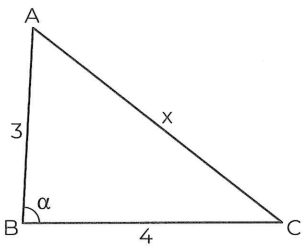
$\Rightarrow$ **x'in alabileceği kaç farklı tam sayı değeri vardır?**

How many different integer values can x take?

A) 2 B) 3 C) 4 D) 5 E) 6

@galata1010

21.



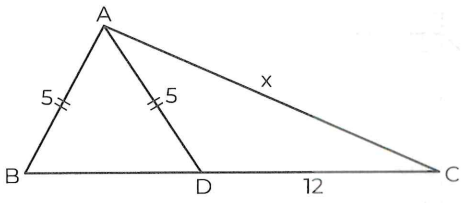
$m(\widehat{ABC}) = \alpha$, $\alpha < 90°$

Şekildeki bilgilere göre en büyük x tamsayısı kaçtır?

What is the largest integer of x for given figure above?

A) 1 B) 2 C) 4 D) 5 E) 6

22.

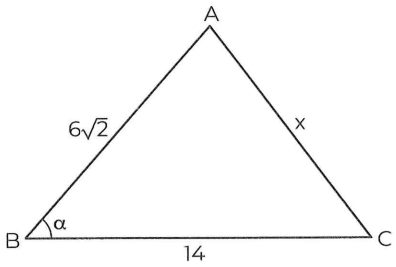


Şekildeki bilgilere göre en küçük x tamsayısı kaçtır?

What is the smallest integer of x for given figure above?

A) 8 B) 12 C) 13 D) 14 E) 15

23.



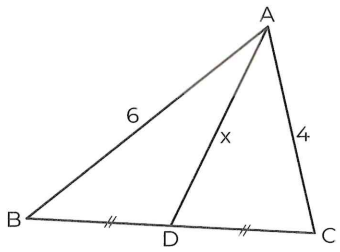
$m(\widehat{B}) = \alpha$, $\alpha > 45°$

Şekildeki bilgilere göre en küçük x tamsayısı kaçtır?

What is the smallest integer of x for given figure above?

A) 9 B) 10 C) 11 D) 12 E) 13

24.



$|BD| = |DC|$

Şekildeki bilgilere göre x'in alacağı değer aralığı aşağıdaki seçeneklerden hangisidir?

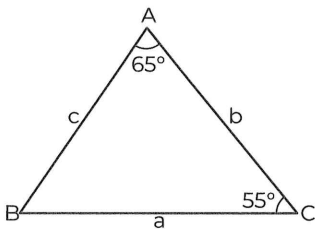
Which of the following options is the allowed values of x for given figure above?

A) $2 < x < 10$ B) $3 < x < 5$ C) $2 < x < 5$
D) $1 < x < 5$ E) $2 < x < 14$

PUZA ACADEMY

IRANINOVIN

1.



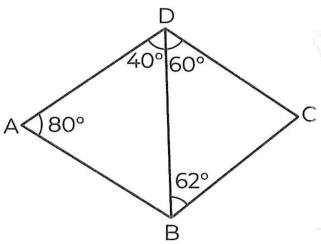
Şekildeki bilgilere göre aşağıdaki sıralamalardan hangisi doğrudur?

Which of the following is true for given figure above?

A) a > c > b B) a > b > c C) b > a > c

D) b > c > a E) c > a > b

2.



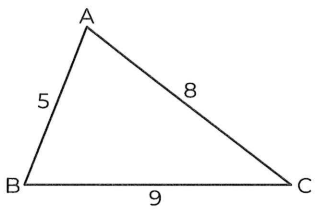
Şekildeki bilgilere göre en uzun kenar aşağıdaki seçeneklerden hangisidir?

Which of the following is the longest side for given figure above?

A) |AB| B) |BC| C) |AC|

D) |CD| E) |AD|

3.



Şekildeki bilgilere göre aşağıdaki sıralamalardan hangisi doğrudur?

Which of the following is true for given figure above?

A) $m(\widehat{A}) > m(\widehat{C}) > m(\widehat{B})$

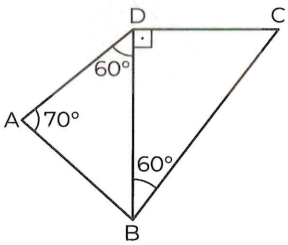
B) $m(\widehat{B}) > m(\widehat{C}) > m(\widehat{A})$

C) $m(\widehat{C}) > m(\widehat{B}) > m(\widehat{A})$

D) $m(\widehat{B}) > m(\widehat{A}) > m(\widehat{C})$

E) $m(\widehat{A}) > m(\widehat{B}) > m(\widehat{C})$

4.



Şekildeki bilgilere göre en kısa kenar aşağıdakilerden hangisidir?

Which of the followings is the short side according to the figure given above?

A) |AB| B) |BC| C) |AD|

D) |DC| E) |BD|

PUZA ACADEMY

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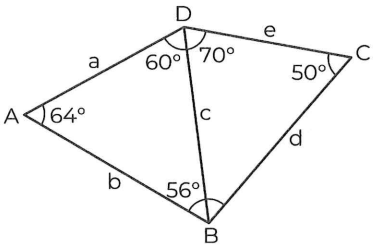
5.



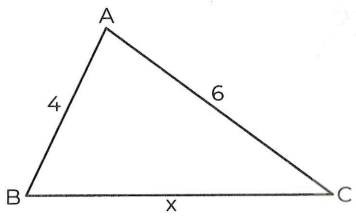
Şekildeki bilgilere göre, en uzun kenar aşağıdaki seçeneklerden hangisidir?

Which of the following is the longest side for given figure above?

A) a B) b C) c

D) d E) e

6.



$m(\widehat{B}) > m(\widehat{A})$

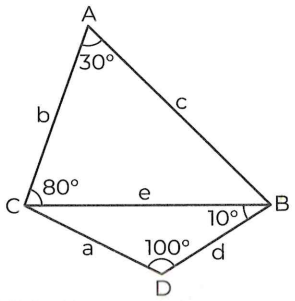
Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) $5 < x < 13$ B) $6 < x < 10$ C) $9 < x < 13$

D) $2 < x < 6$ E) $9 < x < 12$

7.

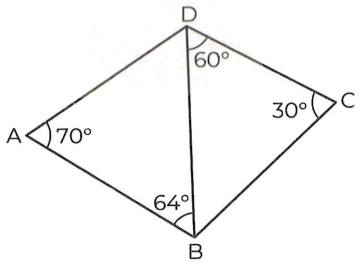


Şekildeki bilgilere göre en uzun kenar aşağıdaki seçeneklerden hangisidir?

Which of the following is the longest side for given figure above?

A) a B) b C) c D) d E) e

8.



Şekildeki bilgilere göre en kısa kenar aşağıdaki seçeneklerden hangisidir?

Which of the following is the short side according to the figure given above?

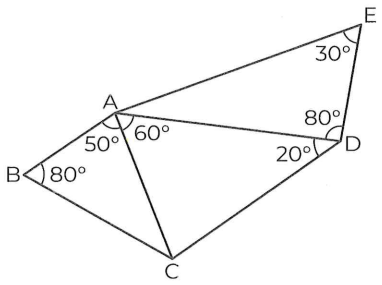
A) |AD| B) |AB| C) |DB|

D) |BC| E) |DC|

PUZA ACADEMY

IRANINOVIN

9.

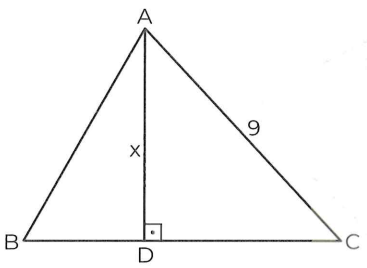


Şekildeki bilgilere göre en uzun kenar aşağıdaki seçeneklerden hangisidir?

Which of the following is the longest side according to the figure given above?

A) |AB| B) |AC| C) |CD|
D) |AD| E) |AE|

10.

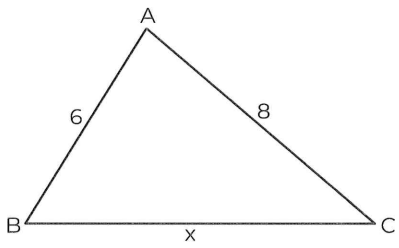


Şekildeki bilgilere göre en büyük x tamsayısı kaçtır?

What is the largest integer of x for given figure above?

A) 8 B) 7 C) 6 D) 5 E) 4

11.

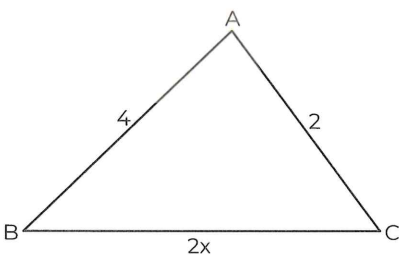


Şekildeki bilgilere göre x aşağıdakilerden hangisi olamaz?

Which of the following couldn't be x, according to the information in the figure?

A) 2 B) 7 C) 9 D) 11 E) 13

12.



Şekildeki bilgilere göre x aşağıdaki seçeneklerden hangisi olabilir?

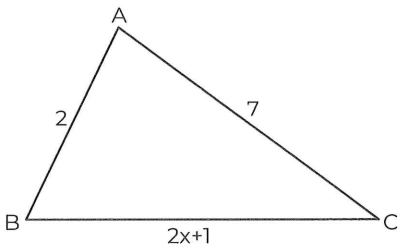
Which of the following could be x according to the information in the figure?

A) 1 B) 2 C) 5 D) 7 E) 9

PUZA ACADEMY

@galata1010

13.

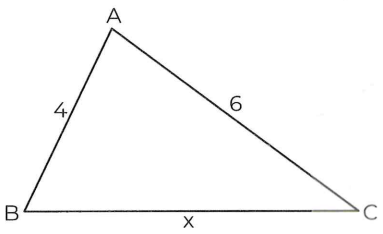


Şekildeki bilgilere göre en küçük x tamsayısı kaçtır?

What is the smallest integer of x for given figure above?

A) 1 B) 2 C) 3 D) 4 E) 5

14.



$m(\widehat{A}) > m(\widehat{B})$

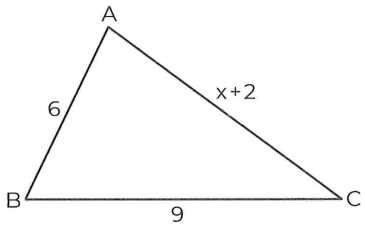
Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) $3 < x < 6$ B) $3 < x < 9$ C) $6 < x < 10$
D) $7 < x < 10$ E) $2 < x < 6$

PUZA ACADEMY

15.

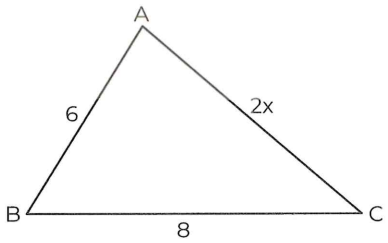


Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) $2 < x < 12$ B) $x < 11$ C) $1 < x$
D) $1 < x < 6$ E) $1 < x < 13$

16.



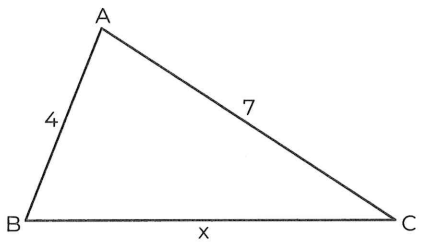
Şekildeki bilgilere göre x aşağıdaki seçeneklerden hangisi olabilir?

Which of the following could be x according to the information in the figure?

A) 1 B) 3 C) 7 D) 8 E) 10

IRANINOVIN

17.



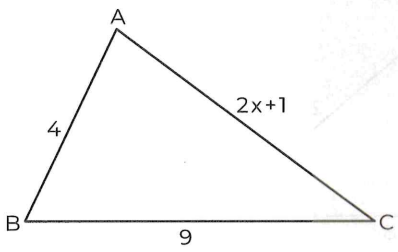
$m(\widehat{A}) < m(\widehat{B})$

Şekildeki bilgilere göre x aşağıdaki seçeneklerden hangisi olabilir?

Which of the following could be x according to the information in the figure?

A) 2 B) 3 C) 6 D) 8 E) 10

18.

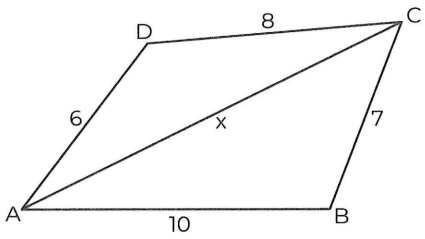


Şekildeki bilgilere göre x aşağıdaki seçeneklerden hangisi olabilir?

Which of the following could be x according to the information in the figure?

A) 2 B) 5 C) 6 D) 8 E) 10

19.

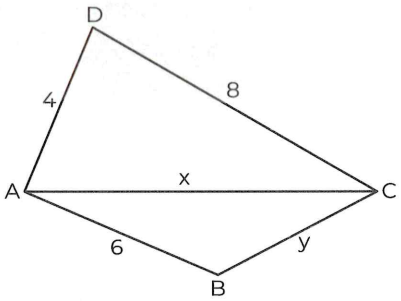


Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) $2 < x < 17$ B) $2 < x < 14$ C) $4 < x < 19$
D) $3 < x < 14$ E) $7 < x < 18$

20.



$x \in R,\ y \in N$

Şekildeki bilgilere göre max(x) için

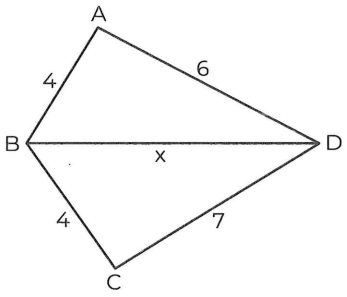
For max(x) for given information

$\Rightarrow$ max(y) = ?

A) 16 B) 17 C) 18 D) 19 E) 20

PUZA ACADEMY

21.

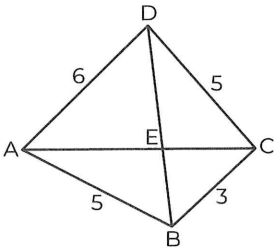


Şekildeki bilgilere göre en büyük x tamsayısı kaçtır?

Which of the largest integer of x for given figure above?

A) 1 B) 3 C) 6 D) 9 E) 11

22.



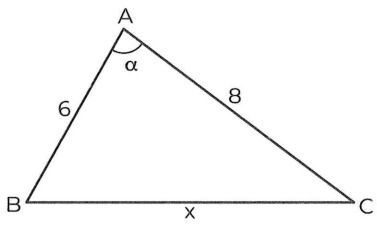
Şekildeki bilgilere göre |AC| + |BD| nin alacağı değerler aşağıdakilerden hangisidir?

Which of the following options is the allowed values of |AC| + |BD| for given figure above?

A) 7 < x < 10 B) 7 < x < 17 C) 4 < x < 8

D) 4 < x < 16 E) 4 < x < 9

23.



$m(\widehat{A}) = \alpha,\ \alpha < 90°$

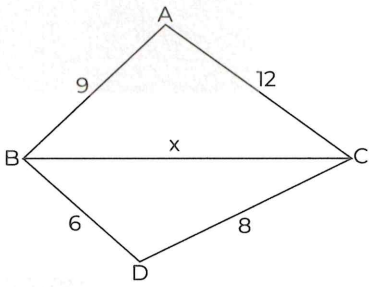
Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) 2 < x < 6 B) 2 < x < 14 C) 2 < x < 10

D) 10 < x < 14 E) 6 < x < 14

24.



ABC, BDC üçgen (triangle)

$m(\widehat{BAC}) < 90°,\ m(\widehat{BDC}) > 90°$

|BD| = 6 br, |CD| = 8 br, |AB| = 9 br

|AC| = 12 br, |BC| = x

$\Rightarrow \sum x = ?$

A) 24 B) 26 C) 32 D) 36 E) 50

PUZA ACADEMY

IRANINOVIN

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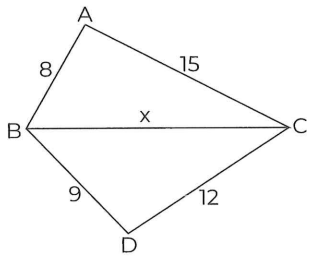
25.



ABC, BDC **üçgen** (triangle)

|AB| = 8 br, |BD| = 9 br, |CD| = 12 br

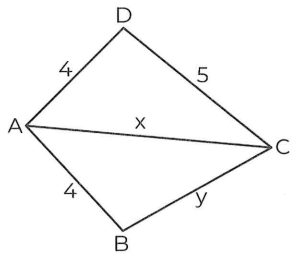
|AC| = 15 br, |BC| = x

⇒ **x'in alabileceği kaç farklı tam sayı değeri vardır?**

How many different integer values can x take?

A) 11 B) 12 C) 13 D) 14 E) 15

26.



x, y ∈ N

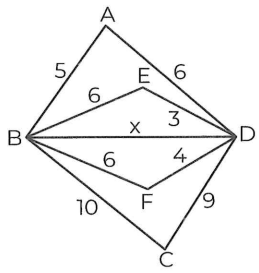
Şekildeki bilgilere göre max(x) için

For max(x) for given information

⇒ max(y) = ?

A) 11 B) 12 C) 13 D) 14 E) 15

27.



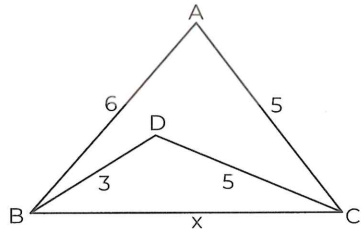
Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) (3, 9) B) (2, 12) C) (2, 10)
D) (4, 22) E) (3, 10)

PUZA ACADEMY

28.



Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following options is the allowed values of x for given figure above?

A) 2 < x < 8 B) 1 < x < 11 C) 2 < x < 6
D) 1 < x < 8 E) 2 < x < 11

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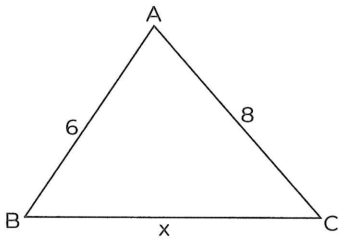
29.



ABC **üçgen** (triangle)

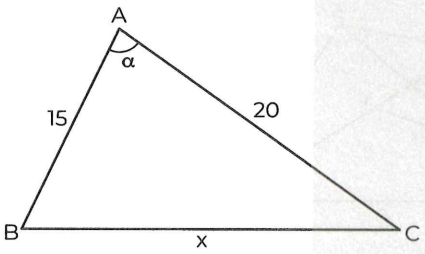
$m(\widehat{BAC}) > 90°$

$|AB| = 6$ br, $|AC| = 8$ br, $|BC| = x, x \in Z^+$

$\Rightarrow \sum x = ?$

A) 11 B) 23 C) 24 D) 32 E) 36

30.



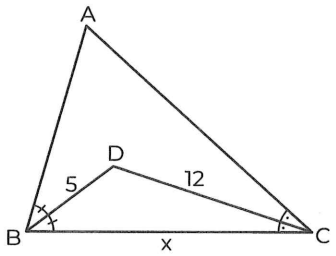
$m(\widehat{A}) = \alpha,\ \alpha > 90°$

Şekildeki bilgilere göre x tamsayısı kaçtır?

What is the integer of x for given above?

A) 20 B) 21 C) 23 D) 25 E) 27

31.



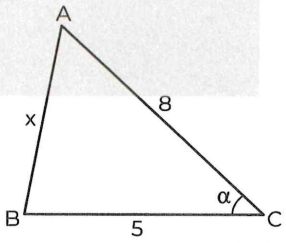
$m(\widehat{ABD}) = m(\widehat{DBC}),\ m(\widehat{ACD}) = m(\widehat{DCB})$

Şekildeki bilgilere göre en küçük x tamsayısı kaçtır?

What is the smallest integer of x for given figure above?

A) 9 B) 10 C) 12 D) 14 E) 15

32.



$m(\widehat{C}) = \alpha,\ \alpha < 60°$

Şekildeki bilgilere göre en büyük x tam sayısı kaçtır?

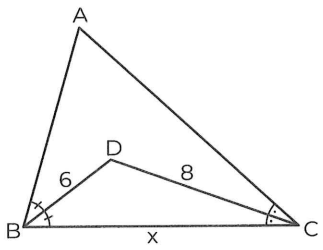
What is the largest integer of x for given figure above?

A) 6 B) 7 C) 8 D) 9 E) 10

PUZA ACADEMY

IRANINOVIN

33.



$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{BCD}) = m(\widehat{DCA})$

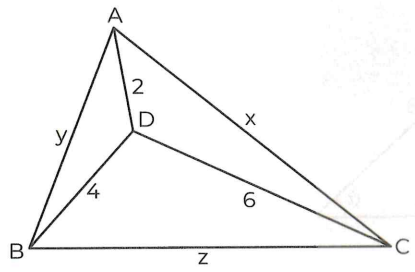
Şekildeki bilgilere göre x'in alacağı değerler aşağıdaki seçeneklerden hangisidir?

Which of the following option is the allowed values of x for given figure above?

A) $2 < x < 14$ B) $2 < x < 10$ C) $10 < x < 14$

D) $5 < x < 10$ E) $1 < x < 7$

34.

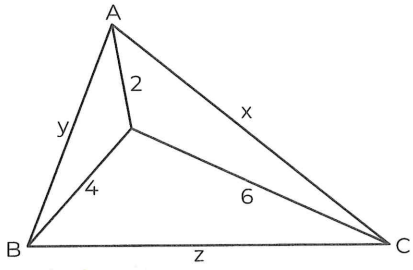


$(x + y + z) \in Z$

$\Rightarrow \max(x + y + z) = ?$

A) 25 B) 24 C) 23 D) 22 E) 21

35.

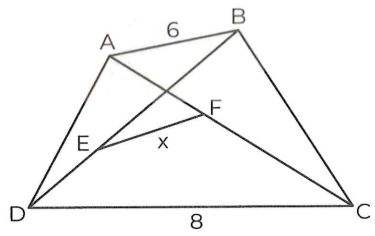


$(x + y + z) \in Z$

$\Rightarrow \min(x + y + z) = ?$

A) 11 B) 12 C) 13 D) 14 E) 15

36.



$|BE| = |ED|, |AF| = |FC|$

Şekildeki bilgilere göre en büyük x tamsayısı kaçtır?

What is the largest integer of x for given figure above?

A) 6 B) 7 C) 8 D) 12 E) 13

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NOTES:

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ANGLE - SIDE RELATIONSHIPS

AÇI KENAR BAĞINTILARI

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
E	D	E	B	A	A	D	B	B	B	E	B

13	14	15	16	17	18	19	20	21	22	23	24
C	B	B	B	E	E	A	A	C	D	C	D

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
B	D	E	C	D	D	C	B	E	A	A	B

13	14	15	16	17	18	19	20	21	22	23	24
C	C	E	B	C	B	D	A	D	D	C	D

25	26	27	28	29	30	31	32	33	34	35	36
C	A	A	A	E	E	D	A	C	C	D	A

NOTES:

NOTES:

AREA OF TRIANGLE

ÜÇGENDE ALAN

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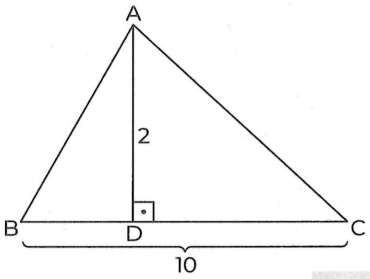
CHAPTER | BÖLÜM 08

IRANINOVIN

1.



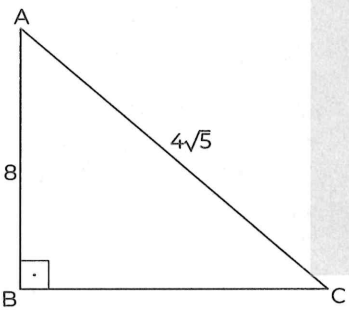
ABC **üçgen** (triangle)

[AD] ⊥ [BC], |AD| = 2 br, |BC| = 10 br

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 10 B) 18 C) 20 D) 24 E) 30

2.



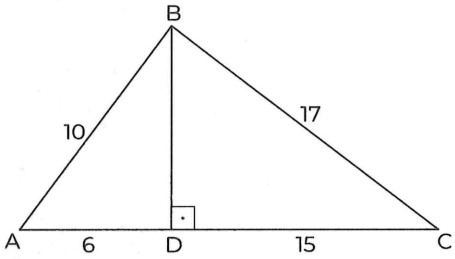
ABC **dik üçgen** (right triangle)

|AB| = 8 br, |AC| = $4\sqrt{5}$ br

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 8 B) 12 C) 16 D) 20 E) 24

3.



ABC **üçgen** (triangle)

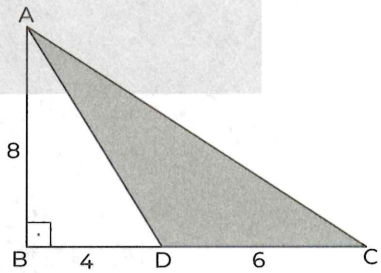
[BD] ⊥ [AC], |AD| = 6 br, |AB| = 10 br

|DC| = 15 br, |BC| = 17 br

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 21 B) 48 C) 52 D) 64 E) 84

4.



ABC **dik üçgen** (right triangle)

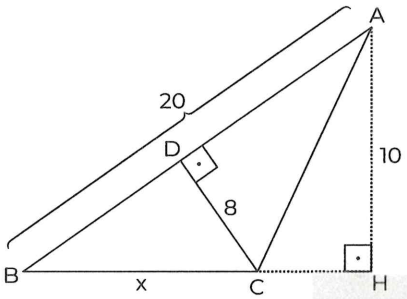
|BD| = 4 br, |DC| = 6 br, |AB| = 8 br

⇒ **Alan**(Area) ($\widehat{ADC}$) = ?

A) 16 B) 20 C) 24 D) 32 E) 40

PUZA ACADEMY

5.



ACB **üçgen** (triangle)

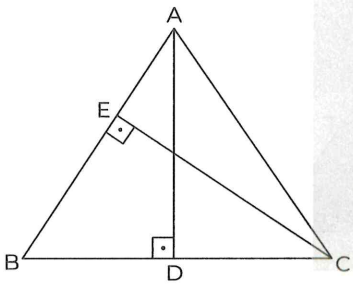
[AH] ⊥ [BH], [CD] ⊥ [AB], |AB| = 20 br

|AH| = 10 br, |CD| = 8 br, |BC| = x

⇒ x = ?

A) 10 B) 12 C) 14 D) 16 E) 18

6.



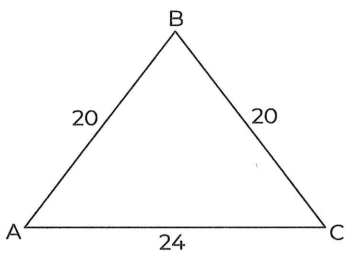
ABC **üçgen** (triangle)

|EC| = 12 br, |BC| = 16 br, |AB| = 20 br

⇒ |AD| = ?

A) 15 B) 18 C) 32 D) 36 E) 42

7.



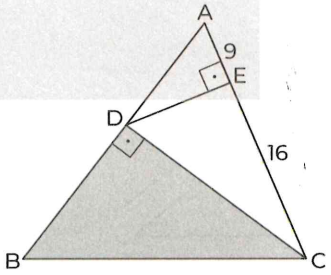
ABC **üçgen** (triangle)

|AB| = |BC| = 20 br, |AC| = 24 br

⇒ **Alan**(Area)($\widehat{ABC}$) = ?

A) 128 B) 144 C) 160 D) 176 E) 192

8.



ABC **üçgen** (triangle)

[CD] ⊥ [AB], [DE] ⊥ [AC], |AB| = |AC|

|AE| = 9 br, |EC| = 16 br

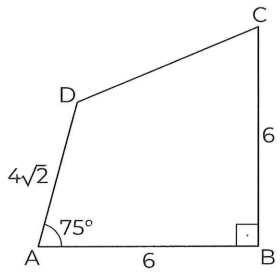
⇒ **Alan**(Area) ($\widehat{BDC}$) = ?

A) 90 B) 100 C) 120 D) 150 E) 180

PUZA ACADEMY

IRANINOVIN

9.



ABCD **dörtgen** (quadrilateral)

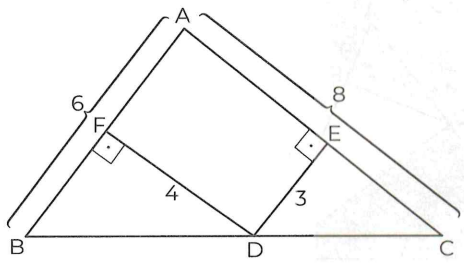
[CB] ⊥ [BA], $m(\widehat{DAB}) = 75°$, |BC| = |AB| = 6 br

$|AD| = 4\sqrt{2}$ br

⇒ **Alan**(Area) (ABCD) = ?

A) 24 B) 30 C) 32 D) 36 E) 40

10.



ABC **üçgen** (triangle)

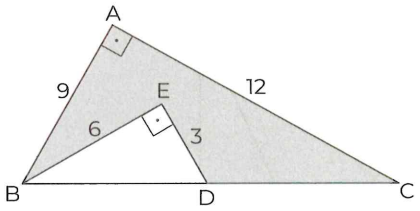
[DF] ⊥ [AB], [DE] ⊥ [AC], |DE| = 3 br, |FD| = 4 br

|AB| = 6 br, |AC| = 8 br

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 16 B) 18 C) 24 D) 32 E) 36

11.



BAC, BED **dik üçgen** (right triangle)

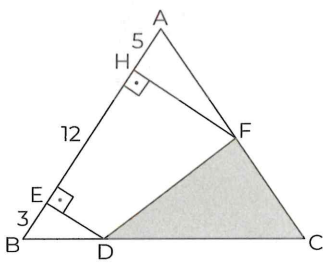
|ED| = 3 br, |BE| = 6 br, |AB| = 9 br, |AC| = 12 br

⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) 37 B) 45 C) 50 D) 51 E) 54

12.



ABC **eşkenar üçgen** (equilateral triangle)

[DE] ⊥ [AB], [FH] ⊥ [AB]

|BE| = 3 br, |AH| = 5 br, |EH| = 12 br

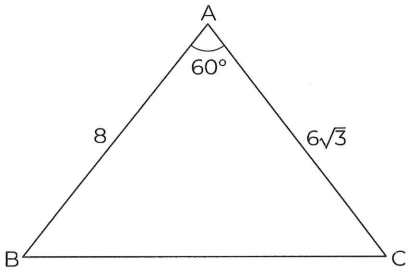
⇒ **Alan** (Area)($\widehat{CDF}$) = ?

A) $18\sqrt{3}$ B) $21\sqrt{3}$ C) $32\sqrt{3}$

D) $35\sqrt{3}$ E) $42\sqrt{3}$

PUZA ACADEMY

13.



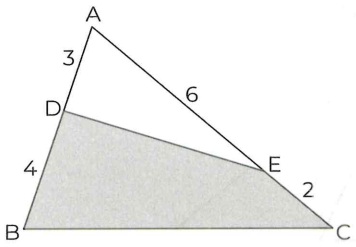
ABC **üçgen** (triangle)

$m(\widehat{BAC}) = 60°$, $|AB| = 8$ br, $|AC| = 6\sqrt{3}$ br

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 12 B) $12\sqrt{3}$ C) 36 D) $32\sqrt{3}$ E) 48

14.



ABC **üçgen** (triangle)

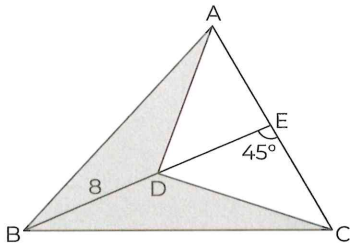
$|EC| = 2$ br, $|AD| = 3$ br, $|BD| = 4$ br, $|AE| = 6$ br

$$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (BCED)}{\textbf{Alan}\ (\text{Area})\ (\widehat{ABC})} = ?$$

A) $\frac{9}{17}$ B) $\frac{9}{19}$ C) $\frac{19}{28}$ D) $\frac{28}{19}$ E) $\frac{9}{38}$

PUZA ACADEMY

15.



ABC **üçgen** (triangle)

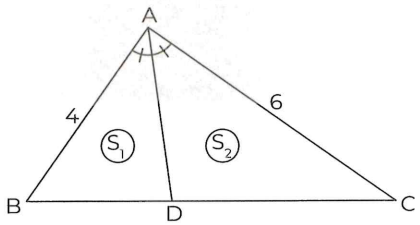
$|BD| = 8$ br, $|AC| = 18$ br, $m(\widehat{BEC}) = 45°$

⇒ **Alan** (Area)(ABCD) = ?

A) $18\sqrt{2}$ B) 36 C) $36\sqrt{2}$

D) 48 E) $48\sqrt{2}$

16.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$, $A(\widehat{ABD}) = S_1$,

$A(\widehat{ADC}) = S_2$, $|AB| = 4$ br, $|AC| = 6$ br

$$\Rightarrow \frac{S_1}{S_2} = ?$$

A) $\frac{1}{2}$ B) $\frac{2}{3}$ C) $\frac{3}{2}$ D) 2 E) 3

IRANINOVIN

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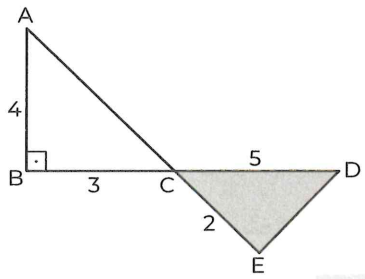
17.



ABC, CDE **üçgen** (triangle)

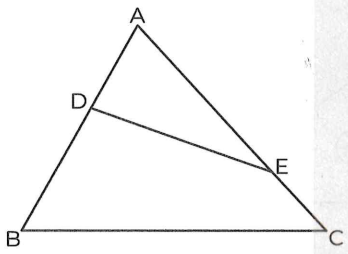
$[AB] \perp [BD]$, $|AB| = 4$ br, $|BC| = 3$ br, $|CD| = 5$ br

$|CE| = 2$ br

⇒ **Alan**(Area) ($\widehat{CDE}$) = ?

A) 3 B) 4 C) 5 D) 10 E) 12

18.



ABC **üçgen** (triangle)

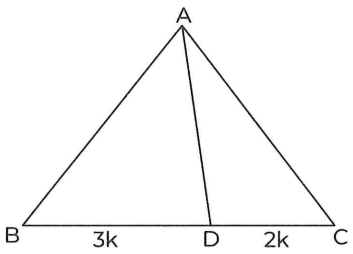
$2|AD| = 3|BD|$, $|AE| = 4|EC|$

Alan(Area)(BCED) = 26 br^2

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 40 B) 50 C) 75 D) 80 E) 100

19.



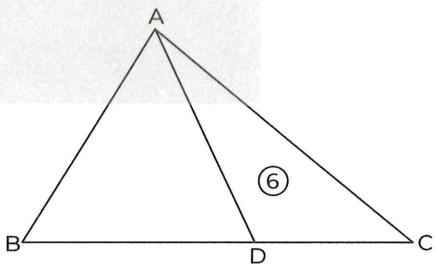
ABC **üçgen** (triangle)

$3|DC| = 2|BD|$, **Alan**(Area) ($\widehat{ABC}$) = 45 br^2

⇒ **Alan**(Area) ($\widehat{ADC}$) = ?

A) 9 B) 18 C) 27 D) 36 E) 40

20.



ABC **üçgen** (triangle)

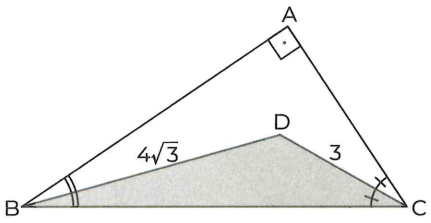
Alan(Area) ($\widehat{ADC}$) = 6 br^2, $2|DC| = |BD|$

⇒ **Alan**(Area) ($\widehat{ABC}$) = ?

A) 24 B) 18 C) 15 D) 12 E) 8

PUZA ACADEMY

21.



BAC **dik üçgen** (right triangle)

[BA] ⊥ [CA]

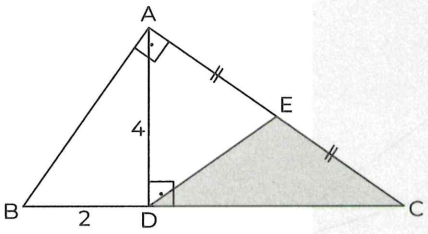
$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{ACD}) = m(\widehat{DCB})$

|BD| = $4\sqrt{3}$ br, |DC| = 3 br

⇒ **Alan**(Area) ($\widehat{BDC}$) = ?

A) 6 B) $3\sqrt{6}$ C) 9 D) $9\sqrt{3}$ E) 18

22.



BAC **dik üçgen** (right triangle)

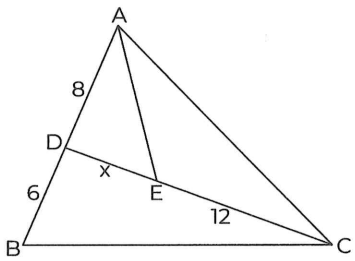
[BA] ⊥ [CA], [AD] ⊥ [BC], |AE| = |EC|

|AD| = 4 br, |BD| = 2 br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 4 B) 6 C) 8 D) 12 E) 16

23.



ABC **üçgen** (triangle), D, E, C **doğrusal** (linear)

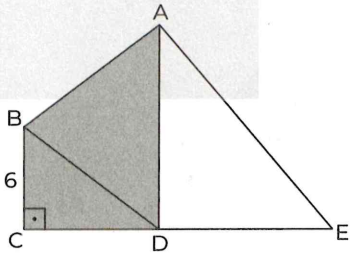
Alan(Area)($\widehat{AEC}$) = **Alan**(Area) ($\widehat{BCD}$)

|DB| = 6 br, |AD| = 8 br, |EC| = 12 br, |DE| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

24.



[BC] ⊥ [CE], [BD] // [AE]

|BC| = 6 br, |CE| = 14 br

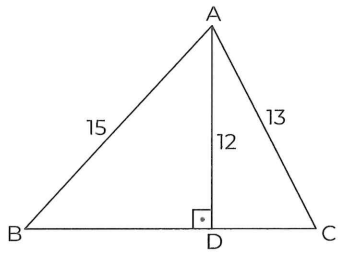
⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 36 C) 42 D) 48 E) 56

PUZA ACADEMY

IRANINOVIN

1.



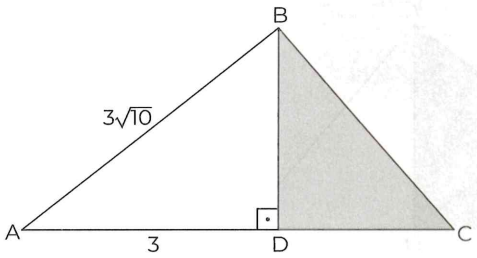
ABC **üçgen** (triangle)

[AD] ⊥ [BC], |AD| = 12 br, |AC| = 13 br, |AB| = 15 br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 96 B) 84 C) 72 D) 70 E) 64

2.



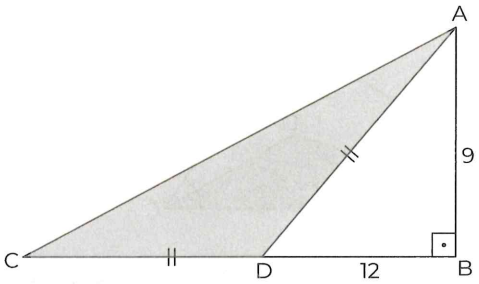
ABC **üçgen** (triangle)

3·|BD| = |AC|, |AD| = 3 br, |AB| = $3\sqrt{10}$ br

⇒ **Alan** (Area)($\widehat{BDC}$) = ?

A) 9 B) $\frac{27}{2}$ C) 24 D) 72 E) 108

3.



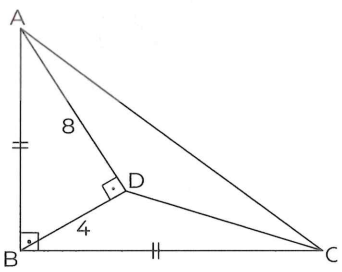
[AB] ⊥ [BC], |AD| = |CD|

|AB| = 9 br, |BD| = 12 br

⇒ **Alan** (Area)($\widehat{ACD}$) = ?

A) $\frac{15}{2}$ B) 15 C) 54 D) $\frac{135}{2}$ E) 225

4.



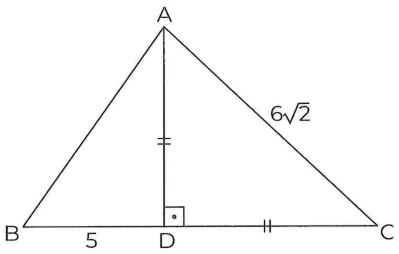
[AB] ⊥ [BC], |AB| = |BC|, |BD| = 4 br, |AD| = 8 br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 8 B) 16 C) 40 D) 80 E) 96

PUZA ACADEMY

5.



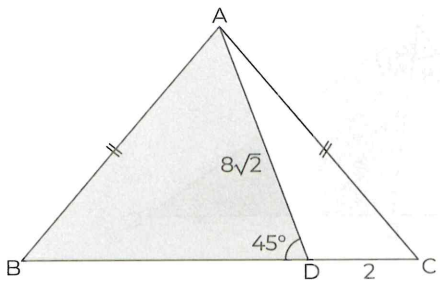
ABC **üçgen** (triangle)

[AD] ⊥ [BC], |AD| = |DC|, |AC| = $6\sqrt{2}$ br

|BD| = 5 br ⇒ **Alan** (Area)(ABC) = ?

A) 45 B) 42 C) 40 D) 33 E) 30

6.



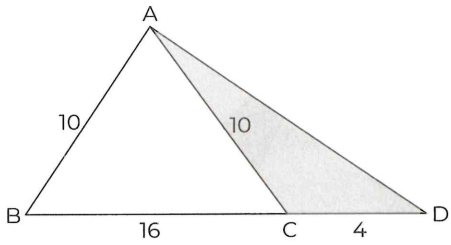
ABC **üçgen** (triangle)

$m(\widehat{ADB}) = 45°$, |AB| = |AC|, |AD| = $8\sqrt{2}$ br

|DC| = 2 br ⇒ **Taralı Alan** (Shaded Area) = ?

A) 80 B) 76 C) 72 D) 70 E) 68

7.



ABC **üçgen** (triangle)

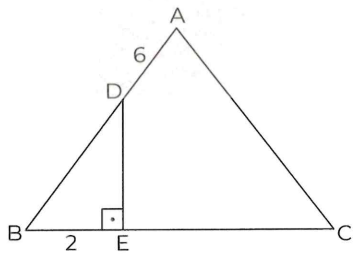
|AB| = |AC| = 10 br, |BC| = 16 br, |CD| = 4 br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 25 B) 24 C) 20 D) 16 E) 12

PUZA ACADEMY

8.



ABC **eşkenar üçgen** (equilateral triangle)

[DE] ⊥ [BC], |BE| = 2 br, |AD| = 6 br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) $4\sqrt{3}$ B) $16\sqrt{3}$ C) $25\sqrt{3}$
D) $32\sqrt{3}$ E) $36\sqrt{3}$

IRANINOVIN

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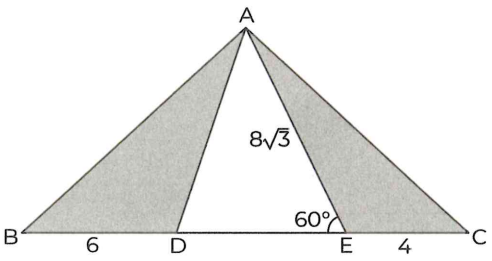
9.



ABC **üçgen** (triangle), $m(\widehat{AEB}) = 60°$

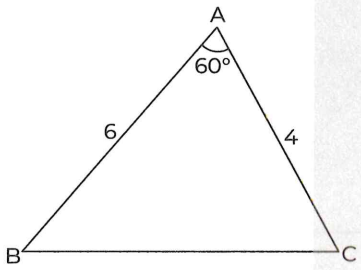
$|EC| = 4$ br, $|BD| = 6$ br, $|AE| = 8\sqrt{3}$ br

⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded areas?

A) 24 B) 36 C) 60 D) 72 E) 84

10.



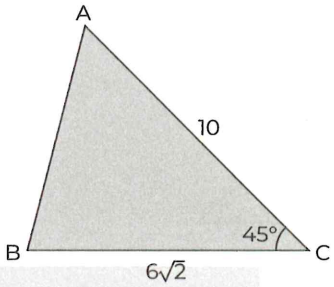
ABC **üçgen** (triangle)

$m(\widehat{BAC}) = 60°$, $|AB| = 6$ br, $|AC| = 4$ br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 6 B) $6\sqrt{3}$ C) 12 D) $12\sqrt{3}$ E) 24

11.



ABC **üçgen** (triangle)

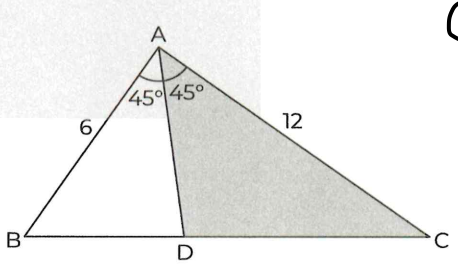
$m(\widehat{ACB}) = 45°$, $|AC| = 10$ br, $|BC| = 6\sqrt{2}$ br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 60 B) 45 C) 40 D) 30 E) 15

PUZA ACADEMY

12.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC}) = 45°$

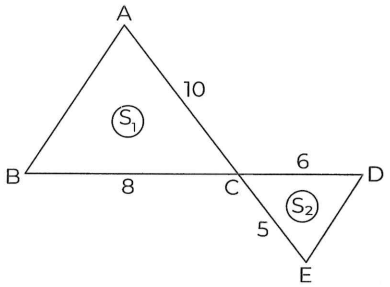
$|AB| = 6$ br, $|AC| = 12$ br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 48 B) 36 C) 32 D) 28 E) 24

Galata 10

13.



ABC, CDE **üçgen** (triangle)

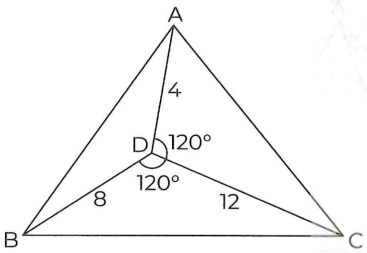
Alan (Area)($\widehat{ABC}$) = S_1, **Alan** (Area)($\widehat{CDE}$) = S_2

|AC| = 10 br, |BC| = 8 br, |CD| = 6 br, |CE| = 5 br

$\Rightarrow \frac{S_1}{S_2} = ?$

A) 5 B) $\frac{4}{3}$ C) $\frac{8}{3}$ D) $\frac{16}{5}$ E) $\frac{1}{5}$

14.



ABC **üçgen** (triangle)

$m(\widehat{ADC}) = 120°$, $m(\widehat{BDC}) = 120°$, |AD| = 4 br

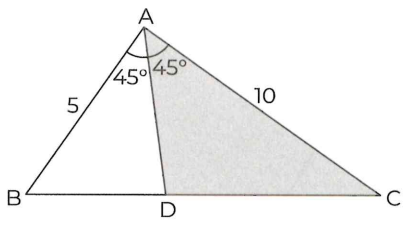
|BD| = 8 br, |DC| = 12 br

$\Rightarrow$ **Alan** (Area) ($\widehat{ABC}$) = ?

A) $10\sqrt{3}$ B) $20\sqrt{3}$ C) $40\sqrt{3}$

D) $44\sqrt{3}$ E) $50\sqrt{3}$

15.



ABC **üçgen** (triangle)

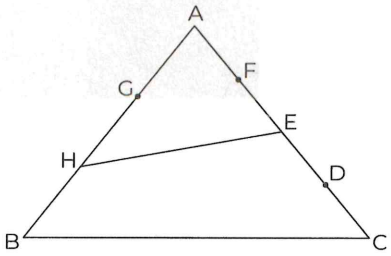
$m(\widehat{BAD}) = m(\widehat{DAC})$, |AB| = 5 br, |AC| = 10 br

$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) $\frac{25}{3}$ B) $\frac{25}{2}$ C) $\frac{50}{3}$ D) 25 E) 50

PUZA ACADEMY

16.



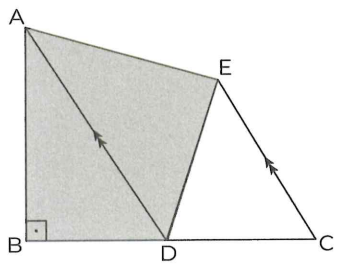
|AG| = |GH| = |HB|, |AF| = |FE| = |ED| = |DC|

$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (\widehat{AHE})}{\textbf{Alan}\ (\text{Area})\ (HBCE)} = ?$

A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{1}{4}$ D) $\frac{2}{5}$ E) $\frac{3}{5}$

IRANINOVIN

17.



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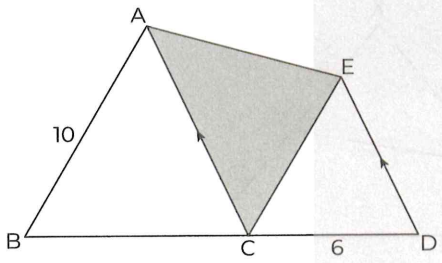
$[AB] \perp [BC]$, $|AD| \,//\, |EC|$, $|AB| = 8$ br,

$|BC| = 12$ br

$\Rightarrow$ **Alan** (Area) (ABDE) = ?

A) 24 B) 36 C) 48 D) 72 E) 96

18.



ABC, CED **üçgen** (triangle)

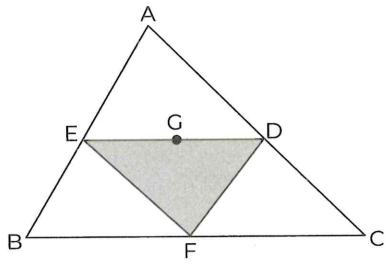
B, C, D **doğrusal** (linear)

$m(\widehat{ABC}) = 60°$, $|CD| = 6$ br, $|AB| = 10$ br

$\Rightarrow$ **Alan** (Area) $(\widehat{ACE})$ = ?

A) 15 B) $15\sqrt{3}$ C) 25 D) $30\sqrt{3}$ E) 60

19.



ABC **üçgen** (triangle)

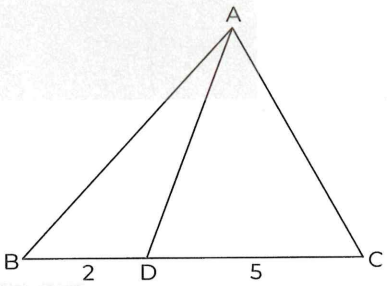
G ağırlık merkezi (center of gravity)

$|ED| \,//\, |BC|$, **Alan** (Area) $(\widehat{ABC}) = 45$ br^2

$\Rightarrow$ **Alan** (Area) $(\widehat{EDF})$ = ?

A) 5 B) 8 C) 10 D) 12 E) 15

20.



ABC **üçgen** (triangle)

$|BD| = 2$ br, $|DC| = 5$ br

$\Rightarrow \dfrac{\textbf{Alan}\,(\text{Area})\,(\widehat{ABD})}{\textbf{Alan}\,(\text{Area})\,(\widehat{ABC})}$ = ?

A) $\frac{2}{7}$ B) $\frac{1}{7}$ C) $\frac{3}{7}$ D) $\frac{7}{3}$ E) $\frac{10}{3}$

PUZA ACADEMY

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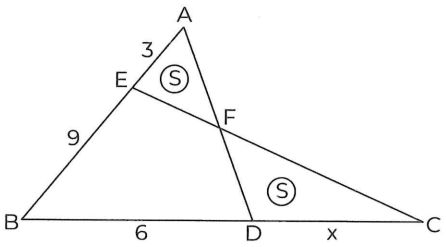
21.



ABD, BCE **üçgen** (triangle)

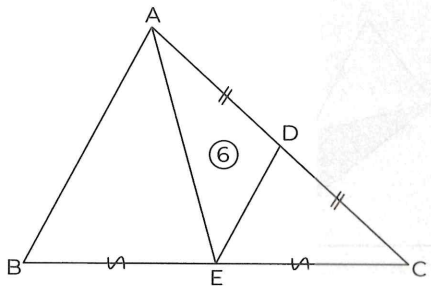
Alan (Area)($\widehat{AEF}$) = **Alan** (Area)($\widehat{FDC}$) = S

|AE| = 3 br, |BE| = 9 br, |BD| = 6 br, |DC| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

22.



ABC **üçgen** (triangle)

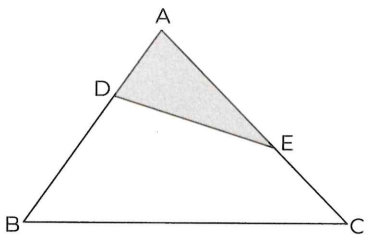
|AD| = |DC|, |BE| = |EC|

Alan (Area)($\widehat{ADE}$) = 6 br^2

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 8 B) 10 C) 16 D) 20 E) 24

23.



ABC **üçgen** (triangle)

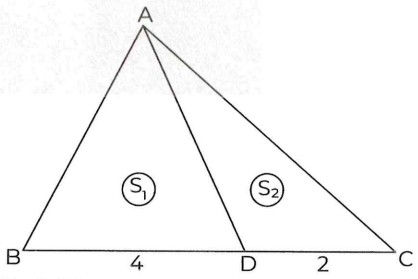
Alan (Area)($\widehat{ABC}$) = 36 br^2, 3|AD| = |BD|

2|EC| = |AE|

⇒ **Alan** (Area)($\widehat{ADE}$) = ?

A) 3 B) 4 C) 6 D) 9 E) 12

24.



ABC **üçgen** (triangle)

|BD| = 4 br, |DC| = 2 br, A($\widehat{ABD}$) = S_1

Alan (Area)($\widehat{ADC}$) = S_2

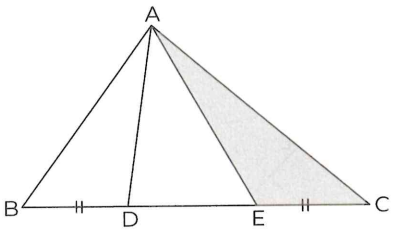
⇒ $\frac{S_1}{S_2}$ = ?

A) 1 B) 2 C) 3 D) 4 E) 5

PUZA ACADEMY

IRANINOVIN

25.



ABC **üçgen** (triangle)

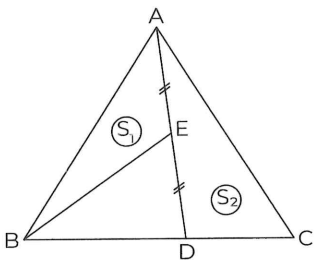
$2|DE| = |BC|$, $|BD| = |EC|$,

Alan (Area)$(\widehat{ABC}) = 64$ br^2

$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) 32 B) 28 C) 24 D) 16 E) 8

27.



ABC **üçgen** (triangle)

$|AE| = |ED|$, $3|DC| = 2|BD|$

Alan (Area)$(\widehat{ABE}) = S_1$, **Alan** (Area)$(\widehat{ADC}) = S_2$

$\Rightarrow \dfrac{S_1}{S_2} = ?$

A) 2 B) $\frac{3}{4}$ C) 1 D) $\frac{1}{3}$ E) $\frac{1}{2}$

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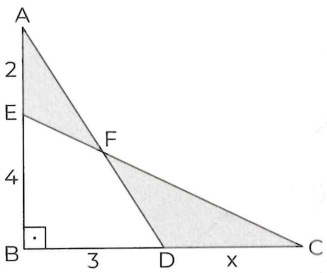
PUZA ACADEMY

26.



ABD, EBC **dik üçgen** (right triangle)

$[AB] \perp [BC]$,

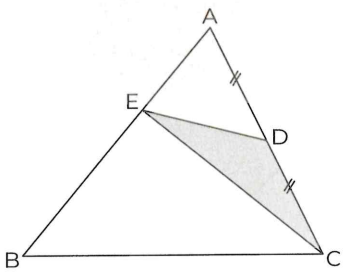
Alan (Area)$(\widehat{AEF})$ = **Alan** (Area)$(\widehat{DFC})$

$|AE| = 2$ br, $|BD| = 3$ br, $|EB| = 4$ br, $|DC| = x$

$\Rightarrow x = ?$

A) $\frac{1}{2}$ B) 1 C) $\frac{3}{2}$ D) 2 E) $\frac{5}{2}$

28.



ABC **üçgen** (triangle)

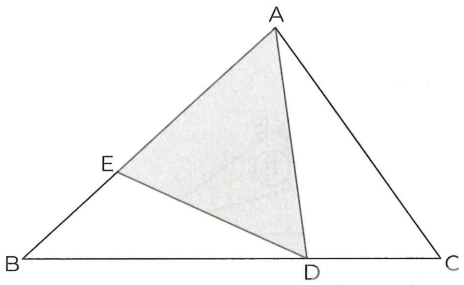
Taralı Alan (Shaded Area) = 4 br^2, $|AD| = |DC|$

$2|AE| = |BE|$

$\Rightarrow$ **Alan** (Area)$(\widehat{ABC}) = ?$

A) 32 B) 24 C) 20 D) 16 E) 12

29.



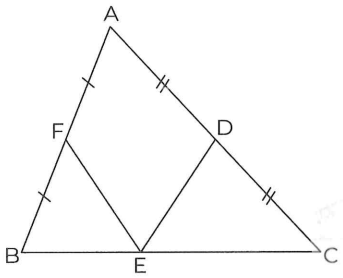
ABC **üçgen** (triangle)

$2|AE| = 3|EB|$, $3|DC| = |BD|$

$\Rightarrow \dfrac{\textbf{Alan}\,(\text{Area})\,(\widehat{AED})}{\textbf{Alan}\,(\text{Area})\,(\widehat{ABC})} = ?$

A) $\frac{1}{7}$ B) $\frac{2}{7}$ C) $\frac{9}{20}$ D) $\frac{6}{25}$ E) $\frac{1}{5}$

30.



ABC **üçgen** (triangle)

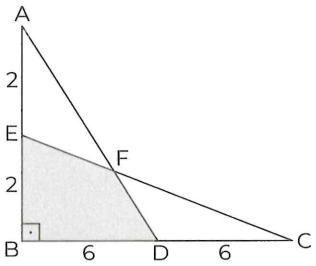
$|AD| = |DC|$, $|AF| = |FB|$

$\Rightarrow \dfrac{\textbf{Alan}\,(\text{Area})\,(\widehat{ABC})}{\textbf{Alan}\,(\text{Area})\,(AFED)} = ?$

A) $\frac{1}{2}$ B) 1 C) 2 D) 3 E) 4

PUZA ACADEMY

31.



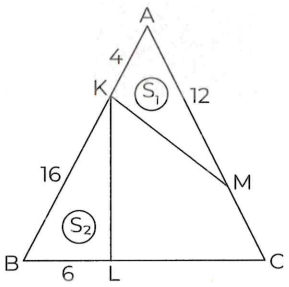
ABD, EBC **dik üçgen** (right triangle)

$[AB] \perp [BC]$, $|AE| = |EB| = 2$ br, $|BD| = |DC| = 6$ br

$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) 36 B) 30 C) 24 D) 16 E) 8

32.



ABC **üçgen** (triangle)

$|AC| = |BC|$, **Alan** (Area)$(\widehat{AKM}) = S_1$

Alan (Area)$(\widehat{KBL}) = S_2$

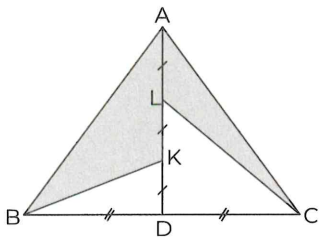
$|AK| = 4$ br, $|KB| = 16$ br, $|MA| = 12$ br, $|BL| = 6$ br

$\Rightarrow \dfrac{S_1}{S_2} = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 4

IRANINOVIN

33.



ABC **üçgen** (triangle)

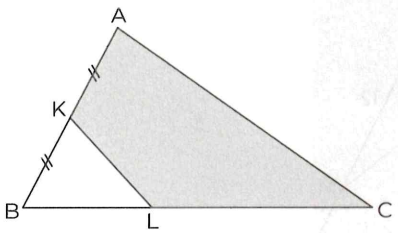
Taralı Alan (Shaded Area) = 24 br^2

$|AL| = |LK| = |KD|$, $|BD| = |DC|$

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 24 B) 28 C) 32 D) 36 E) 48

34.



ABC **üçgen** (triangle)

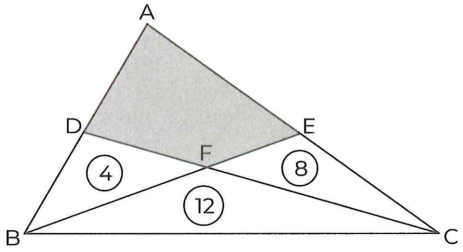
Alan (Area)($\widehat{ABC}$) = 200 br^2

$|AK| = |KB|$, $2|LC| = 3|BL|$

⇒ **Taralı Alan** (Shaded Area) = ?

A) 80 B) 100 C) 120 D) 140 E) 160

35.



ABC **üçgen** (triangle)

Alan (Area) ($\widehat{DBF}$) = 4 br^2

Alan (Area) ($\widehat{FEC}$) = 8 br^2

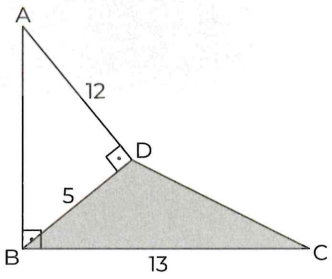
Alan (Area) ($\widehat{BFC}$) = 12 br^2

⇒ **Alan** (Area) (ADFE) = ?

A) 36 B) $\frac{32}{5}$ C) $\frac{32}{7}$ D) $\frac{72}{7}$ E) 8

PUZA ACADEMY

36.



ABD, BDC **üçgen** (triangle)

$[AD] \perp [DC]$, $[AB] \perp [BC]$

$|BD| = 5$ br, $|AD| = 12$ br, $|BC| = 13$ br

⇒ **Alan** (Area) ($\widehat{BDC}$) = ?

A) 12 B) 23 C) $\frac{25}{2}$ D) 25 E) $\frac{27}{4}$

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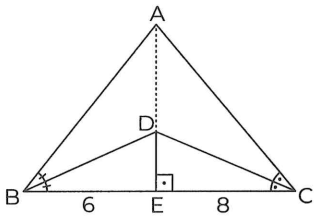
IRANINOVIN

1.



ABC **üçgen** (triangle)

D, iç teğet çemberin merkezi

center of tangent circle

$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{ACD}) = m(\widehat{DCB})$

$|BE| = 6$ br, $|EC| = 8$ br, $|AB| = 13$ br

$\Rightarrow \dfrac{\textbf{Alan}\ (\text{Area})\ (\widehat{BDE})}{\textbf{Alan}\ (\text{Area})\ (\widehat{ADC})} = ?$

A) $\frac{3}{4}$ B) $\frac{2}{5}$ C) $\frac{3}{5}$ D) $\frac{4}{7}$ E) $\frac{6}{5}$

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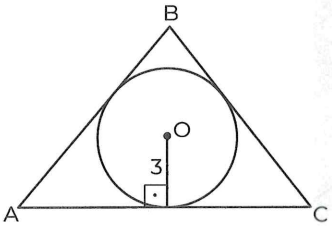
PUZA ACADEMY

2.



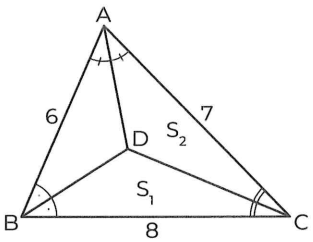
ABC **üçgen** (triangle)

Alan (Area)$(\widehat{ABC}) = 27$ br^2

$\Rightarrow$ **Çevre** (Circumference)$(\widehat{ABC}) = ?$

A) 9 B) 12 C) 18 D) 20 E) 36

3.



ABC **üçgen** (triangle) $m(\widehat{BAD}) = m(\widehat{DAC})$,

$m(\widehat{ACD}) = m(\widehat{DCB})$, $m(\widehat{CBD}) = m(\widehat{DBA})$

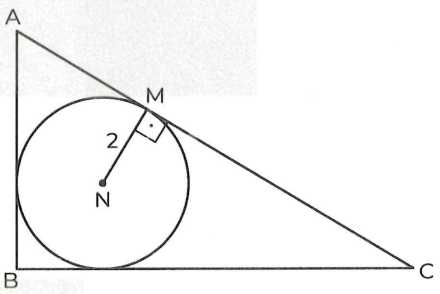
$|AB| = 6$ br, $|AC| = 7$ br, $|BC| = 8$ br

Alan(Area) $(\widehat{BCD}) = S_1$, **Alan**(Area)$(\widehat{ADC}) = S_2$

$\Rightarrow \dfrac{S_1}{S_2} = ?$

A) $\frac{3}{4}$ B) $\frac{4}{3}$ C) $\frac{7}{8}$ D) $\frac{8}{7}$ E) 1

4.



ABC **üçgen** (triangle)

Çevre (Perimeter)$(\widehat{ABC}) = 24$ br

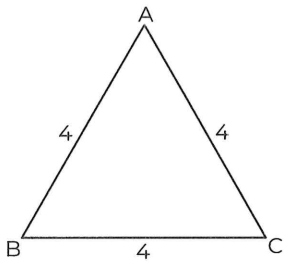
$[NM] \perp [AC]$, $|NM| = 2$ br

$\Rightarrow$ **Alan** (Area)$(\widehat{ABC}) = ?$

A) 24 B) 28 C) 32 D) 36 E) 48

IRANINOVIN

5.



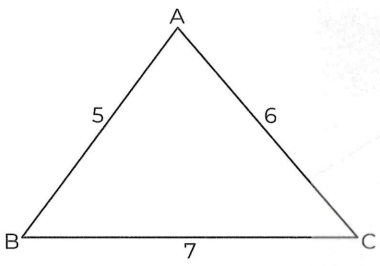
ABC **eşkenar üçgen** (equilateral triangle)

|AB| = |AC| = |BC| = 4 br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) $2\sqrt{3}$ B) 4 C) $4\sqrt{3}$ D) 8 E) 12

6.



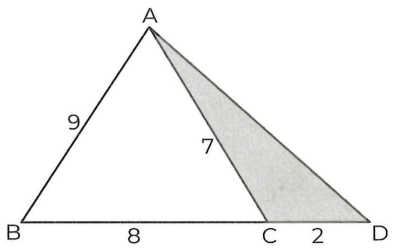
ABC **üçgen** (triangle)

|AB| = 5 br, |AC| = 6 br, |BC| = 7 br

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) $12\sqrt{6}$ B) 12 C) $8\sqrt{6}$ D) 8 E) $6\sqrt{6}$

7.



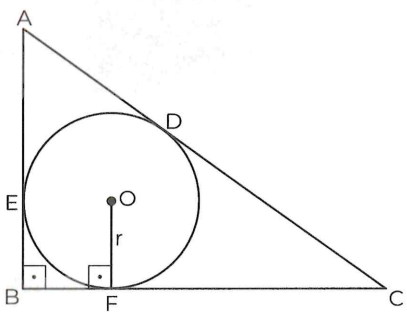
ABD **üçgen** (triangle)

|CD| = 2 br, |AC| = 7 br, |BC| = 8 br, |AB| = 9 br

⇒ **Alan** (Area)($\widehat{ACD}$) = ?

A) $3\sqrt{5}$ B) $4\sqrt{5}$ C) $5\sqrt{5}$ D) $6\sqrt{5}$ E) $7\sqrt{5}$

8.



ABC **dik üçgen** (right triangle)

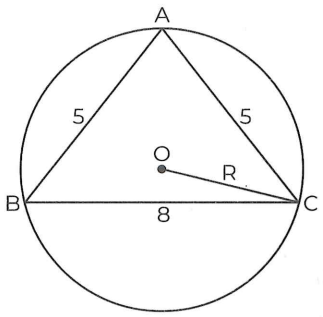
|AB| = 6 br, |BC| = 8 br, |OF| = r

⇒ r = ?

A) 1 B) 2 C) 3 D) 4 E) 6

PUZA ACADEMY

9.



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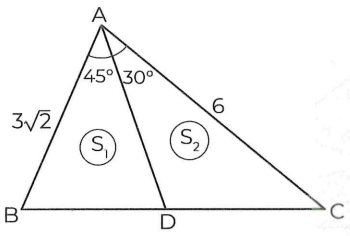
ABC **üçgen** (triangle)

$|AB| = |AC| = 5$ br, $|BC| = 8$ br, $|OC| = R$

$\Rightarrow R = ?$

A) 3 B) $\frac{25}{6}$ C) $\frac{7}{2}$ D) $\frac{10}{3}$ E) 4

10.



ABC **üçgen** (triangle)

$m(\widehat{CAD}) = 30°$, $m(\widehat{DAB}) = 45°$

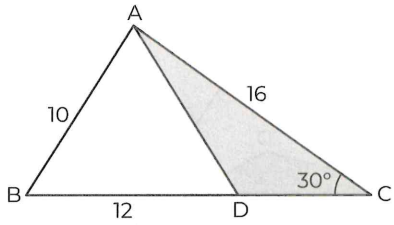
$|AB| = 3\sqrt{2}$ br, $|AC| = 6$ br

Alan (Area)$(\widehat{ABD}) = S_1$, **Alan** (Area)$(\widehat{ADC}) = S_2$

$\Rightarrow \frac{S_1}{S_2} = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) $\frac{3}{2}$ E) 2

11.



ABC **üçgen** (triangle)

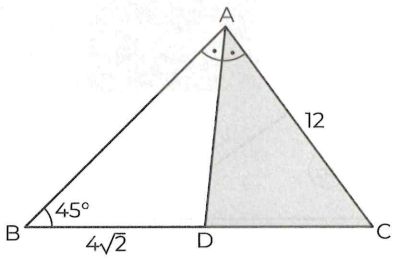
$m(\widehat{ACB}) = 30°$, $|AC| = 16$ br, $|BD| = 12$ br

$|AB| = 10$ br

$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) $18\sqrt{3} - 6$ B) $32\sqrt{3} - 24$ C) $16\sqrt{3} - 8$
D) $16\sqrt{3} - 12$ E) $16\sqrt{3} - 4$

12.



$m(\widehat{BAD}) = m(\widehat{DAC})$, $m(\widehat{ABC}) = 45°$

$|AC| = 12$ br, $|BD| = 4\sqrt{2}$ br

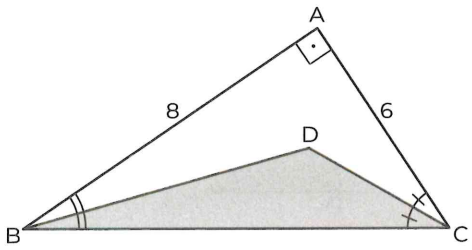
$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) 96 B) 72 C) 54 D) 48 E) 24

PUZA ACADEMY

IRANINOVIN

13.



BAC **dik üçgen** (right triangle)

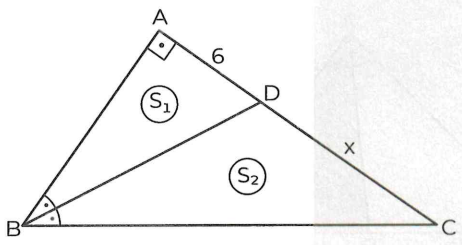
$[BA] \perp [CA]$, $m(\widehat{ABD}) = m(\widehat{DBC})$

$m(\widehat{ACD}) = m(\widehat{DCB})$, $|AB| = 8$ br, $|AC| = 6$ br

⇒ **Alan** (Area)$(\widehat{BDC}) = ?$

A) $6\sqrt{3}$ B) 10 C) $12\sqrt{3}$ D) 18 E) $18\sqrt{3}$

14.



BAC **dik üçgen** (right triangle)

$[BA] \perp [AC]$, $m(\widehat{ABD}) = m(\widehat{DBC})$

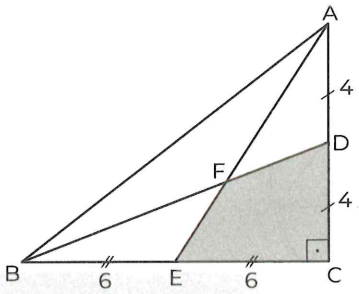
Alan (Area)$(\widehat{ABD}) = S_1$, **Alan** (Area)$(\widehat{DBC}) = S_2$

$S_2 - S_1 = 24$ br^2, $|AD| = 6$ br, $|DC| = x$

⇒ $x = ?$

A) 15 B) 10 C) 8 D) 6 E) 4

15.



ACB **dik üçgen** (right triangle)

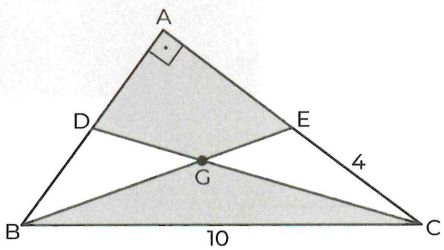
$|AD| = |DC| = 4$ br, $|BE| = |EC| = 6$ br

⇒ **Alan** (Area)(DFEC) = ?

A) 12 B) 14 C) 16 D) 18 E) 20

PUZA ACADEMY

16.



BAC **dik üçgen** (right triangle)

G, ağırlık merkezi (Center of gravity)

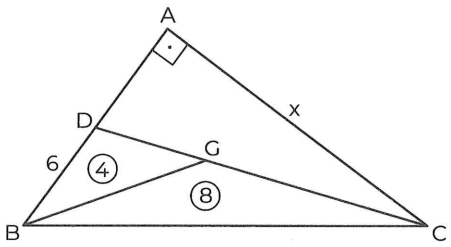
$[BA] \perp [AC]$, $|EC| = 4$ br, $|BC| = 10$ br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 16 B) 12 C) 10 D) 8 E) 6

IRANINOVIN

17.



BAC **dik üçgen** (right triangle)

G, ağırlık merkezi (Center of gravity)

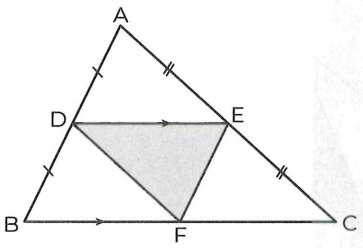
[BA] ⊥ [AC], **Alan** (Area)($\widehat{BGC}$) = 8 br^2

|DB| = 6 br, |AC| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

18.



ABC **üçgen** (triangle)

[DE] // [BC], |AE| = |EC|, |AD| = |DB|

Taralı Alan (Shaded Area) = 12 br^2

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 24 B) 36 C) 48 D) 60 E) 64

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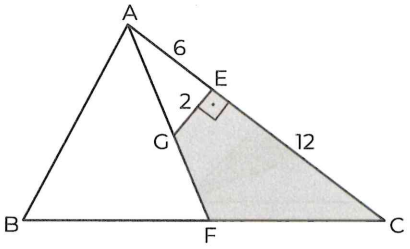
PUZA ACADEMY

19.



ABC **üçgen** (triangle)

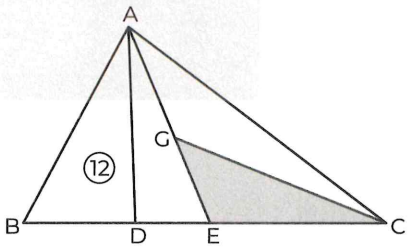
G, **ağırlık merkezi** (Center of gravity)

[GE] ⊥ [AC], |AE| = 6 br, |GE| = 2 br, |EC| = 12 br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 21 B) 19 C) 18 D) 16 E) 14

20.



ABC **üçgen** (triangle)

G, ABC **üçgeninin ağırlık merkezi**

Center of gravity

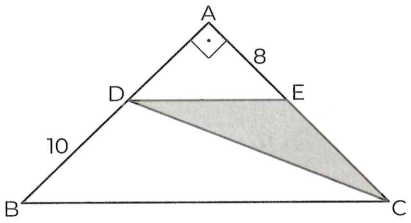
2|DE| = |BD|, **Alan** (Area)($\widehat{ABD}$) = 12 br^2

⇒ **Taralı Alan** (Shaded Area) = ?

A) 6 B) 8 C) 12 D) 16 E) 24

IRANINOVIN

21.



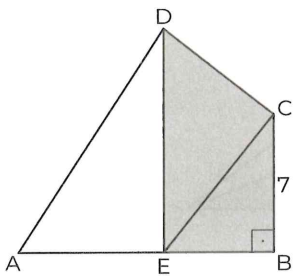
BAC **dik üçgen** (right triangle)

[DE] // [BC], |AE| = 8 br, |BD| = 10 br

⇒ **Alan** (Area)($\widehat{DEC}$) = ?

A) 30 B) 36 C) 40 D) 45 E) 50

22.



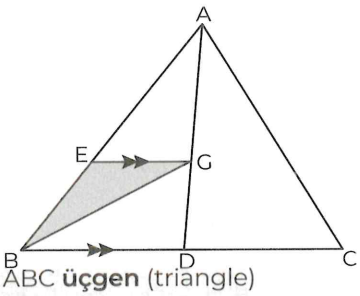
ABCD **dörtgen** (quadrilateral)

[CB] ⊥ [BA], [AD] // [EC], |BC| = 7 br, |AB| = 8 br

⇒ **Alan** (Area)(BCDE) = ?

A) 21 B) 24 C) 28 D) 35 E) 42

23.



ABC **üçgen** (triangle)

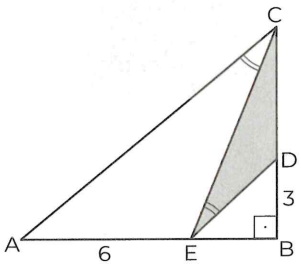
G, **ağırlık merkezi** (center of gravity)

[EG] // [BC], **Alan** (Area) ($\widehat{EGB}$) = 4 br^2

⇒ **Alan** (Area)($\widehat{ABD}$) = ?

A) 6 B) 12 C) 18 D) 24 E) 36

24.



ABC **dik üçgen** (right triangle)

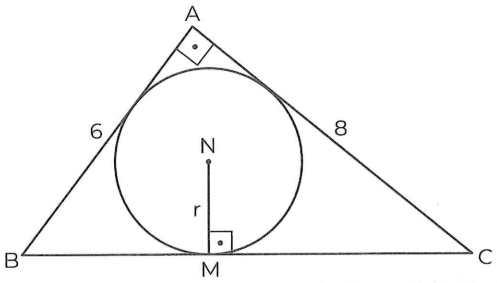
$m(\widehat{DEC}) = m(\widehat{ECA})$, |DB| = 3 br, |AE| = 6 br

⇒ **Alan** (Area)($\widehat{CED}$) = ?

A) 9 B) 12 C) 16 D) 18 E) 24

PUZA ACADEMY

1.



BAC **dik üçgen** (right triangle)

[AB] ⊥ [AC], [NM] ⊥ [BC], |AB| = 6 br

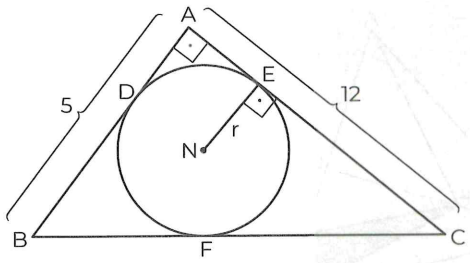
|AC| = 8 br, |NM| = r

⇒ r = ?

A) $\sqrt{2}$ B) 2 C) 3 D) $2\sqrt{4}$ E) 4

@galata1010

2.



BAC **dik üçgen** (right triangle)

[BA] ⊥ [CA], [NE] ⊥ [AC], |AB| = 5 br, |AC| = 12 br

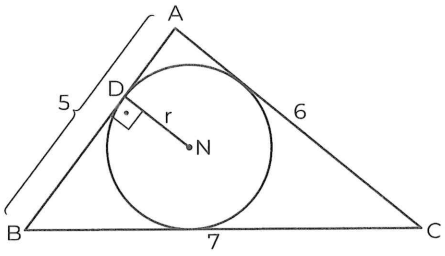
|NE| = r

⇒ r = ?

A) 1 B) $\sqrt{2}$ C) 2 D) $2\sqrt{2}$ E) 4

PUZA ACADEMY

3.



ABC **üçgen** (triangle)

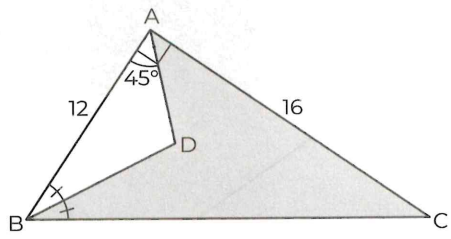
[ND] ⊥ [AB], |AB| = 5 br, |AC| = 6 br, |BC| = 7 br

|DN| = r

⇒ r = ?

A) $\frac{\sqrt{6}}{2}$ B) $\sqrt{6}$ C) $\frac{2\sqrt{6}}{3}$ D) $\frac{\sqrt{6}}{3}$ E) $2\sqrt{6}$

4.



ABC **üçgen** (triangle)

[BA] ⊥ [AC], $m(\widehat{ABD}) = m(\widehat{DBC})$

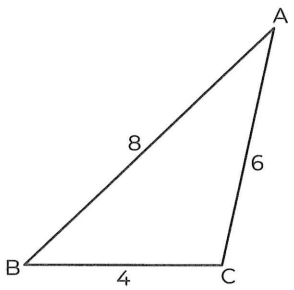
$m(\widehat{BAD}) = 45°$, |AB| = 12 br, |AC| = 16 br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 18 B) 24 C) 36 D) 54 E) 72

IRANINOVIN

5.



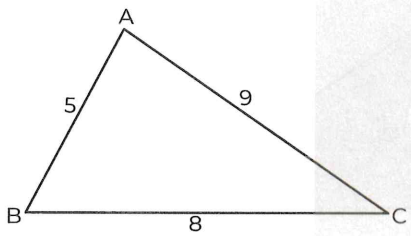
ABC **üçgen** (triangle)

|AB| = 8 br, |AC| = 6, |BC| = 4 br

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) $\sqrt{6}$ B) $2\sqrt{6}$ C) $3\sqrt{15}$ D) $4\sqrt{6}$ E) $8\sqrt{2}$

6.



ABC **üçgen** (triangle)

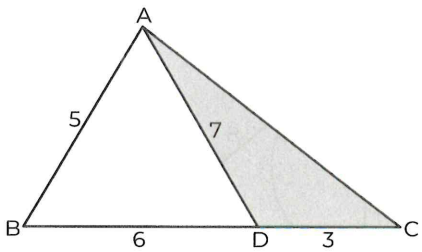
|AB| = 5 br, |BC| = 8 br, |AC| = 9 br

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) $6\sqrt{5}$ B) $6\sqrt{11}$ C) $7\sqrt{7}$

D) $6\sqrt{6}$ E) $6\sqrt{14}$

7.



ABC **üçgen** (triangle)

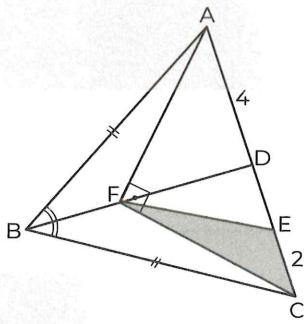
|AB| = 5 br, |BD| = 6 br, |AD| = 7 br, |DC| = 3 br

⇒ **Alan** (Area) ($\widehat{ADC}$) = ?

A) $2\sqrt{6}$ B) $3\sqrt{6}$ C) $4\sqrt{6}$

D) 6 E) 12

8.



ABC **üçgen** (triangle)

$m(\widehat{ABD}) = m(\widehat{DBC})$, [AF] ⊥ [FC], |EC| = 2 br

|AD| = 4 br

⇒ **Alan** (Area) ($\widehat{FEC}$) = ?

A) 2 B) $2\sqrt{2}$ C) $2\sqrt{3}$ D) 4 E) $4\sqrt{2}$

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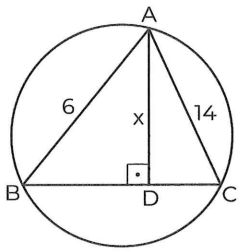
9.



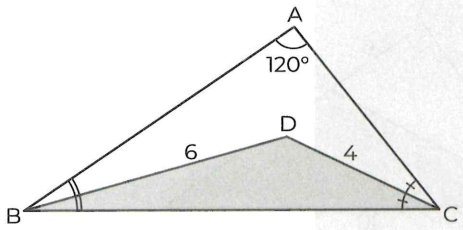
ABC **üçgen** (triangle)

$[AD] \perp [BC]$, $|AB| = 6$ br, $|AC| = 14$ br, $R = 7$ br

$\Rightarrow |AD| = x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

10.



ABC **üçgen** (triangle)

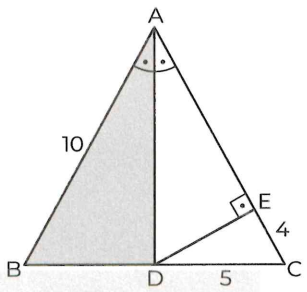
$m(\widehat{ABD}) = m(\widehat{DBC})$, $m(\widehat{ACD}) = m(\widehat{DCB})$

$m(\widehat{BAC}) = 120°$, $|BD| = 6$ br, $|DC| = 4$ br

$\Rightarrow$ **Alan** (Area) $(\widehat{BDC}) = ?$

A) 4 B) $4\sqrt{5}$ C) 6 D) $6\sqrt{3}$ E) 8

11.



ABC **üçgen** (triangle)

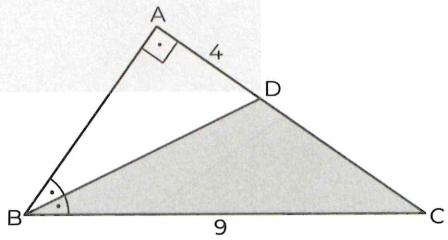
$m(\widehat{BAD}) = m(\widehat{DAC})$, $[DE] \perp [AC]$

$|AB| = 10$ br, $|DC| = 5$ br, $|EC| = 4$ br

$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) 30 B) 24 C) 20 D) 18 E) 15

12.



BAC **dik üçgen** (right triangle)

$m(\widehat{ABD}) = m(\widehat{DBC})$, $[BA] \perp [AC]$

$|AD| = 4$ br, $|BC| = 9$ br

$\Rightarrow$ **Taralı Alan** (Shaded Area) = ?

A) 36 B) 24 C) 18 D) 15 E) 12

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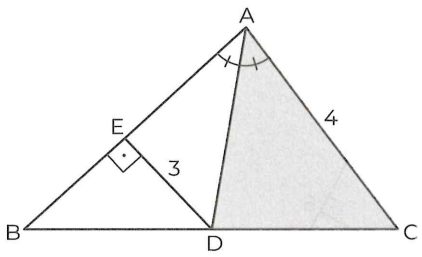
IRANINOVIN

13.



ABC **üçgen** (triangle)

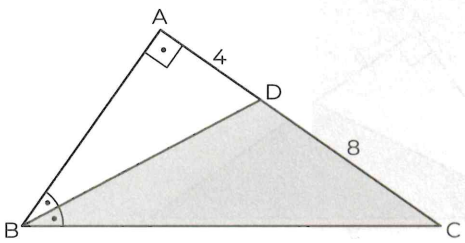
$m(\widehat{BAD}) = m(\widehat{DAC})$, $[ED] \perp [AB]$

$|ED| = 3$ br, $|AC| = 4$ br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 12 B) 10 C) 8 D) 6 E) 3

14.



BAC **dik üçgen** (right triangle)

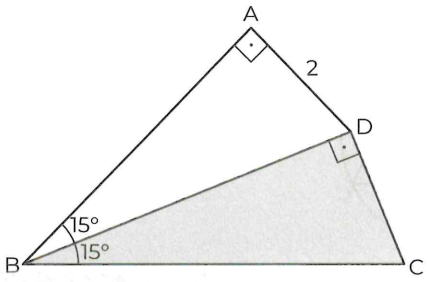
$[BA] \perp [AC]$, $m(\widehat{ABD}) = m(\widehat{DBC})$

$|AD| = 4$ br, $|DC| = 8$ br

⇒ **Alan** (Area) ($\widehat{BDC}$) = ?

A) $24\sqrt{3}$ B) 24 C) $16\sqrt{3}$ D) 18 E) 16

15.



$m(\widehat{ABD}) = m(\widehat{DBC}) = 15°$

$[BA] \perp [DA]$, $[BD] \perp [DC]$, $|AD| = 2$ br

⇒ **Alan** (Area) ($\widehat{BDC}$) = ?

A) 16 B) 12 C) 8 D) 4 E) 2

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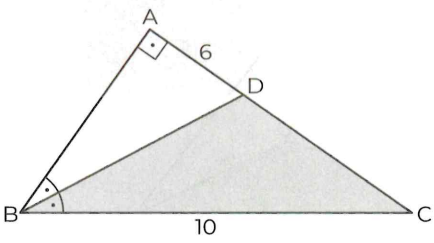
16.



BAC **dik üçgen** (right triangle)

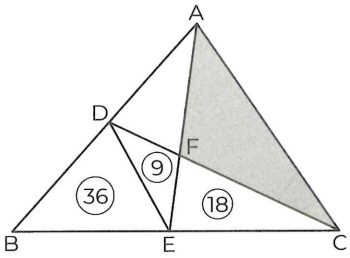
$m(\widehat{ABD}) = m(\widehat{DBC})$, $[BA] \perp [AC]$

$|AD| = 6$ br, $|BC| = 10$ br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 60 B) 48 C) 40 D) 32 E) 30

17.



ABC **üçgen** (triangle), $[DC] \cap [AE] = \{F\}$

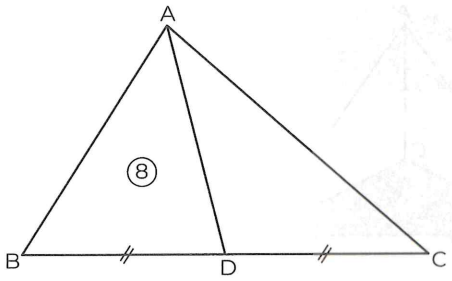
Alan (Area) ($\widehat{DEF}$) = 9 br^2,
Alan (Area) ($\widehat{FEC}$) = 18 br^2,

Alan (Area) ($\widehat{BDE}$) = 36 br

⇒ **Alan** (Area) ($\widehat{AFC}$) = ?

A) $\frac{27}{5}$ B) $\frac{63}{5}$ C) 15 D) $\frac{126}{5}$ E) 63

18.



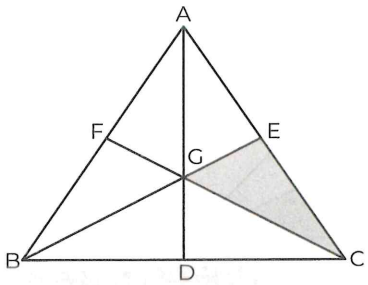
ABC **üçgen** (triangle)

|BD| = |DC|, **Alan** (Area) ($\widehat{ABD}$) = 8 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 24 B) 18 C) 16 D) 14 E) 80

19.



ABC **üçgen** (triangle)

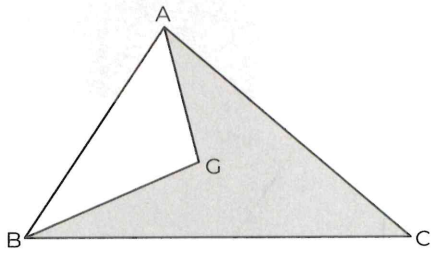
G, ağırlık merkezi (Center of gravity)

Taralı Alan (Shaded Area) = 12 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 72 B) 68 C) 64 D) 60 E) 48

20.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

Taralı Alan (Shaded Area) = 16 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 16 B) 20 C) 24 D) 28 E) 32

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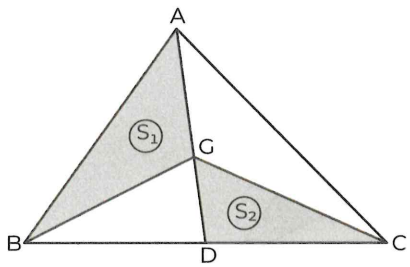
21.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

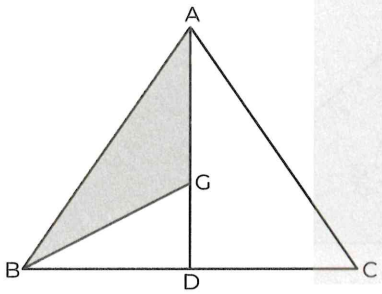
Alan (Area) ($\widehat{ABG}$) = S_1

Alan (Area) ($\widehat{GDC}$) = S_2

⇒ $\frac{S_1}{S_2}$ = ?

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 3

22.



ABC **üçgen** (triangle)

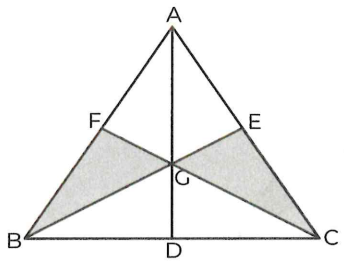
G, ağırlık merkezi (Center of gravity)

Alan (Area) ($\widehat{ADC}$) = 15 br^2

⇒ **Taralı Alan** (Shaded Area) = ?

A) 5 B) 10 C) 15 D) 20 E) 24

23.



ABC **üçgen** (triangle)

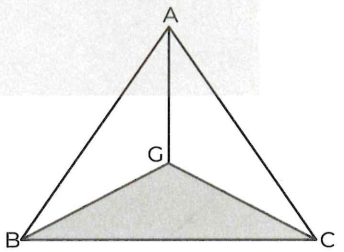
G, ağırlık merkezi (Center of gravity)

Alan (Area) ($\widehat{ABC}$) = 30 br^2

⇒ **Taralı Alan** (Shaded Area) = ?

A) 5 B) 10 C) 15 D) 20 E) 30

24.



ABC **üçgen** (triangle)

G, ağırlık merkezi (Center of gravity)

Taralı Alan (Shaded Area) = 6 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 6 B) 18 C) 20 D) 24 E) 30

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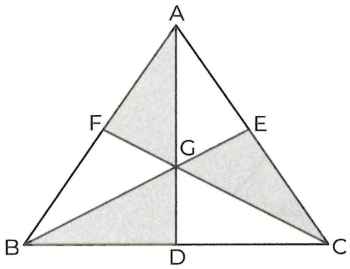
25.



ABC **üçgen** (triangle)

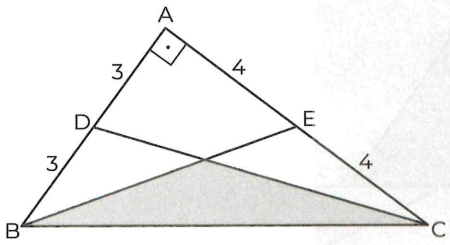
G, ağırlık merkezi (Center of gravity)

Taralı Alan (Shaded Area) = 9 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 9 B) 12 C) 15 D) 18 E) 27

26.



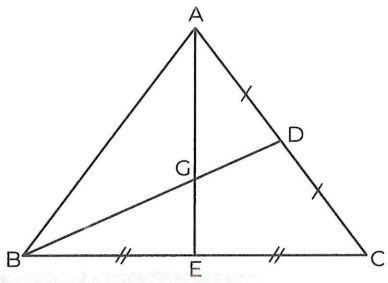
BAC **dik üçgen** (right triangle)

[BA] ⊥ [CA], |AD| = |BD| = 3 br, |AE| = |EC| = 4 br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 4 B) 8 C) 12 D) 16 E) 20

27.



ABC **üçgen** (triangle)

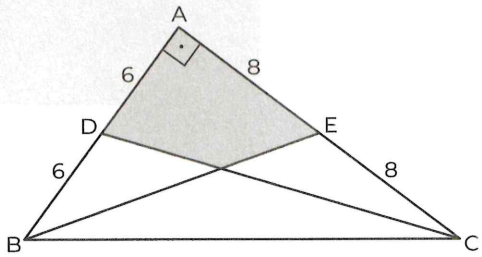
|AD| = |DC|, |BE| = |EC|

Alan (Area) ($\widehat{AGD}$) = 8 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 12 B) 18 C) 24 D) 36 E) 48

28.



BAC **dik üçgen** (right triangle)

[BA] ⊥ [CA], |AD| = |DB| = 6 br, |AE| = |EC| = 8 br

⇒ **Taralı Alan** (Shaded Area) = ?

A) 8 B) 16 C) 24 D) 32 E) 36

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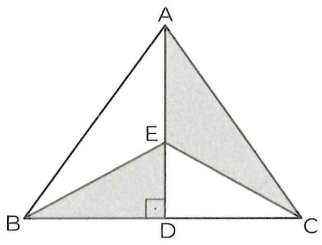
29.



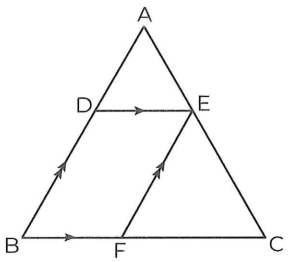
ABC **üçgen** (triangle)

$[AD] \perp [BC]$, $|AB| = |AC|$, $|AD| = 6$ br, $|BC| = 12$ br

⇒ **Taralı alanlar toplamı kaç br² dir?**
What is the area of shaded region?

A) 6 B) 12 C) 18 D) 24 E) 36

30.



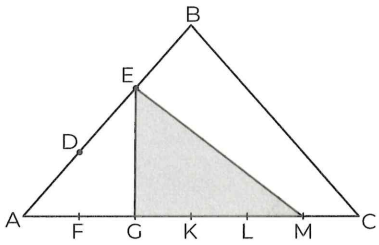
ABC **üçgen** (triangle)

$[DE] // [BC]$, $[AB] // [EF]$, $5|AD| = 2|AB|$

$$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (DEFB)}{\textbf{Alan}\ (\text{Area})\ (EFC)} = ?$$

A) $\frac{2}{5}$ B) $\frac{3}{8}$ C) $\frac{4}{3}$ D) $\frac{3}{4}$ E) 1

31.



ABC **üçgen** (triangle)

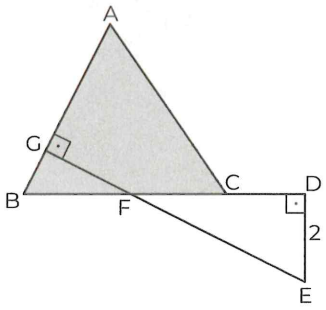
$|AD| = |DE| = |EB|$

$|AF| = FG| = |GK| = |KL| = |LM| = |MC|$

$$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (\widehat{EGM})}{\textbf{Alan}\ (\text{Area})\ (\widehat{ABC})} = ?$$

A) $\frac{3}{8}$ B) $\frac{1}{5}$ C) $\frac{1}{3}$ D) $\frac{1}{2}$ E) $\frac{2}{3}$

32.



ABC **üçgen** (triangle)

$|DE| = 3$ br, $|AB| = 4$ br, $|BC| = 8$ br, $|EG| = 10$ br

⇒ **Alan** (Area) $(\widehat{ABC}) = ?$

A) 8 B) 10 C) 12 D) 14 E) 16

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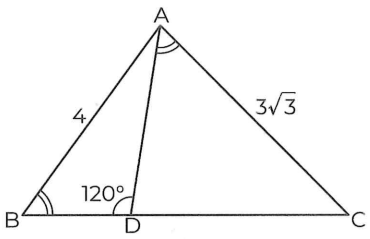
33.



ABC **üçgen** (triangle)

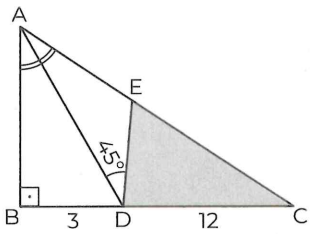
$|AC| = 3\sqrt{3}$ br, $|AB| = 4$ br

$m(\widehat{ABC}) = m(\widehat{DAC})$, $m(\widehat{BDA}) = 120°$

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) $3\sqrt{3}$ B) 6 C) 9 D) 12 E) $12\sqrt{3}$

34.



ABC **üçgen** (triangle)

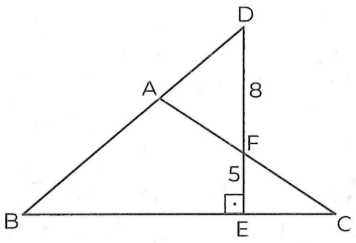
$[AB] \perp [BC]$, $m(\widehat{BAD}) = m(\widehat{DAC})$,

$m(\widehat{ADE}) = 45°$, $|BD| = 3$ br, $|DC| = 12$ br

⇒ **Alan** (Area) ($\widehat{DEC}$) = ?

A) 4 B) 6 C) 9 D) 12 E) 18

35.



ABC **üçgen** (triangle)

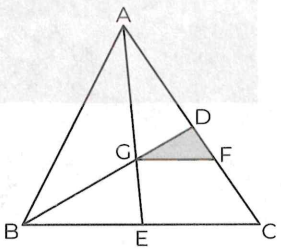
$[DE] \perp [BC]$, $|AB| = |AC|$, $|FE| = 5$ br, $|DF| = 8$ br

$|BC| = 12$ br

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 36 B) 42 C) 48 D) 54 E) 62

36.



ABC **üçgen** (triangle)

$|AD| = |DC|$, $|BE| = |EC|$, $[GF] \,//\, [BC]$

Alan (Area) ($\widehat{GDF}$) = 3 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 18 B) 27 C) 36 D) 54 E) 63

PUZA ACADEMY

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IRANINOVIN

AREA OF TRIANGLE

ÜÇGENDE ALAN

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
A	C	E	C	D	A	E	B	B	C	B	D

13	14	15	16	17	18	19	20	21	22	23	24
C	C	C	B	B	B	B	B	B	C	C	C

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
B	E	D	C	D	C	E	C	C	B	D	E

13	14	15	16	17	18	19	20	21	22	23	24
C	D	C	A	C	B	C	A	B	E	C	B

25	26	27	28	29	30	31	32	33	34	35	36
D	C	B	B	C	C	E	B	E	E	D	C

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
B	C	D	A	C	E	A	B	B	C	B	E

13	14	15	16	17	18	19	20	21	22	23	24
B	B	C	A	D	C	A	A	C	C	C	A

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
B	C	C	E	C	B	B	D	C	C	E	C

13	14	15	16	17	18	19	20	21	22	23	24
D	C	C	E	D	C	A	C	D	B	B	B

25	26	27	28	29	30	31	32	33	34	35	36
D	B	E	D	C	C	C	C	C	E	D	D

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NOTES:

NOTES:

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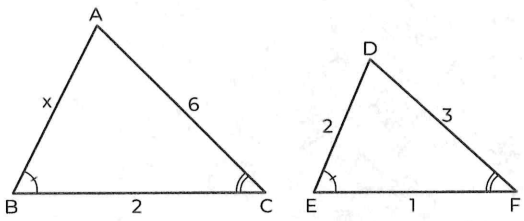
TRIANGLE SIMILARITIES

ÜÇGENDE BENZERLİK

CHAPTER | BÖLÜM 09

IRANINOVIN

1.



$\widehat{ABC} \sim \widehat{DEF}$

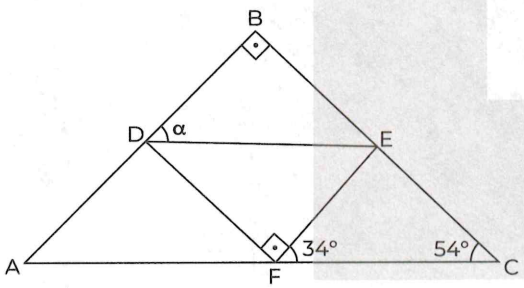
$|EF| = 1$ br, $|BC| = |DE| = 2$ br, $|DF| = 3$ br

$|AC| = 6$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 5 D) 6 E) 8

2.



ABC, DFE **dik üçgen** (right triangle)

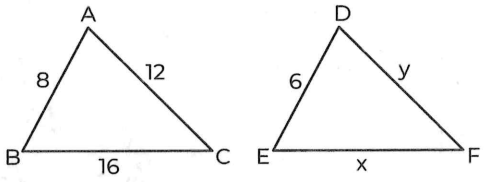
$\widehat{ABC} \sim \widehat{EFD}$

$m(\widehat{EFC}) = 34°$, $m(\widehat{ACB}) = 54°$, $m(\widehat{BDE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 34 B) 38 C) 54 D) 56 E) 88

3.



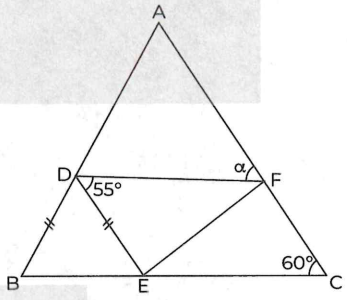
$\widehat{ABC} \sim \widehat{DEF}$, $|DE| = 6$ br, $|AB| = 8$ br,

$|AC| = 12$ br, $|BC| = 16$ br, $|EF| = x$, $|DF| = y$

$\Rightarrow x + y = ?$

A) 14 B) 17 C) 18 D) 21 E) 24

4.



$\widehat{ABC} \sim \widehat{DEF}$, $m(\widehat{EDF}) = 55°$, $m(\widehat{ACB}) = 60°$

$|BD| = |DE|$, $m(\widehat{AFD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 55 C) 60 D) 65 E) 70

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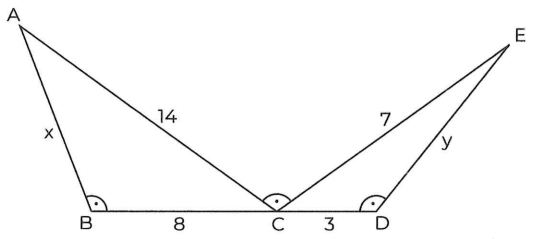
PUZA ACADEMY

5.



ABC, CDE **üçgen** (triangle)

$m(\widehat{ABD}) = m(\widehat{ACE}) = m(\widehat{EDB})$

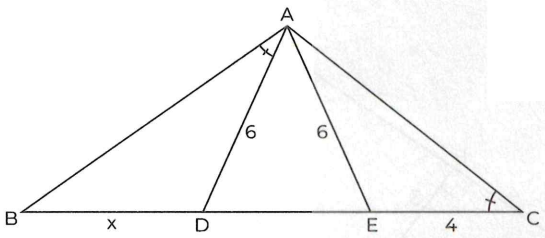
$|CD| = 3$ br, $|EC| = 7$ br, $|BC| = 8$ br, $|AC| = 14$ br

$|AB| = x$, $|ED| = y$

$\Rightarrow x \cdot y = ?$

A) 10 B) 24 C) 32 D) 56 E) 72

6.



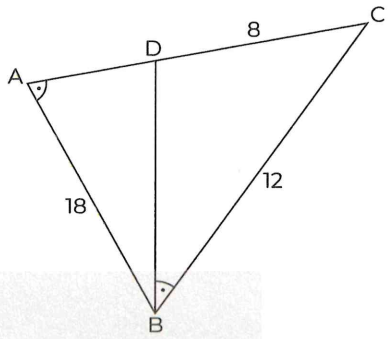
ABC **üçgen** (triangle), $m(\widehat{BAD}) = m(\widehat{ACE})$

$|EC| = 4$ br, $|AD| = |AE| = 6$ br, $|BD| = x$

$\Rightarrow x = ?$

A) $\frac{5}{9}$ B) $\frac{9}{5}$ C) 4 D) 5 E) 9

7.



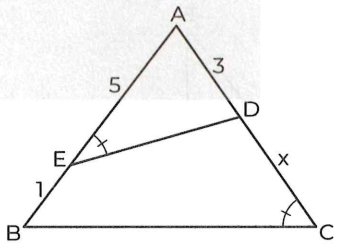
ABC **üçgen** (triangle), $m(\widehat{BAC}) = m(\widehat{CBD})$

$|CD| = 8$ br, $|BC| = 12$ br, $|AB| = 18$ br

$\Rightarrow$ **Çevre** (Perimeter)$(\widehat{ABD}) = ?$

A) 20 B) 22 C) 28 D) 30 E) 40

8.



ABC **üçgen** (triangle)

$m(\widehat{AED}) = m(\widehat{ACB})$

$|EB| = 1$ br, $|AD| = 3$ br, $|AE| = 5$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

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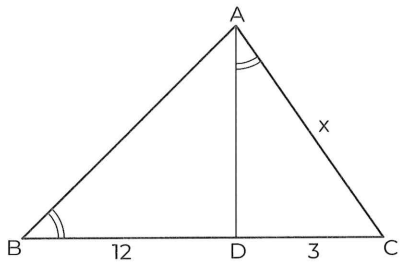
9.



ABC **üçgen** (triangle)

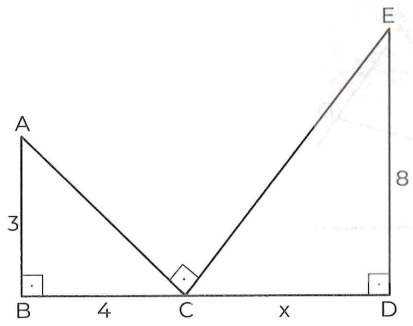
$m(\widehat{ABC}) = m(\widehat{CAD})$, $|DC| = 3$ br, $|BD| = 12$ br

$|AC| = x$

$\Rightarrow x = ?$

A) $4\sqrt{2}$ B) 6 C) $2\sqrt{10}$ D) $3\sqrt{5}$ E) 7

10.



ABC, CDE **dik üçgen** (right triangle)

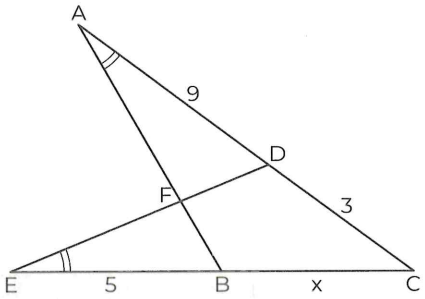
$[AC] \perp [CE]$, $|AB| = 3$ br, $|BC| = 4$ br

$|ED| = 8$ br, $|CD| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 10

11.



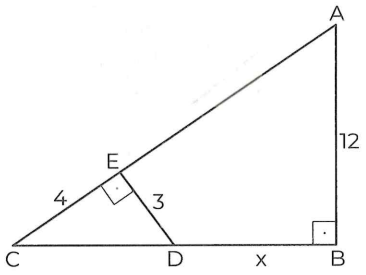
$m(\widehat{DEC}) = m(\widehat{BAC})$

$|DC| = 3$ br, $|EB| = 5$ br, $|AD| = 9$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 4 B) $\frac{9}{2}$ C) 5 D) 6 E) $\frac{13}{2}$

12.



ABC **dik üçgen** (right triangle)

$[DE] \perp [AC]$, $|ED| = 3$ br, $|EC| = 4$ br

$|AB| = 12$ br, $|DB| = x$

$\Rightarrow x = ?$

A) 8 B) 9 C) 10 D) 11 E) 12

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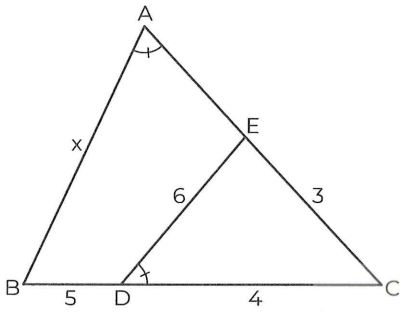
13.



ABC **üçgen** (triangle)

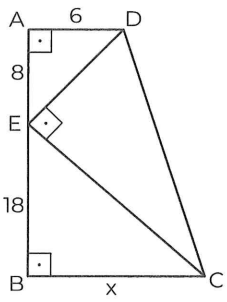
$m(\widehat{BAC}) = m(\widehat{EDC})$, $|DE| = 6$ br, $|DC| = 4$ br

$|EC| = 3$ br, $|BD| = 5$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 18 B) 12 C) 10 D) 8 E) 6

14.



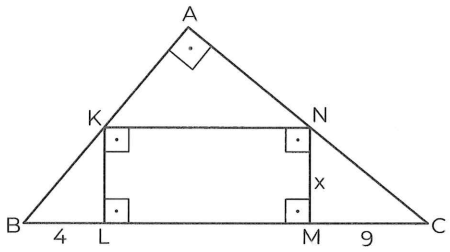
$[AD] \perp [AB]$, $[CB] \perp [AB]$, $[DE] \perp [EC]$

$|AD| = 6$ br, $|AE| = 8$ br, $|EB| = 18$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 12 B) 15 C) 16 D) 18 E) 24

15.



$[AB] \perp [AC]$, $[KN] \perp [KL]$, $[KL] \perp [BC]$

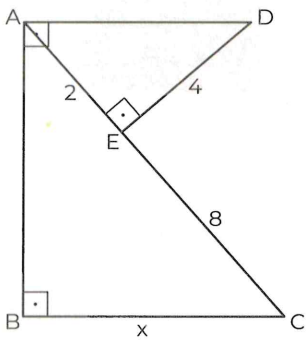
$[KN] \perp [NM]$, $[NM] \perp [BC]$

$|MC| = 9$ br, $|BL| = 4$ br, $|NM| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 8 E) 9

16.



$[BA] \perp [DA]$, $[AB] \perp [BC]$, $[DE] \perp [AC]$

$|AE| = 2$ br, $|DE| = 4$ br, $|EC| = 8$ br, $|BC| = x$

$\Rightarrow x = ?$

A) $\sqrt{5}$ B) $2\sqrt{5}$ C) $4\sqrt{5}$ D) 5 E) 10

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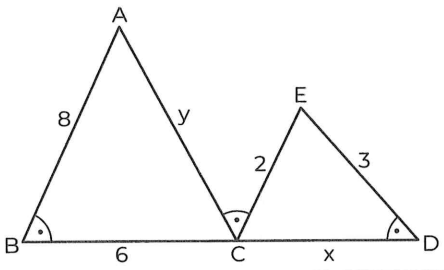
17.



$m(\widehat{ABD}) = m(\widehat{ACE}) = m(\widehat{EDB})$

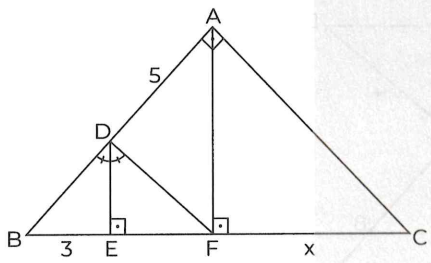
$|AB| = 8$, $|BC| = 6$ br, $|ED| = 3$ br, $|CE| = 2$ br

$|DC| = x$, $|AC| = y$

$\Rightarrow x + y = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

18.



BAC **dik üçgen** (right triangle)

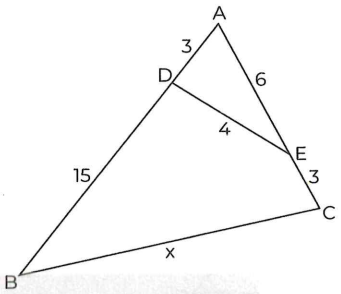
$m(\widehat{BDE}) = m(\widehat{EDF})$, $|BE| = 3$ br, $|AD| = 5$ br

$|FC| = x$

$\Rightarrow x = ?$

A) 10 B) $\frac{32}{3}$ C) 16 D) $\frac{52}{3}$ E) 36

19.



ABC **üçgen** (triangle)

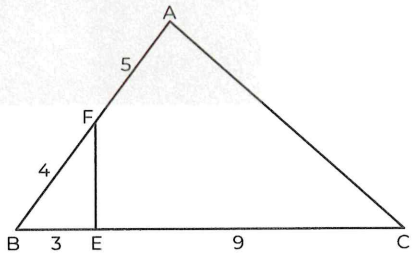
$|AD| = |EC| = 3$ br, $|AE| = 6$ br

$|BD| = 15$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 4 B) 8 C) 12 D) 16 E) 20

20.



ABC **üçgen** (triangle)

$|BE| = 3$ br, $|BF| = 4$ br, $|AF| = 5$ br, $|EC| = 9$ br

$\Rightarrow \frac{|AC|}{|EF|} = ?$

A) $\frac{2}{3}$ B) $\frac{4}{3}$ C) 2 D) 3 E) $\frac{11}{3}$

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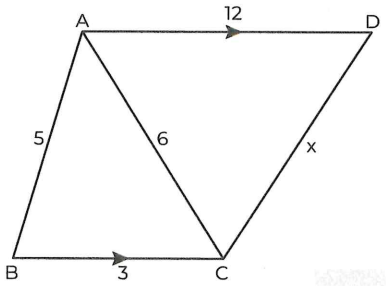
21.



ABC, ACD **üçgen** (triangle)

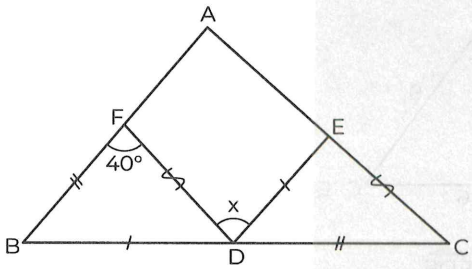
[AD] // [BC], |BC| = 3 br, |AB| = 5 br

|AC| = 6 br, |AD| = 12 br, |DC| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 24 E) 30

22.



ABC **üçgen** (triangle)

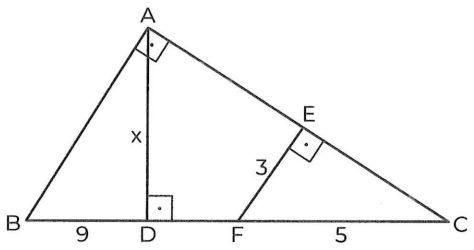
|BD| = |DE|, |FD| = |EC|, |BF| = |DC|

$m(\widehat{BFD}) = 40°$, $m(\widehat{FDE}) = x$

⇒ x = ?

A) 20 B) 30 C) 40 D) 50 E) 60

23.



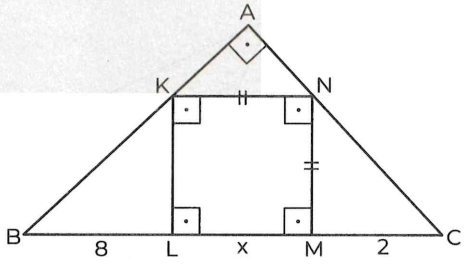
[BA] ⊥ [CA], [AD] ⊥ [BC], [FE] ⊥ [AC]

|BD| = 9 br, |FC| = 5 br, |FE| = 3 br, |AD| = x

⇒ x = ?

A) 12 B) 8 C) 6 D) 4 E) 3

24.



BAC **dik üçgen** (right triangle)

KLMN **kare** (square)

|BL| = 8 br, |MC| = 2 br, |LM| = x ⇒ x = ?

A) $4\sqrt{3}$ B) 4 C) $2\sqrt{3}$ D) $2\sqrt{2}$ E) 2

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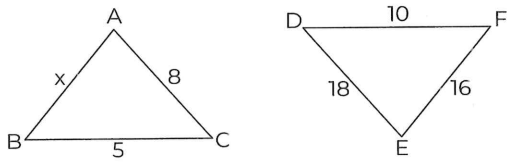
1.



ABC, DEF **üçgen** (triangle)

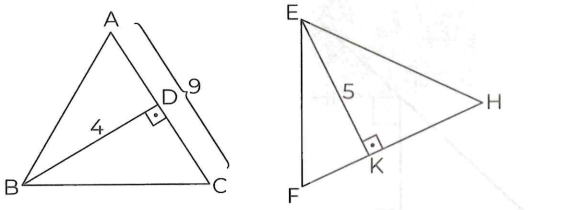
$\widehat{ABC} \sim \widehat{EDF}$, $|BC| = 5$ br, $|AC| = 8$ br

$|DF| = 10$ br, $|DE| = 18$ br, $|EF| = 16$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 8 B) 9 C) 27 D) 54 E) 81

2.

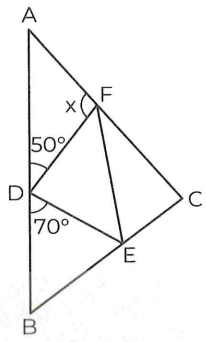


$\widehat{ABC} \sim \widehat{HEF}$, $|BD| = 4$ br, $|EK| = 5$ br, $|AC| = 9$ br

$\Rightarrow |FH| = ?$

A) $\frac{10}{9}$ B) $\frac{20}{9}$ C) $\frac{45}{4}$ D) $\frac{36}{5}$ E) $\frac{9}{20}$

3.



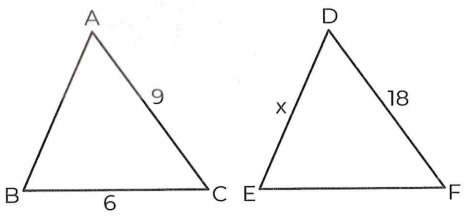
$\widehat{ABC} \sim \widehat{DFE}$, $m(\widehat{ADF}) = 50°$, $m(\widehat{BDE}) = 70°$

$m(\widehat{AFD}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 70

4.



$\widehat{ACB} \sim \widehat{EDF}$

$|AC| = 9$ br, $|BC| = 6$ br, $|DF| = 18$ br, $|DE| = x$

$\Rightarrow x = ?$

A) 6 B) 9 C) 12 D) 15 E) 27

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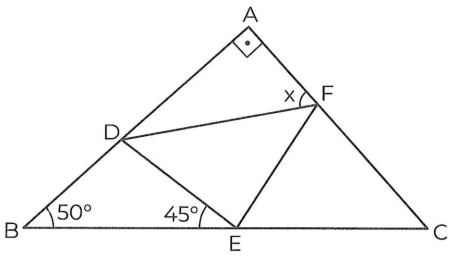
5.



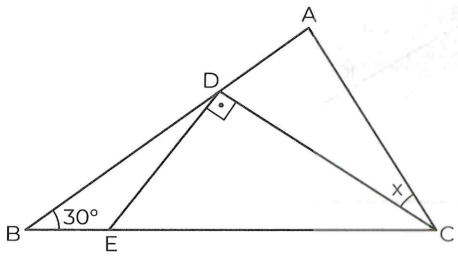
$\widehat{ABC} \sim \widehat{DEF}$, $[BA] \perp [AC]$

$m(\widehat{ABC}) = 50°$, $m(\widehat{DEB}) = 45°$, $m(\widehat{AFD}) = x$

$\Rightarrow x = ?$

A) 85 B) 70 C) 65 D) 50 E) 45

6.



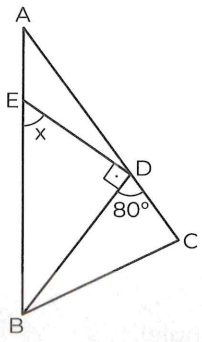
$\widehat{ABC} \sim \widehat{DCE}$, $[DE] \perp [DC]$, $m(\widehat{ABC}) = 30°$

$m(\widehat{ACD}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

7.



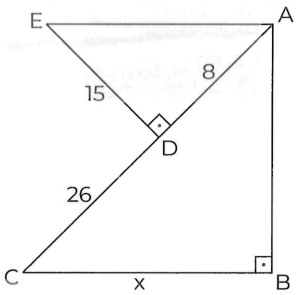
$\widehat{ACB} \sim \widehat{BED}$, $[ED] \perp [DB]$, $m(\widehat{BDC}) = 80°$

$m(\widehat{BED}) = x$

$\Rightarrow x = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

8.



$[AE] \,//\, [BC]$

ABC, EDA **dik üçgen** (right triangle)

$|AD| = 8$ br, $|ED| = 15$ br, $|CD| = 26$ br

$|BC| = x$

$\Rightarrow x = ?$

A) 8 B) 9 C) 12 D) 16 E) 17

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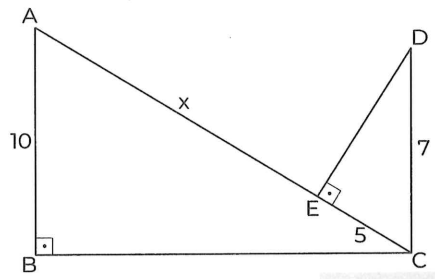
IRANINOVIN

9.



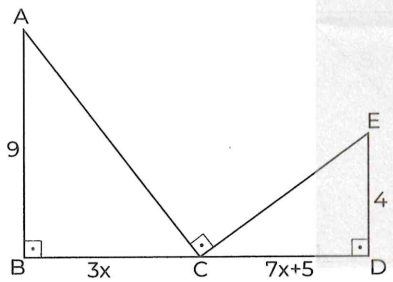
ABC, DEC **dik üçgen** (right triangle)

[DE] ⊥ [AC], [DC] ⊥ [BC], |EC| = 5 br, |DC| = 7 br

|AE| = x ⇒ x = ?

A) 6 B) 7 C) 8 D) 9 E) 10

10.



ABC, EDC **dik üçgen** (right triangle)

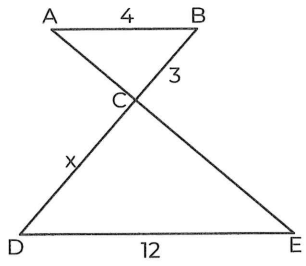
[AC] ⊥ [CE], |ED| = 4 br, |AB| = 9 br

|CD| = 7x + 5 br, |BC| = 3x br

⇒ x = ?

A) 1 B) 4 C) 6 D) 8 E) 12

11.



ABC, CDE **üçgen** (triangle)

A, C, E **doğrusal** (linear)

B, C, D **doğrusal** (linear)

[AB] // [DE], |BC| = 3 br, |AB| = 4 br, |DE| = 12 br

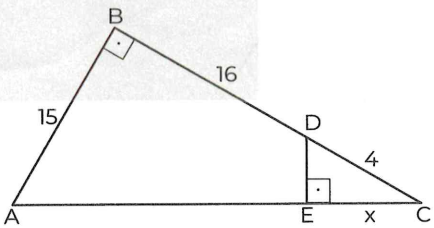
|CD| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 9 E) 12

PUZA ACADEMY

12.



ABC **dik üçgen** (right triangle)

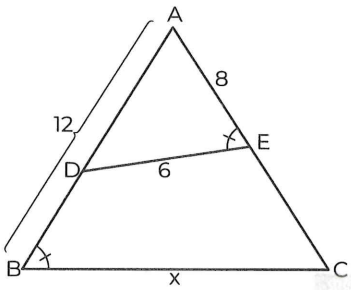
[DE] ⊥ [AC], |DC| = 4 br, |AB| = 15 br

|BD| = 16 br, |EC| = x

⇒ x = ?

A) $\frac{16}{5}$ B) $\frac{13}{5}$ C) $\frac{12}{5}$ D) 3 E) 4

13.



ABC **üçgen** (triangle)

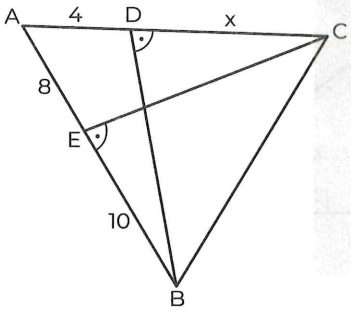
$m(\widehat{AED}) = m(\widehat{ABC})$, $|AE| = 8$ br, $|AB| = 12$ br

$|DE| = 6$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

14.



ABC **üçgen** (triangle)

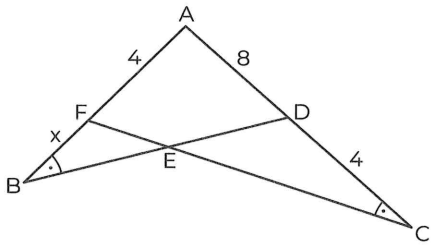
$m(\widehat{BDC}) = m(\widehat{CEB})$, $|EB| = 10$ br, $|AE| = 8$ br

$|AD| = 4$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 20 B) 24 C) 28 D) 32 E) 36

15.



ABD, AFC **üçgen** (triangle)

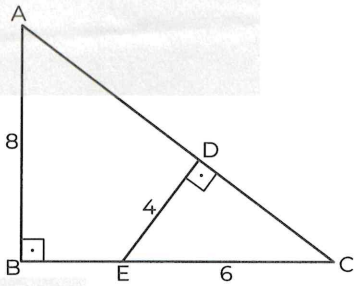
$m(\widehat{ABD}) = m(\widehat{ACF})$, $|AF| = 4$ br, $|DC| = 4$ br

$|AD| = 8$ br, $|BF| = x$

$\Rightarrow x = ?$

A) 12 B) 14 C) 16 D) 18 E) 20

16.



ABC **dik üçgen** (right triangle)

$[ED] \perp [AC]$, $|AB| = 8$ br, $|EC| = 6$ br, $|ED| = 4$ br

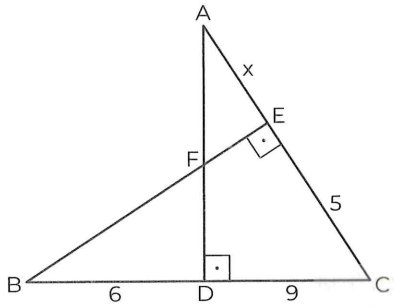
$\Rightarrow |AC| = ?$

A) 2 B) 4 C) 6 D) 8 E) 12

PUZA ACADEMY

IRANINOVIN

17.



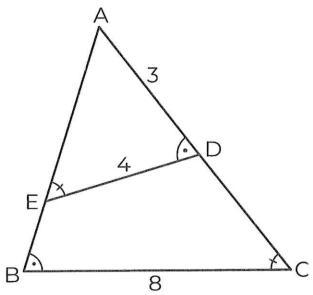
ADC, BEC **dik üçgen** (right triangle)

|DC| = 9 br, |EC| = 5 br, |BD| = 6 br, |AE| = x

⇒ x = ?

A) 32 B) 27 C) 25 D) 22 E) 19

18.



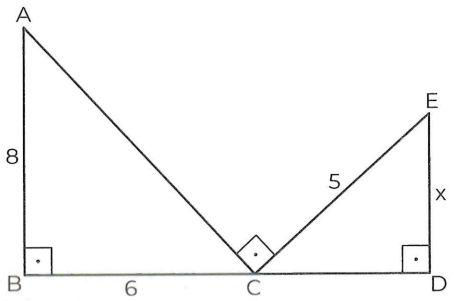
$m(\widehat{ADE}) = m(\widehat{ABC})$, $m(\widehat{AED}) = m(\widehat{ACB})$

|BC| = 8 br, |ED| = 4 br, |AD| = 3 br

⇒ |AB| = ?

A) 4 B) 6 C) 8 D) 10 E) 12

19.



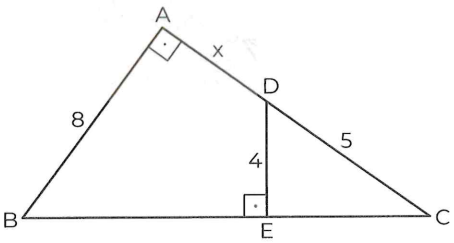
[AB] ⊥ [BD], [AC] ⊥ [CE], [ED] ⊥ [BD]

|AB| = 8 br, |BC| = 6 br, |CE| = 5 br, |ED| = x

⇒ x = ?

A) 12 B) 8 C) 6 D) 4 E) 3

20.



BAC **dik üçgen** (right triangle)

[BA] ⊥ [CA], [DE] ⊥ [BC], |AB| = 8 br, |DC| = 5 br

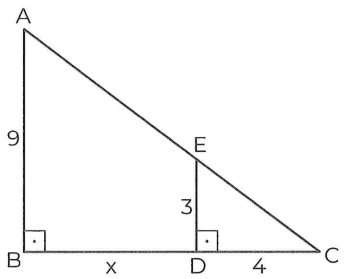
|DE| = 4 br, |AD| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

PUZA ACADEMY

21.



ABC **dik üçgen** (right triangle)

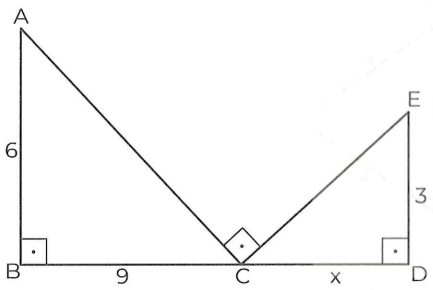
[AB] ⊥ [BC], [ED] ⊥ [BC], |AB| = 9 br, |DC| = 4 br

|ED| = 3 br, |BD| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 10 E) 12

22.



ABC, CDE **dik üçgen** (right triangle)

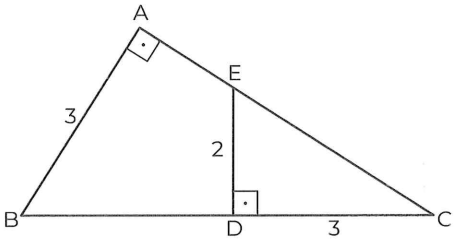
[AC] ⊥ [CE], |BC| = 9 br, |AB| = 6 br, |ED| = 3 br

|CD| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

23.



BAC **dik üçgen** (right triangle)

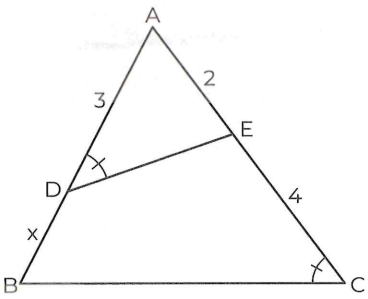
[CA] ⊥ [BA], [ED] ⊥ [BC], |DC| = 3 br, |ED| = 2 br

|AB| = 3 br

⇒ |AC| = ?

A) 9 B) 6 C) 5 D) $\frac{9}{2}$ E) $\frac{3}{2}$

24.



ABC **üçgen** (triangle)

$m(\widehat{ADE}) = m(\widehat{ACB})$, |AE| = 2 br, |AD| = 3 br

|EC| = 4 br, |BD| = x

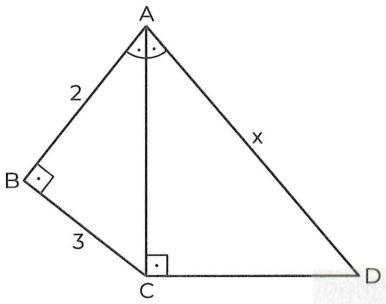
⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

PUZA ACADEMY

IRANINOVIN

25.



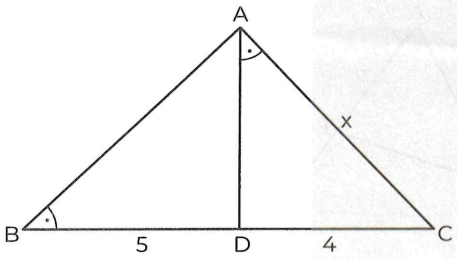
$m(\widehat{BAC}) = m(\widehat{CAD})$, [AB] ⊥ [BC], [AC] ⊥ [CD]

|AB| = 2 br, |BC| = 3 br, |AD| = x

⇒ x = ?

A) $\frac{5}{2}$ B) 6 C) $\frac{13}{2}$ D) 8 E) 13

26.



ABC **üçgen** (triangle)

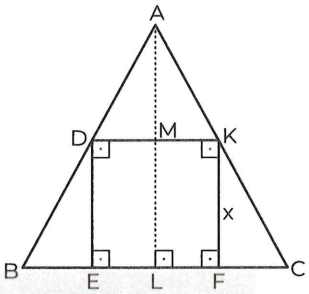
$m(\widehat{ABC}) = m(\widehat{DAC})$, |BD| = 5 br, |DC| = 4 br

|AC| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

27.



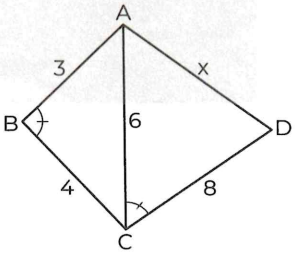
DEFK **kare** (square)

[AL] ⊥ [BC], |AL| = 3 br, |BC| = 4 br, |KF| = x

⇒ x = ?

A) $\frac{2}{7}$ B) $\frac{1}{5}$ C) $\frac{3}{5}$ D) 1 E) $\frac{12}{7}$

28.



ABC, ACD **üçgen** (triangle)

$m(\widehat{ABC}) = m(\widehat{ACD})$, |AB| = 3 br,

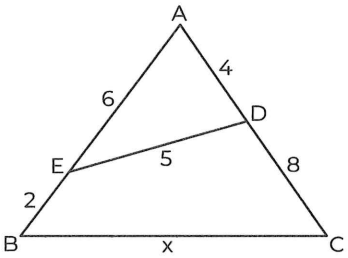
|BC| = 4 br, |AC| = 6 br, |CD| = 8 br, |AD| = x

⇒ x = ?

A) 7 B) 8 C) 9 D) 10 E) 12

PUZA ACADEMY

29.



ABC **üçgen** (triangle)

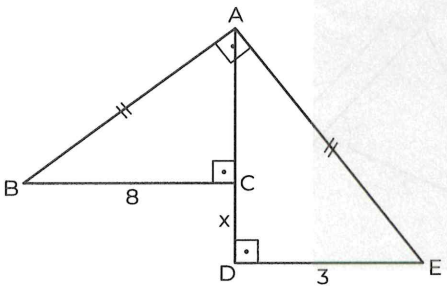
|EB| = 2 br, |AD| = 4 br, |ED| = 5 br

|AE| = 6 br, |DC| = 8 br, |BC| = x

⇒ x = ?

A) 10 B) 12 C) 13 D) 15 E) 16

30.



ACB, ADE **dik üçgen** (right triangle)

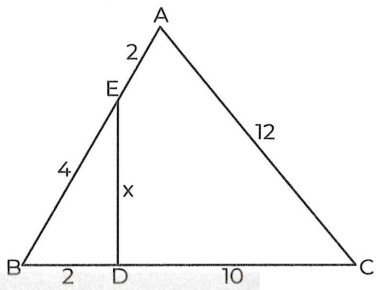
[BA] ⊥ [EA], |AB| = |AE|, |DE| = 3 br, |BC| = 8 br

|DC| = x

⇒ x = ?

A) 5 B) 4 C) 3 D) 2 E) 1

31.



ABC **üçgen** (triangle)

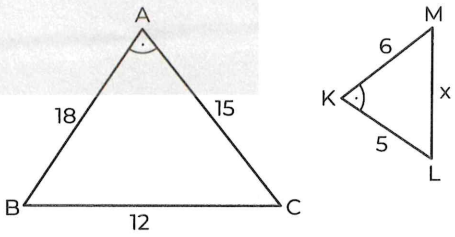
|AC| = 12 br, |DC| = 10 br, |BE| = 4 br

|BD| = |AE| = 2 br, |ED| = x

⇒ x = ?

A) $\frac{1}{2}$ B) 2 C) 3 D) 4 E) 6

32.



$\widehat{ABC} \sim \widehat{KLM}$

|AB| = 18 br, |AC| = 15 br, |BC| = 12 br

|KM| = 6 br, |KL| = 5 br, |ML| = x

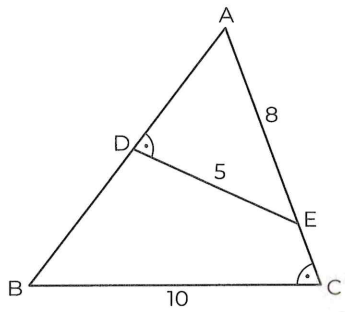
⇒ x = ?

A) 4 B) 6 C) 9 D) 12 E) 24

PUZA ACADEMY

IRANINOVIN

33.



ABC **üçgen** (triangle)

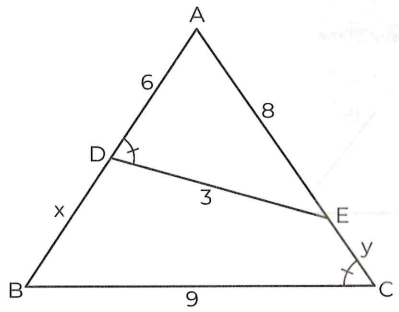
$m(\widehat{ADE}) = m(\widehat{ACB})$, $|BC| = 10$ br, $|AE| = 8$ br

$|DE| = 5$ br

$\Rightarrow |AB| = ?$

A) 8 B) 12 C) 16 D) 18 E) 20

34.



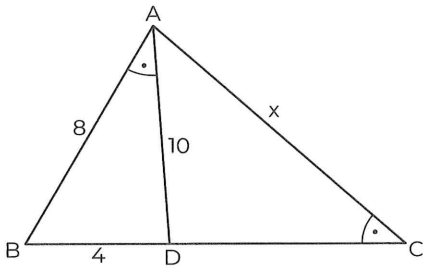
$\widehat{ADE} \sim \widehat{ACB}$, $|BC| = 9$ br, $|AE| = 8$ br, $|AD| = 6$ br

$|DE| = 3$ br, $|BD| = x$, $|EC| = y$

$\Rightarrow x + y = ?$

A) 28 B) 26 C) 24 D) 20 E) 18

35.



ABC **üçgen** (triangle)

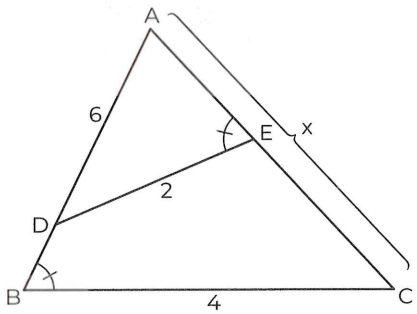
$m(\widehat{ACB}) = m(\widehat{BAD})$, $|AB| = 8$ br, $|AD| = 10$ br

$|BD| = 4$ br, $|AC| = x$

$\Rightarrow x = ?$

A) 10 B) 16 C) 20 D) 24 E) 30

36.



ABC **üçgen** (triangle)

$m(\widehat{AED}) = m(\widehat{ABC})$, $|AD| = 6$ br, $|BC| = 4$ br

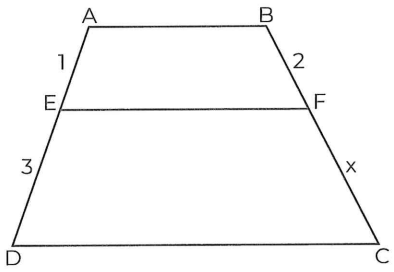
$|DE| = 2$ br, $|AC| = x$

$\Rightarrow x = ?$

A) 15 B) 12 C) 10 D) 8 E) 7

PUZA ACADEMY

1.



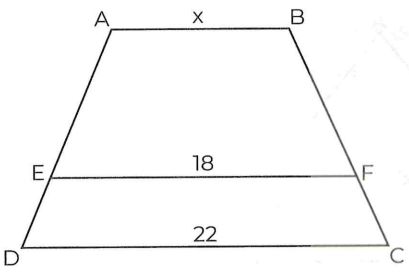
[AB] // [EF] // [DC]

|AE| = 1 br, |BF| = 2 br, |ED| = 3 br, |FC| = x

⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 7

2.



ABCD **dörtgen** (quadrilateral),

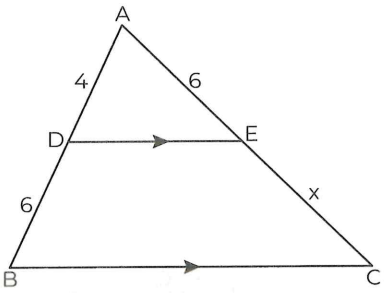
[AB] // [EF] // [DC], 2|BF| = 3|FC|, |EF| = 18 br

|DC| = 22 br, |AB| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 14 E) 16

3.



ABC **üçgen** (triangle)

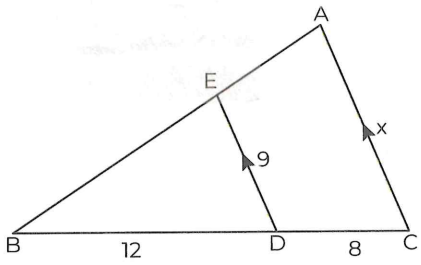
[DE] // [BC], |AD| = 4 br

|AE| = |DB| = 6 br, |EC| = x

⇒ x = ?

A) 6 B) 8 C) 9 D) 10 E) 12

4.



ABC **üçgen** (triangle)

|DC| = 8 br, |ED| = 9 br, |BD| = 12 br, |AC| = x

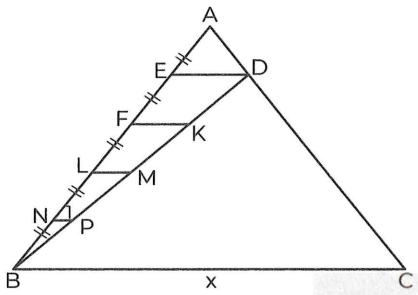
⇒ x = ?

A) 12 B) 15 C) 16 D) 18 E) 20

PUZA ACADEMY

IRANINOVIN

5.



ABC **üçgen** (triangle)

[ED] // [FK] // [LM] // [NP]

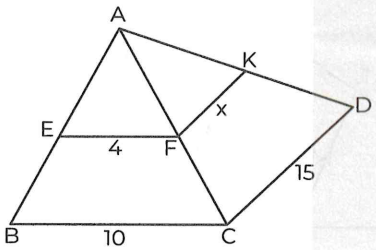
|AE| = |EF| = |FL| = |LN| = |NB|

|NP| = 1 br, |BC| = x

⇒ x = ?

A) 12 B) 15 C) 18 D) 20 E) 25

6.



ABC, ACD **üçgen** (triangle)

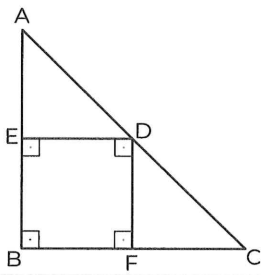
[EF] // [BC], [FK] // [CD]

|EF| = 4 br, |BC| = 10 br, |CD| = 15 br, |FK| = x

⇒ x = ?

A) 6 B) 8 C) 9 D) 10 E) 12

7.



ABC **dik üçgen** (right triangle)

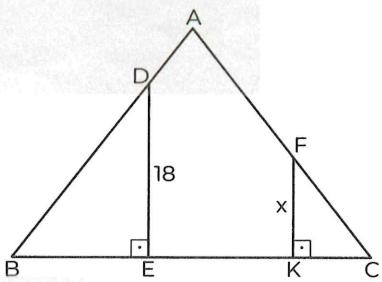
EBFD **kare** (square)

|BC| = 12 br, |AB| = 24 br

⇒ **Çevre** (Perimeter)(EBFD) = ?

A) 20 B) 24 C) 28 D) 32 E) 36

8.



ABC **üçgen** (triangle)

[DE] ⊥ [BC], [FK] ⊥ [BC], |BD| = 3|AD|

|AF| = 2|FC|, |DE| = 18 br, |FK| = x

⇒ x = ?

A) 8 B) 9 C) 10 D) 12 E) 15

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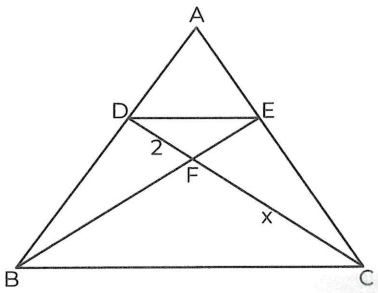
9.



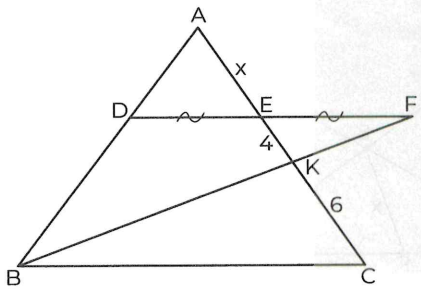
ABC **üçgen** (triangle)

[DE] // [BC], 3|AD| = 2|DB|, |DF| = 2 br, |FC| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 8 E) 9

10.



ABC **üçgen** (triangle)

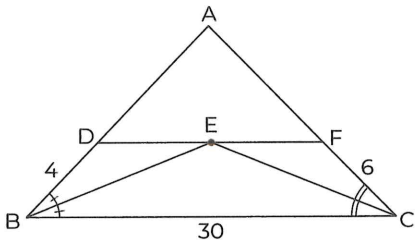
[DF] // [BC], |DE| = |EF|

|EK| = 4 br, |KC| = 6 br, |AE| = x

⇒ x = ?

A) 15 B) 16 C) 18 D) 20 E) 25

11.



ABC **üçgen** (triangle)

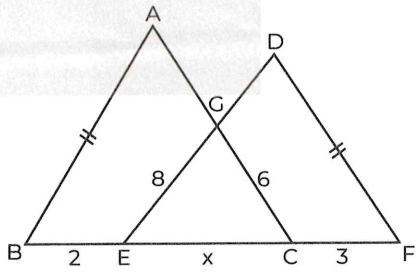
$m(\widehat{ABE}) = m(\widehat{EBC})$, $m(\widehat{ACE}) = m(\widehat{ECB})$

[DF] // [BC], |BD| = 4 br, |FC| = 6 br, |BC| = 30 br

⇒ **Çevre** (Perimeter)($\widehat{ADF}$) = ?

A) 5 B) 10 C) 15 D) 20 E) 25

12.



ABC, DEF **üçgen** (triangle)

|AB| = |DF|, [DE] // [AB], [AC] // [DF]

|BE| = 2 br, |CF| = 3 br, |GC| = 6 br, |GE| = 8 br

|EC| = x

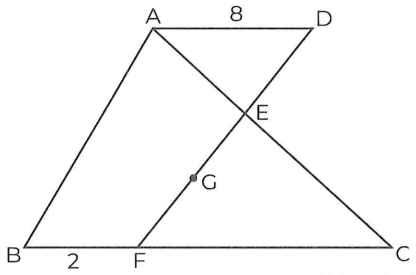
⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 6

PUZA ACADEMY

IRANINOVIN

13.



ABC **üçgen** (triangle)

G, ABC üçgeninin ağırlık merkezi

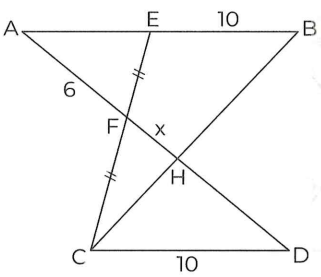
G, is center of gravity of triangle ABC

|BF| = 2 br, |AB| = 8 br

⇒ |FC| = ?

A) 2 B) 4 C) 6 D) 8 E) 10

14.



ABH, CHD **üçgen** (triangle)

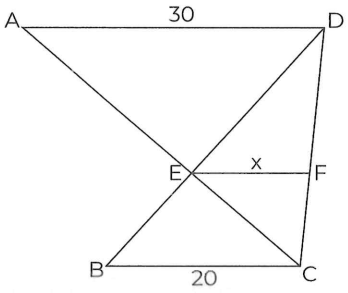
|EF| = |CF|, |AF| = 6 br, |CD| = |EB| = 10 br

|FH| = x

⇒ x = ?

A) 2 B) 4 C) 6 D) 8 E) 10

15.



ADC, BCD **üçgen** (triangle)

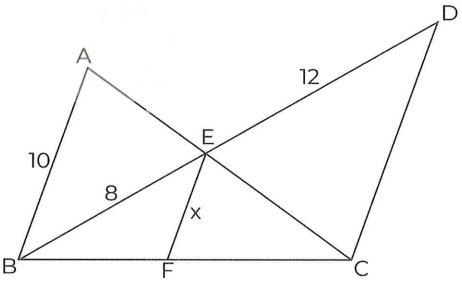
[AD] // [EF] // [BC]

|BC| = 20 br, |AD| = 30 br, |EF| = x

⇒ x = ?

A) 9 B) 10 C) 12 D) 15 E) 18

16.



[AB] // [EF] // [CD]

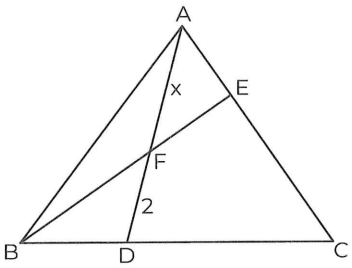
|BE| = 8 br, |AB| = 10 br, |ED| = 12 br, |EF| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 12 E) 16

PUZA ACADEMY

17.



ABC **üçgen** (triangle)

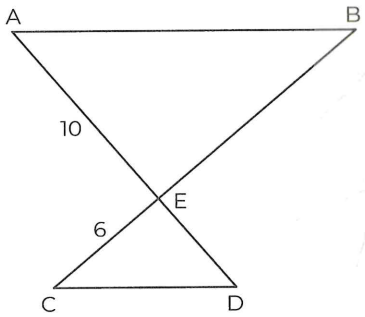
$[AD] \cap [BE] = \{F\}$, $|DC| = 5|BD|$,

$3|AE| = 2|EC|$, $|DF| = 2$ br, $|AF| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

18.



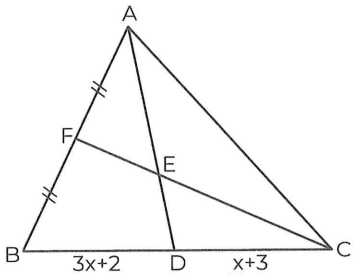
$[AB] \,//\, [CD]$, $|AB| = 2|CD|$

$|CE| = 6$ br, $|AE| = 10$ br

$\Rightarrow |BE| + |ED| = ?$

A) 15 B) 16 C) 17 D) 18 E) 19

19.



ABC **üçgen** (triangle)

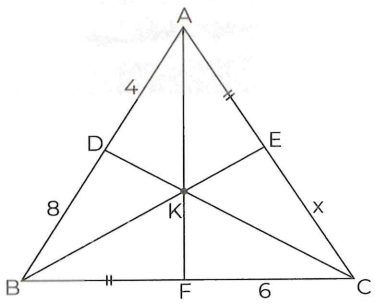
$|AF| = |FB|$, $\frac{|EC|}{|FE|} = \frac{5}{4}$, $|BD| = (3x + 2)$ br

$|DC| = (x + 3)$ br

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

20.



ABC **üçgen** (triangle), $|AE| = |BF|$, $|AD| = 4$ br

$|FC| = 6$ br, $|BD| = 8$ br, $|EC| = x$

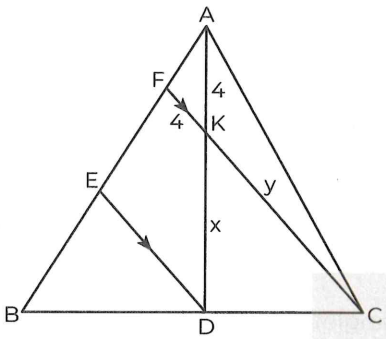
$\Rightarrow x = ?$

A) 6 B) 8 C) 10 D) 12 E) 14

PUZA ACADEMY

IRANINOVIN

21.



ABC **üçgen** (triangle)

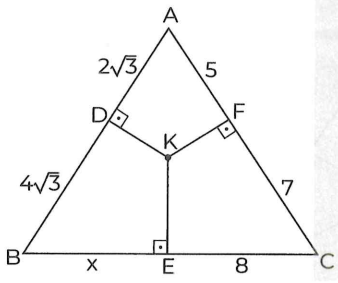
[ED] // [FC], 15|AF| = 10|FE| = 6|BE|, |FK| = 4 br

|KD| = x, |KC| = y

⇒ y – x = ?

A) 2 B) 4 C) 6 D) 8 E) 10

22.



[KD] ⊥ [AB], [KF] ⊥ [AC], [KE] ⊥ [BC]

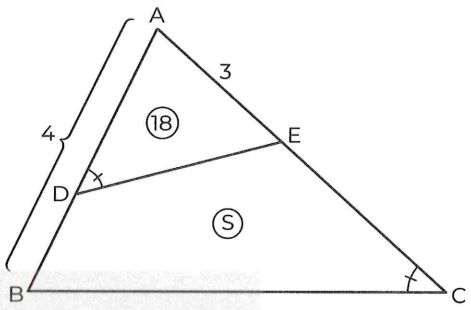
|AD| = $2\sqrt{3}$ br, |AF| = 5 br, |BD| = $4\sqrt{3}$ br

|FC| = 7 br, |EC| = 8 br, |BE| = x

⇒ x = ?

A) 7 B) $\sqrt{55}$ C) $2\sqrt{19}$ D) $\sqrt{83}$ E) 10

23.



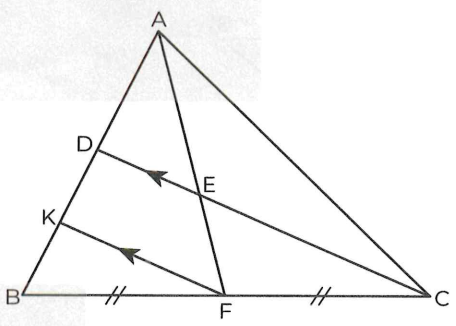
$m(\widehat{ADE}) = m(\widehat{ACB})$, $A(\widehat{ADE}) = 18\ br^2$

|AB| = 4 br, |AE| = 3 br, A(DECB) = S

⇒ S = ?

A) 7 B) 12 C) 14 D) 21 E) 28

24.



ABC **üçgen** (triangle)

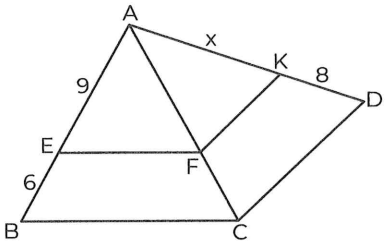
[KF] // [DC], |AD| = |DB|, |BF| = |FC|

⇒ $\frac{|AE|}{|EF|}$ = ?

A) 5 B) 3 C) 2 D) 1 E) $\frac{1}{2}$

PUZA ACADEMY

1.



ABC, ACD **üçgen** (triangle)

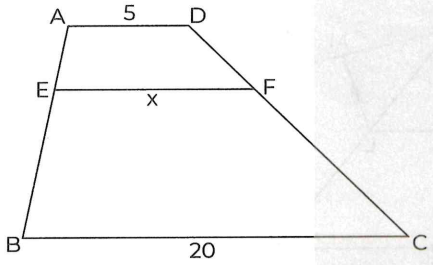
[EF] // [BC], [FK] // [CD]

|EB| = 6 br, |KD| = 8 br, |AE| = 9 br, |AK| = x

⇒ x = ?

A) 9 B) 10 C) 12 D) 15 E) 16

2.



[AD] // [EF] // [BC]

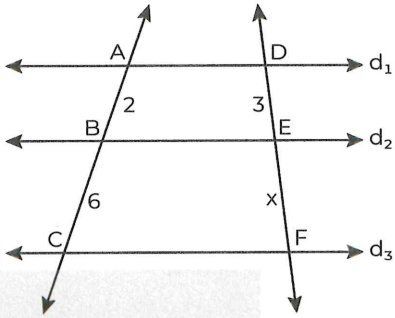
|AD| = 5 br, |BC| = 20 br, |EF| = x

$\frac{|DF|}{|FC|} = \frac{1}{4}$

⇒ x = ?

A) 6 B) 8 C) 10 D) 12 E) 16

3.



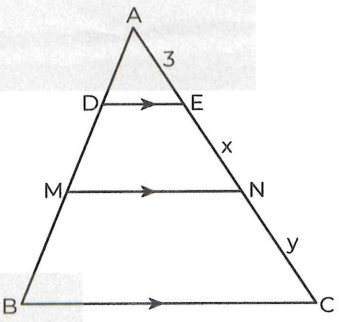
d_1 // d_2 // d_3

|AB| = 2 br, |DE| = 3 br, |BC| = 6 br, |EF| = x

⇒ x = ?

A) 9 B) 10 C) 11 D) 12 E) 13

4.



6|AD| = 3|DM| = 2|BM|, [DE] // [MN] // [BC]

|AE| = 3 br, |EN| = x, |NC| = y

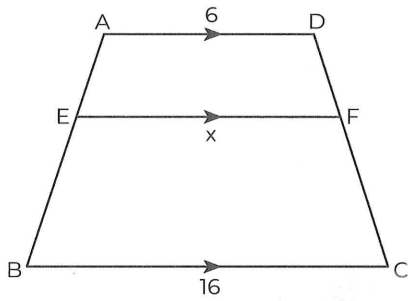
⇒ x – y = ?

A) –4 B) –3 C) 0 D) 1 E) 2

PUZA ACADEMY

IRANINOVIN

5.



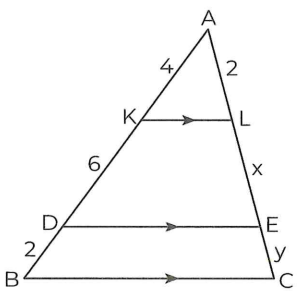
[AD] // [EF] // [BC], 2|BE| = 3|AE|, |AD| = 6 br

|BC| = 16 br, |EF| = x

⇒ x = ?

A) 14 B) 12 C) 10 D) 8 E) 6

6.



ABC **üçgen** (triangle)

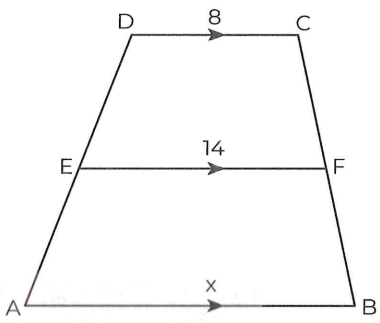
[KL] // [DE] // [BC], |AL| = 2 br, |DB| = 2 br

|AK| = 4 br, |KD| = 6 br, |LE| = x, |EC| = y

⇒ x – y = ?

A) 1 B) 2 C) 3 D) 4 E) 5

7.



[DC] // [EF] // [AB], 2|DE| = 3|EA|

|DC| = 8 br, |EF| = 14 br, |AB| = x

⇒ x = ?

A) 18 B) 16 C) 20 D) 22 E) 23

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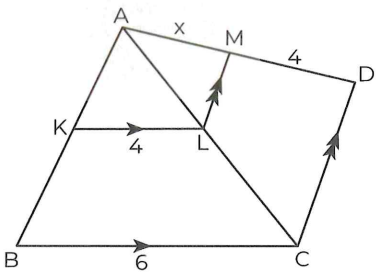
8.



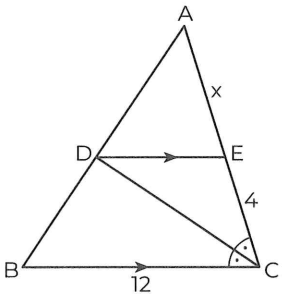
[KL] // [BC], [LM] // [DC], |KL| = 4 br, |MD| = 4 br

|BC| = 6 br, |MA| = x

⇒ x = ?

A) 3 B) 5 C) 8 D) 11 E) 13

9.



ABC **üçgen** (triangle)

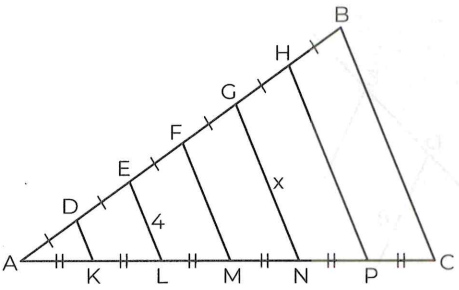
[DE] // [BC], $m(\widehat{BCD}) = m(\widehat{DCE})$

|BC| = 12 br, |EC| = 4 br, |AE| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

10.



|AK| = |KL| = |LM| = |MN| = |NP| = |PC|

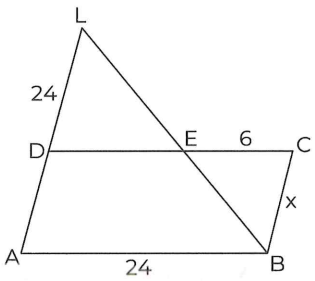
|AD| = |DE| = |EF| = |FG| = |GH| = |HB|

|EL| = 4 br, |GN| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 14 E) 16

11.



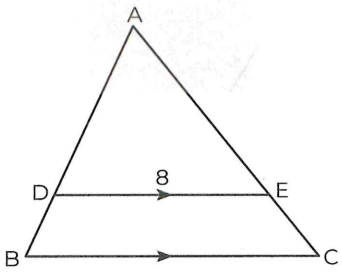
[DC] // [AB], [AD] // [BC]

|CE| = 6 br, |AB| = |DL| = 24 br, |BC| = x

⇒ x = ?

A) 6 B) 7 C) 8 D) 9 E) 10

12.



ABC **üçgen** (triangle)

[DE] // [BC], 3|AD| = 2|AB|, |DE| = 8 br

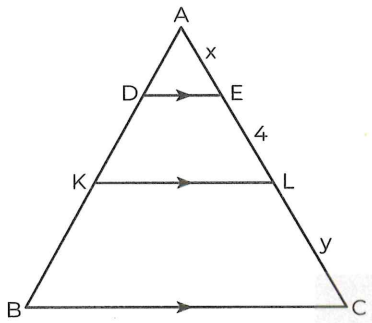
⇒ |BC| = ?

A) 8 B) 10 C) 12 D) 24 E) 36

PUZA ACADEMY

IRANINOVIN

13.



ABC **üçgen** (triangle)

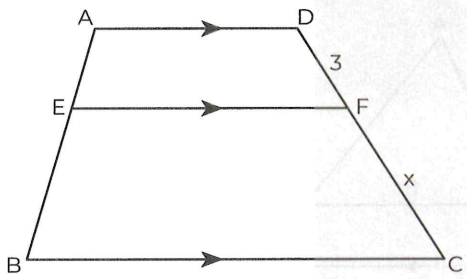
[DE] // [KL] // [BC], 6|AD| = 3|KD| = 2|BK|

|EL| = 4 br, |AE| = x, |LC| = y

⇒ x + y = ?

A) 2 B) 4 C) 6 D) 8 E) 12

14.



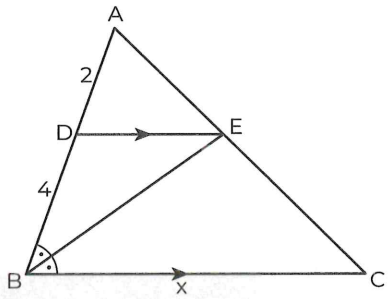
[AD] // [EF] // [BC], 2|AE| = |BE|, |DF| = 3 br

|FC| = x

⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 8

15.



ABC **üçgen** (triangle)

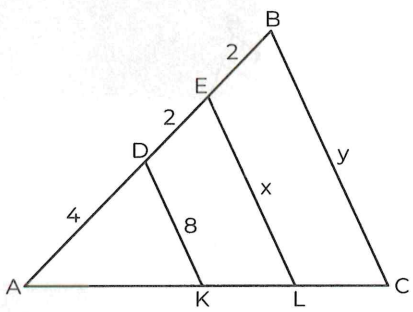
[DE] // [BC], $m(\widehat{ABE}) = m(\widehat{EBC})$, |AD| = 2 br

|DB| = 4 br, |BC| = x

⇒ x = ?

A) 3 B) 6 C) 9 D) 12 E) 18

16.



ABC **üçgen** (triangle)

[DK] // [EL] // [BC], |AD| = 4 br, |DK| = 8 br

|DE| = |EB| = 2 br, |EL| = x, |BC| = y

⇒ x + y = ?

A) 10 B) 16 C) 20 D) 24 E) 28

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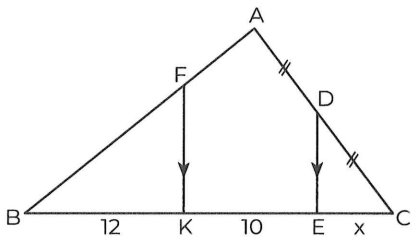
IRANINOVIN

17.



ABC **üçgen** (triangle)

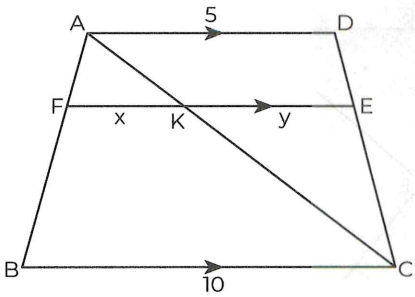
[FK] // [DE], |AD| = |DC|, |BF| = 2|AF|

|BK| = 12 br, |KE| = 10 br, |EC| = x

⇒ x = ?

A) 5 B) 4 C) 3 D) 2 E) 1

18.



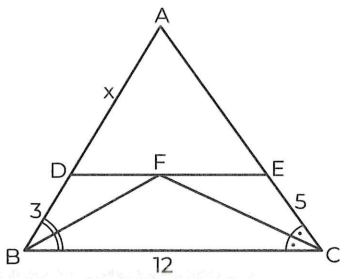
[AD] // [FE] // [BC], 4|AF| = |FB|, |AD| = 5 br

|BC| = 10 br, |FK| = x, |KE| = y

⇒ x · y = ?

A) 16 B) 12 C) 10 D) 8 E) 6

19.



ABC **üçgen** (triangle)

$m(\widehat{CBF}) = m(\widehat{FBD})$, $m(\widehat{ACF}) = m(\widehat{FCB})$

|BD| = 3 br, |EC| = 5 br, |BC| = 12 br, |AD| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 8 E) 9

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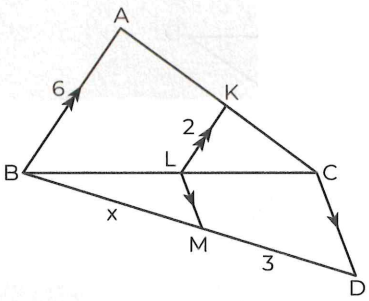
20.



[KL] // [AB], [LM] // [CD]

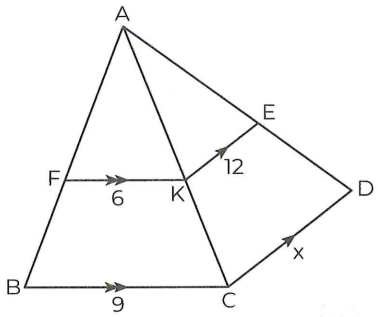
|KL| = 2 br, |AB| = 6 br, |MD| = 3 br, |BM| = x

⇒ x = ?

A) 3 B) 6 C) 9 D) 10 E) 12

IRANINOVIN

21.



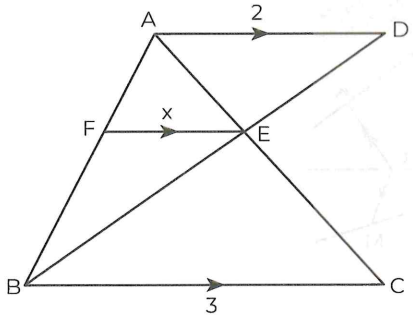
[FK] // [BC], [KE] // [CD]

|FK| = 6 br, |BC| = 9 br, |KE| = 12 br, |CD| = x

⇒ x = ?

A) 24 B) 20 C) 18 D) 16 E) 41

22.



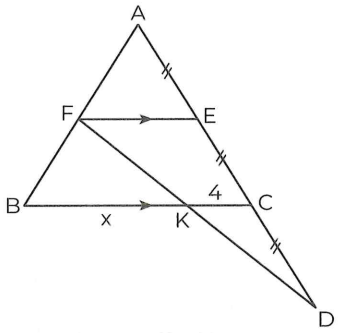
[AD] // [FE] // [BC]

|AD| = 2 br, |BC| = 3 br, |FE| = x

⇒ x = ?

A) $\frac{1}{5}$ B) $\frac{2}{5}$ C) $\frac{3}{5}$ D) 1 E) $\frac{6}{5}$

23.



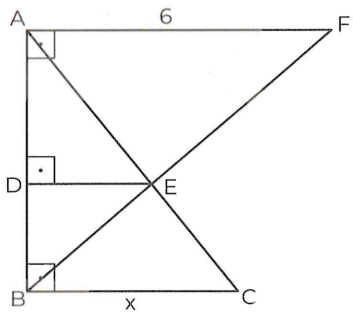
[FE] // [BC], |AE| = |EC| = |CD|

|KC| = 4 br, |BK| = x

⇒ x = ?

A) 12 B) 10 C) 9 D) 8 E) 7

24.



[FA] ⊥ [AB], [ED] ⊥ [AB], [CB] ⊥ [AB]

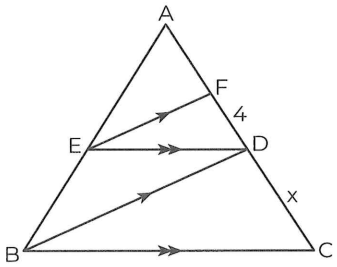
3|DB| = |AD|, |AF| = 6 br, |BC| = x

⇒ x = ?

A) 6 B) $\frac{9}{2}$ C) 3 D) 2 E) $\frac{3}{2}$

PUZA ACADEMY

25.



ABC **üçgen** (triangle)

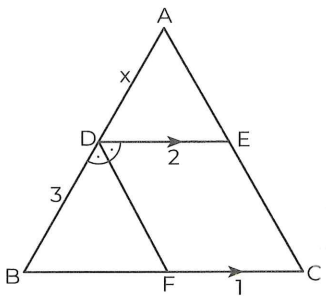
[EF] // [BD], [ED] // [BC], 2|AE| = 3|EB|

|FD| = 4 br, |DC| = x

⇒ x = ?

A) $\frac{5}{2}$ B) 4 C) $\frac{10}{3}$ D) $\frac{20}{3}$ E) 8

26.



ABC **üçgen** (triangle)

[DE] // [BC], $m(\widehat{BDF}) = m(\widehat{FDE})$, |BD| = 3 br

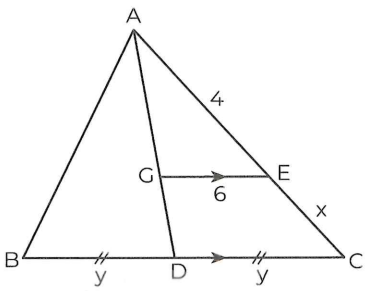
|DE| = 2 br, |FC| = 1 br, |AD| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

PUZA ACADEMY

27.



ABC **üçgen** (triangle)

G, ağırlık merkezi (center of gravity)

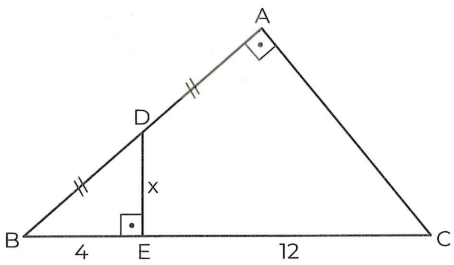
[GE] // [BC], |BD| = |DC|, |AE| = 4 br, |GE| = 6 br

|EC| = x, |DC| = y

⇒ x + y = ?

A) 15 B) 11 C) 10 D) 8 E) 7

28.



[BA] ⊥ [CA], [DE] ⊥ [BC], |AD| = |BD|

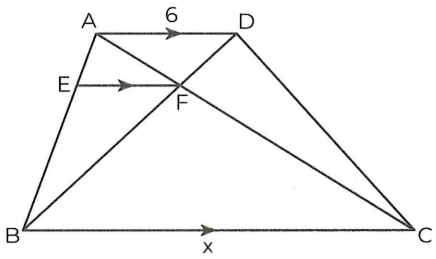
|BE| = 4 br, |EC| = 12 br, |DE| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

IRANINOVIN

29.



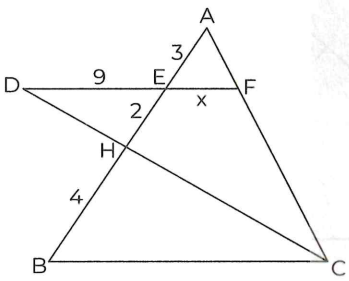
[AD] // [EF] // [BC], 2|AE| = |EB|, |AD| = 6 br

|BC| = x

⇒ x = ?

A) 6 B) 8 C) 10 D) 12 E) 15

30.



ABC **üçgen** (triangle)

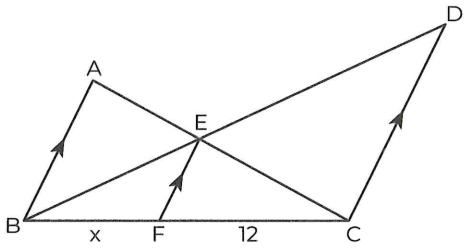
[DF] // [BC], |EH| = 2 br, |AE| = 3 br, |BH| = 4 br

|DE| = 9 br, |EF| = x

⇒ x = ?

A) 5 B) 6 C) 7 D) 8 E) 9

31.



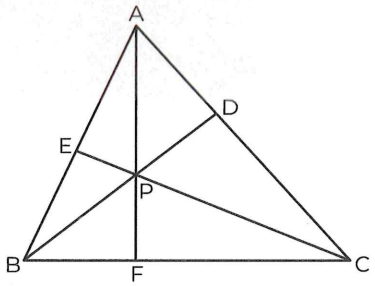
[AB] // [EF] // [DC], 2|DC| = 3|AB|, |FC| = 12 br

|BF| = x

⇒ x = ?

A) 12 B) 8 C) 6 D) 4 E) 2

32.



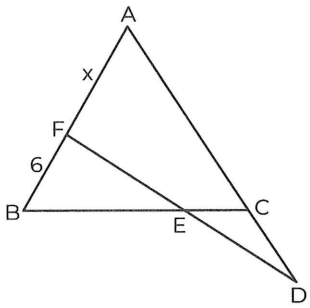
ABC **üçgen** (triangle)

$\frac{|BF|}{|FC|} = \frac{1}{4}$, $\frac{|DC|}{|AC|} = \frac{7}{11} \Rightarrow \frac{|BE|}{|EA|} = ?$

A) $\frac{7}{16}$ B) $\frac{7}{20}$ C) $\frac{1}{7}$ D) $\frac{16}{7}$ E) $\frac{20}{7}$

PUZA ACADEMY

33.



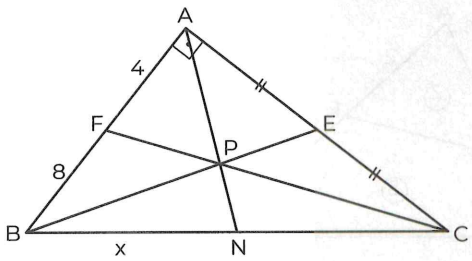
$|EC| = \frac{|BE|}{2}$, $|AC| = 4 \cdot |CD|$

$|BF| = 6$ br, $|AF| = x$

$\Rightarrow x = ?$

A) 10 B) 12 C) 13 D) 14 E) 15

34.



$[AB] \perp [AC]$, $|AE| = |EC|$, $|AF| = 4$ br, $|BF| = 8$ br

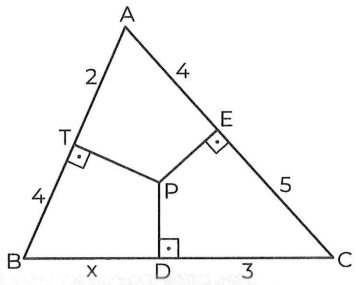
$|AC| = 9$ br, $|BN| = x$

$\Rightarrow x = ?$

A) 15 B) 12 C) 10 D) 8 E) 5

PUZA ACADEMY

35.



ABC **üçgen** (triangle)

$[PD] \perp [BC]$, $[PE] \perp [AC]$, $[PT] \perp [AB]$

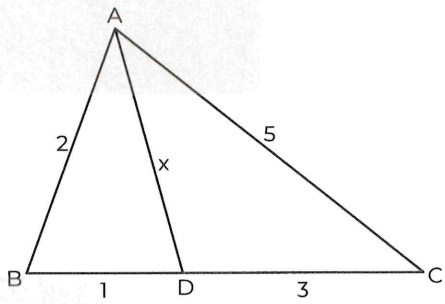
$|AE| = |BT| = 4$ br, $|EC| = 5$ br, $|DC| = 3$ br

$|AT| = 2$ br

$\Rightarrow |BD| = x = ?$

A) $2\sqrt{3}$ B) $\sqrt{13}$ C) $\sqrt{15}$ D) 4 E) $\sqrt{17}$

36.



ABC **üçgen** (triangle)

$|AB| = 2$ br, $|AC| = 5$ br, $|BD| = 1$ br, $|DC| = 3$ br

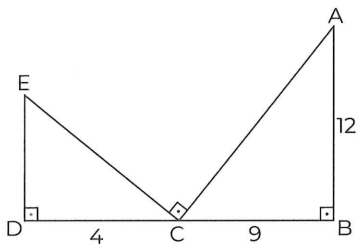
$|AD| = x$

$\Rightarrow x = ?$

A) $\frac{5}{2}$ B) $\frac{7}{2}$ C) $\frac{9}{2}$ D) $\sqrt{10}$ E) $3\sqrt{2}$

IRANINOVIN

1.



ABC, EDC **dik üçgen** (right triangle)

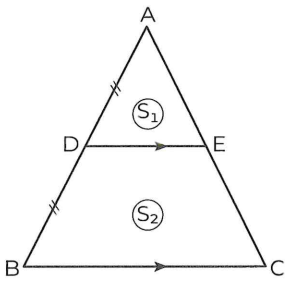
B, C, D **doğrusal** (linear)

$[AC] \perp [EC]$, $|CD| = 4$ br, $|BC| = 9$ br, $|AB| = 12$ br

Alan (Area) $(\widehat{EDC}) = ?$

A) 3 B) 4 C) 6 D) 9 E) 12

2.



ABC **üçgen** (triangle)

$[DE] \,//\, [BC]$, $|AD| = |DB|$

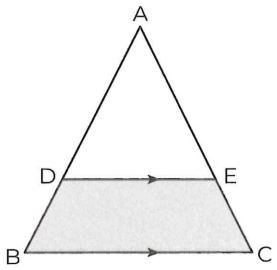
Alan (Area)$(\widehat{ADE}) = S_1$

Alan (Area)(DECB) $= S_2$, $S_2 - S_1 = 10$ br^2

$\Rightarrow$ **Alan** (Area)$(\widehat{ABC}) = ?$

A) 20 B) 18 C) 16 D) 14 E) 10

3.



ABC **üçgen** (triangle)

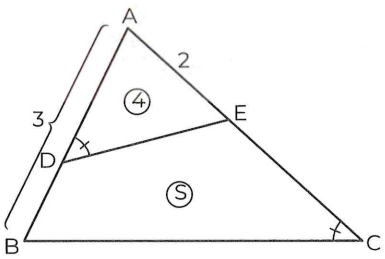
Alan (Area)$(\widehat{ABC}) = 36$ br^2, $[DE] \,//\, [BC]$

$2|DB| = |AD|$

$\Rightarrow$ **Taralı Alan** (Shaded Region) = ?

A) 5 B) 10 C) 15 D) 20 E) 30

4.



ABC **üçgen** (triangle)

$m(\widehat{ADE}) = m(\widehat{ACB})$, **Alan** (Area)$(\widehat{ADE}) = 4$ br^2

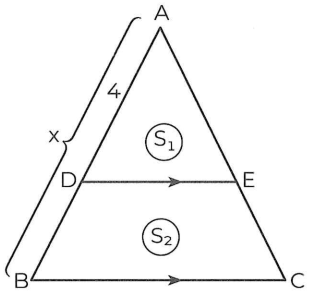
$|AE| = 2$ br, $|AB| = 3$ br, **Alan** (Area)(DECB) = S

$\Rightarrow$ S = ?

A) 2 B) 4 C) 5 D) 6 E) 9

PUZA ACADEMY

5.



ABC **üçgen** (triangle)

Alan (Area)($\widehat{ADE}$) = S_1

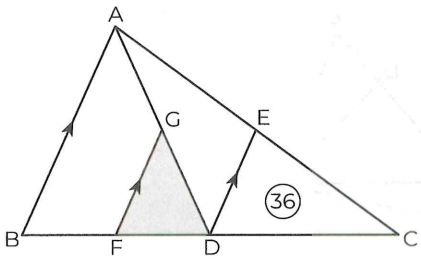
Alan (Area)(DECB) = S_2, $S_2 = S_1$

|AD| = 4 br, |AB| = x

⇒ x = ?

A) 4 B) $4\sqrt{2}$ C) 8 D) $8\sqrt{2}$ E) 16

6.



ABC **üçgen** (triangle)

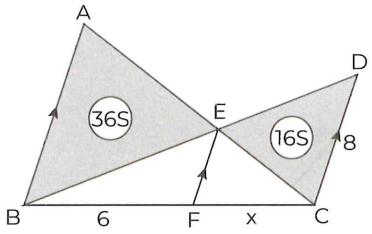
G, ağırlık merkezi (Center of gravity)

[AB] // [GF] // [ED], **Alan** (Area)($\widehat{EDC}$) = 36 br^2

⇒ **Taralı Alan** (Shaded Region) = ?

A) 8 B) 16 C) 18 D) 20 E) 36

7.



ABC, BDC **üçgen** (triangle)

[AB] // [EF] // [CD], |BF| = 6 br, |DC| = 8 br, |FC| = x

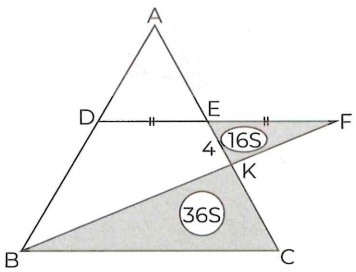
Alan (Area) ($\widehat{EDC}$) = 16S br^2

Alan (Area) ($\widehat{ABE}$) = 36S br^2

⇒ x= ?

A) 4 B) 6 C) 8 D) 9 E) 12

8.



ABC, EFK **üçgen** (triangle)

[DF] // [BC], |DE| = |EF|

Alan (Area) ($\widehat{EFK}$) = 16S br^2

Alan (Area) ($\widehat{BKC}$) = 36S br^2, |EK| = 4 br

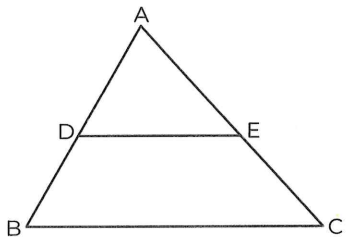
⇒ |AC| = ?

A) 10 B) 15 C) 20 D) 25 E) 30

PUZA ACADEMY

IRANINOVIN

9.



ABC **üçgen** (triangle)

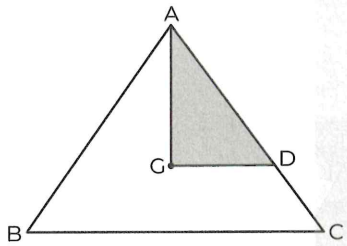
[DE] // [BC], 3|DE| = 2|BC|

Alan (Area) ($\widehat{ADE}$) = 16 br^2

⇒ **Alan** (Area) (BDEC) = ?

A) 16 B) 20 C) 24 D) 36 E) 48

10.



ABC **üçgen** (triangle)

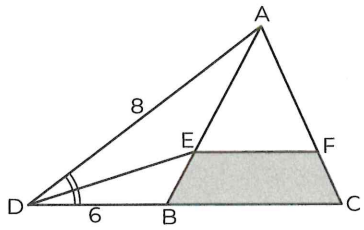
G ağırlık merkezi (G, is center of gravity)

Alan (Area) ($\widehat{AGD}$) = 12 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 18 B) 24 C) 48 D) 54 E) 62

11.



ADC **üçgen** (triangle)

m($\widehat{ADE}$) = m($\widehat{EDB}$)

[EF] // [DC], |DB| = 6 br, |AD| = 8 br

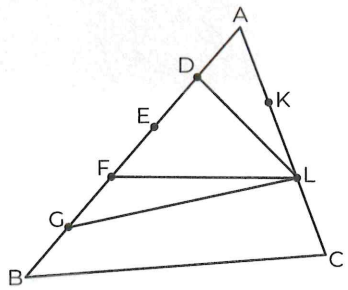
Alan (Area) ($\widehat{AEF}$) = 16 br^2

⇒ **Alan** (Area) (BEFC) = ?

A) 18 B) 25 C) 27 D) 33 E) 49

PUZA ACADEMY

12.



ABC **üçgen** (triangle)

|AD| = |DE| = |EF| = |FG| = |GB|,

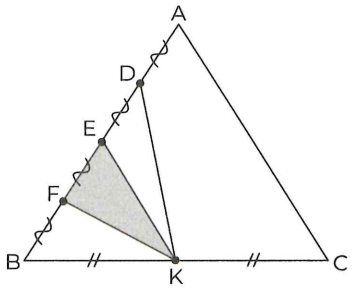
|AK| = |KL| = |LK|

Alan (Area) (GBCK) = 28 br^2

⇒ **Alan** (Area) ($\widehat{DFL}$) = ?

A) 8 B) 12 C) 16 D) 24 E) 28

1.



ABC **üçgen** (triangle)

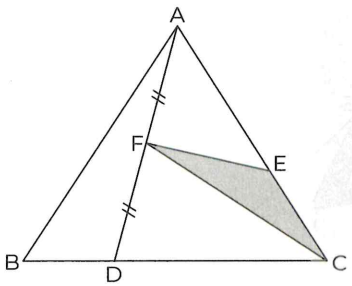
$|BK| = |KC|$, $|AD| = |DE|$, $|EF| = |FB|$,

Alan (Area) ($\widehat{ABC}$) = 64 br^2

⇒ **Alan** (Area) ($\widehat{EFK}$) = ?

A) 4 B) 8 C) 12 D) 16 E) 20

2.



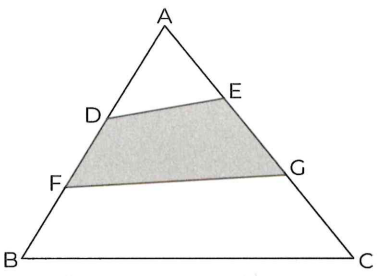
ABC **üçgen** (triangle)

$2|AE| = 3|EC|$, $|AF| = |FD|$, $2|BD| = |DC|$

$$\Rightarrow \frac{\textbf{Alan}\,(\text{Area})\,(\widehat{FEC})}{\textbf{Alan}\,(\text{Area})\,(\widehat{ABC})} = ?$$

A) $\frac{3}{4}$ B) $\frac{2}{3}$ C) $\frac{2}{15}$ D) $\frac{1}{5}$ E) $\frac{1}{3}$

3.



ABC **üçgen** (triangle)

$|AE| = |EG| = |GC|$, $2|BF| = 2|DF| = |AD|$

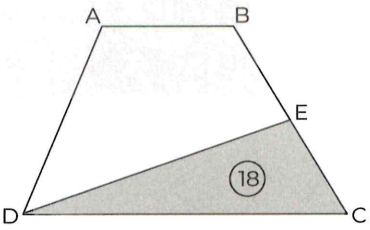
Alan (Area) (DEGF) = 12 br^2

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 12 B) 16 C) 20 D) 24 E) 36

PUZA ACADEMY

4.



ABCD **dörtgen** (quadrilateral)

$[AB] \,//\, [DC]$, $3|BE| = 2|EC|$, $2|AB| = |DC|$

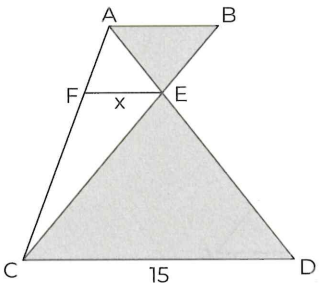
Alan (Area) ($\widehat{DEC}$) = 18 br^2

⇒ **Alan** (Area) (ABCD) = ?

A) 30 B) 32 C) 38 D) 40 E) 45

IRANINOVIN

5.



ABE, CED **üçgen** (triangle)

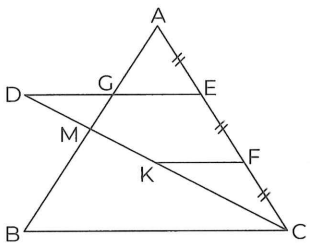
[AB] // [CD], $\frac{\textbf{Alan}\,(\text{Area})\,(\widehat{ABE})}{\textbf{Alan}\,(\text{Area})\,(\widehat{ECD})} = \frac{4}{9}$

|CD| = 15 br

⇒ |FE| = x = ?

A) 4 B) 5 C) 6 D) 8 E) 9

6.



ABC **üçgen** (triangle)

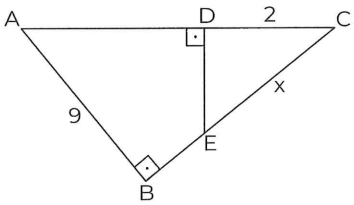
K ağırlık merkezi (K, center of gravity)

[GE] // [KF] // [BC], |AE| = |EF| = |FC|

⇒ $\frac{\textbf{Alan}\,(\text{Area})\,(\widehat{MBC})}{\textbf{Alan}\,(\text{Area})\,(\widehat{ABC})} = ?$

A) $\frac{2}{9}$ B) $\frac{1}{5}$ C) $\frac{1}{3}$ D) $\frac{1}{2}$ E) $\frac{3}{8}$

7.



ABC **dik üçgen** (right triangle)

[ED] ⊥ [AC],

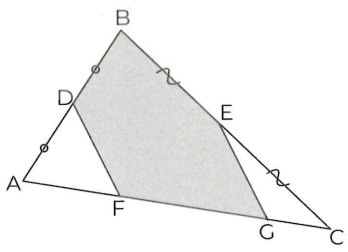
5·**Alan** (Area) ($\widehat{DEC}$) = 4·**Alan** (Area) (ABED)

|DC| = 2 br, |AB| = 9 br, |EC| = x

⇒ x = ?

A) 1 B) 2 C) $2\sqrt{10}$ D) $\sqrt{13}$ E) 4

8.



ABC **üçgen** (triangle)

[DF] // [EG], |AD| = |DB|, |BE| = |EC|

Alan (Area) ($\widehat{ADF}$) = 3 br^2

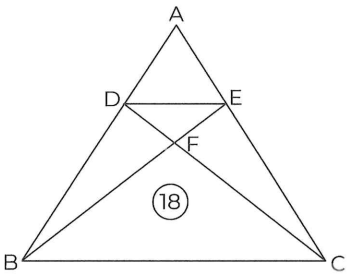
Alan (Area) ($\widehat{EGC}$) = 5 br^2

⇒ **Alan** (Area) (DBEGF) = ?

A) 12 B) 20 C) 24 D) 32 E) 48

PUZA ACADEMY

9.



ABC **üçgen** (triangle)

[DE] // [BC], [BE] ∩ [DC] = {F}

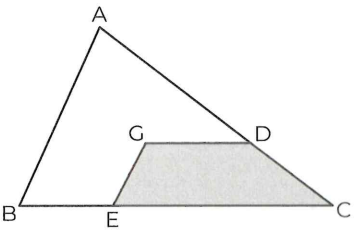
Alan (Area) ($\widehat{DBF}$) = 9 br^2

Alan (Area) ($\widehat{BFC}$) = 18 br^2

⇒ **Alan** (Area) ($\widehat{ADE}$) = ?

A) 4 B) $\frac{27}{2}$ C) 5 D) $\frac{22}{3}$ E) 9

10.



ABC **üçgen** (triangle)

G ağırlık merkezi (G, is center of gravity)

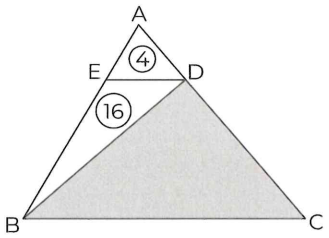
[GE] // [AB], [GD] // [BC]

Alan (Area) (GECD) = 29 br

⇒ **Alan** (Area) ($\widehat{ABC}$) = ?

A) 18 B) 24 C) 30 D) 36 E) 72

11.



ABC **üçgen** (triangle)

[ED] // [BC]

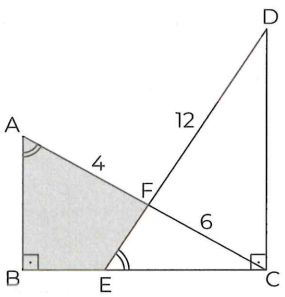
Alan (Area) ($\widehat{AED}$) = 4 br^2

Alan (Area) ($\widehat{BED}$) = 16 br^2

⇒ **Alan** (Area) ($\widehat{BDC}$) = ?

A) 36 B) 72 C) 80 D) 88 E) 96

12.



ABC, DCE **dik üçgen** (right triangle)

m($\widehat{BAC}$) = m($\widehat{DEC}$), |AF| = 4 br, |FC| = 6 br

|DF| = 12 br

⇒ **Alan** (Area) (ABEF) = ?

A) 8 B) 10 C) 11 D) 12 E) 16

PUZA ACADEMY

IRANINOVIN

NOTES:

TRIANGLE SIMILARITIES

ÜÇGENDE BENZERLİK

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
B	B	D	A	B	E	E	B	D	C	A	D

13	14	15	16	17	18	19	20	21	22	23	24
A	E	C	B	C	B	C	D	B	C	A	B

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
B	C	E	E	A	B	C	D	D	A	D	A

13	14	15	16	17	18	19	20	21	22	23	24
D	D	E	E	D	B	E	A	C	B	D	A

25	26	27	28	29	30	31	32	33	34	35	36
C	E	E	E	A	A	D	A	C	A	C	B

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	C	B	D	A	D	A	B	D	C	A

13	14	15	16	17	18	19	20	21	22	23	24
E	A	C	B	E	C	A	D	C	C	C	C

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
C	B	A	B	C	B	A	C	A	A	C	C

13	14	15	16	17	18	19	20	21	22	23	24
D	D	D	E	B	D	C	B	C	E	A	D

25	26	27	28	29	30	31	32	33	34	35	36
D	B	B	D	D	B	B	D	E	C	A	A

IRANINOVIN

TRIANGLE SIMILARITIES

ÜÇGENDE BENZERLİK

TEST 3A

1	2	3	4	5	6	7	8	9	10	11	12
C	A	D	C	B	A	A	C	B	D	D	C

TEST 3B

1	2	3	4	5	6	7	8	9	10	11	12
B	C	E	E	C	C	C	C	B	E	C	C

NOTES:

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NOTES:

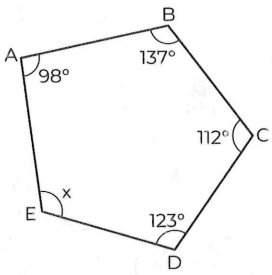
POLYGONS

ÇOKGENLER

CHAPTER | BÖLÜM 10

IRANINOVIN

1.



ABCDE **beşgen** (pentagon)

$m(\widehat{BAE}) = 98°$, $m(\widehat{BCD}) = 112°$, $m(\widehat{CDE}) = 123°$,

$m(\widehat{ABC}) = 137°$, $m(\widehat{AED}) = x \Rightarrow x = ?$

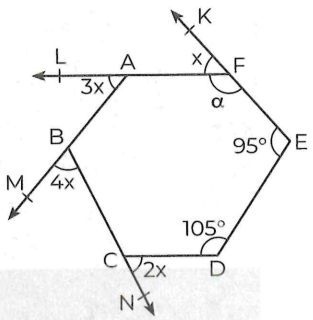
A) 65 B) 70 C) 75 D) 80 E) 85

2. **9 kenarlı bir çokgenin iç açıları toplamı kaç derecedir?**

What is the sum of the interior angles of a 9 sided polygon?

A) 540 B) 720 C) 900 D) 1080 E) 1260

3.



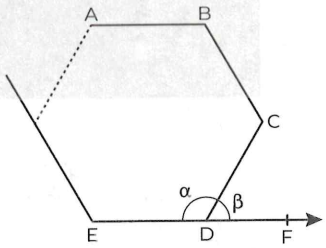
$m(\widehat{KED}) = 95°$, $m(\widehat{EDC}) = 105°$, $m(\widehat{KFL}) = x$

$m(\widehat{NCD}) = 2x$, $m(\widehat{LAB}) = 3x$, $m(\widehat{MBC}) = 4x$

$m(\widehat{AFE}) = \alpha \Rightarrow \alpha = ?$

A) 120 B) 130 C) 140 D) 150 E) 160

4.



...ABCDE... **düzgün çokgen** (regular polygon)

$m(\widehat{CDE}) = \alpha$, $m(\widehat{CDF}) = \beta$, $\alpha = 4\beta$

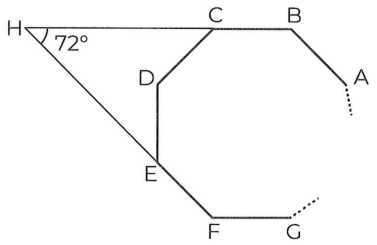
$\Rightarrow$ **Düzgün çokgen kaç kenarlıdır?**

How many sides does a regular polygon have?

A) 8 B) 9 C) 10 D) 11 E) 12

PUZA ACADEMY

5.



...ABCD... **düzgün çokgen** (regular polygon)

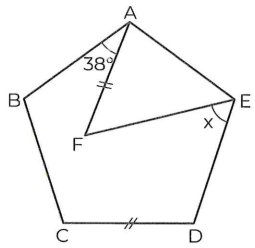
$m(\widehat{BHE}) = 72°$

⇒ **Çokgenin kenar sayısı kaçtır?**

How many edges does a regular polygon have?

A) 6 B) 7 C) 8 D) 10 E) 12

7.



ABCDE **düzgün beşgen** (regular pentagon)

$|AF| = |CD|$, $m(\widehat{BAF}) = 38°$, $m(\widehat{FED}) = x$

$\Rightarrow x = ?$

A) 45 B) 48 C) 50 D) 52 E) 53

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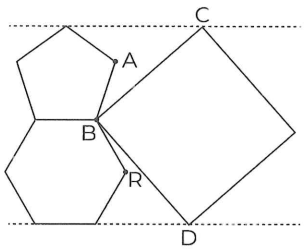
PUZA ACADEMY

6.



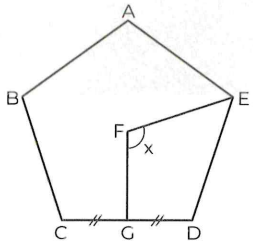
$m(\widehat{RBD}) = 12° \Rightarrow m(\widehat{ABC}) = ?$

Şekilde bir kare, bir düzgün beşgen ve bir düzgün altıgen vardır.

The figure has a square, a regular pentagon and a regular hexagon.

A) 22 B) 24 C) 26 D) 28 E) 30

8.



ABCDE **düzgün beşgen** (regular pentagon)

F ağırlık merkezi (center of gravity)

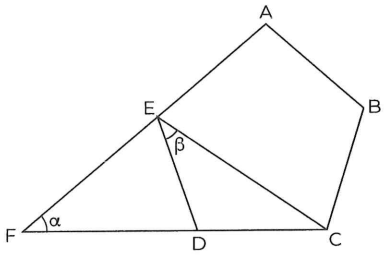
$|CG| = |GD|$, $m(\widehat{EFG}) = x$

$\Rightarrow x = ?$

A) 108 B) 104 C) 96 D) 90 E) 84

IRANINOVIN

9.



ABCDE **düzgün beşgen** (regular pentagon)

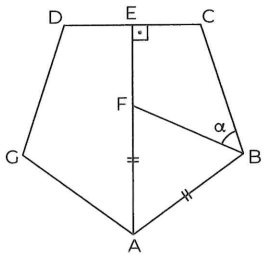
F, D, C ve A, E, F **doğrusal** (linear)

$m(\widehat{AFC}) = \alpha$, $m(\widehat{DEC}) = \beta$

$\Rightarrow \alpha + \beta = ?$

A) 36 B) 54 C) 72 D) 90 E) 108

10.



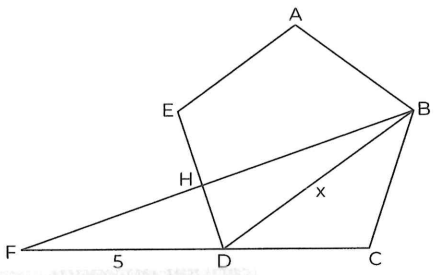
ABCDE **düzgün beşgen** (regular pentagon)

$|AF| = |AB|$, $[AE] \perp [DC]$, $m(\widehat{CBF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 45 C) 60 D) 75 E) 90

11.



ABCDE **düzgün beşgen** (regular pentagon)

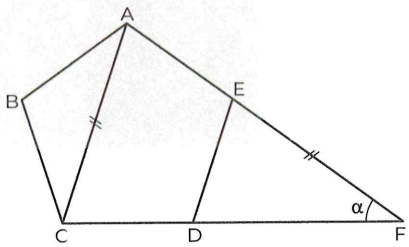
B, H, F ve C, D, F **doğrusal** (linear)

$3 \cdot |FH| = |BH|$, $|FD| = 5$ br, $|BD| = x$

$\Rightarrow x = ?$

A) 10 B) 12 C) 15 D) 20 E) 25

12.



ABCDE **düzgün beşgen** (regular pentagon)

A, E, F **doğrusal** (linear)

C, D, F **doğrusal** (linear)

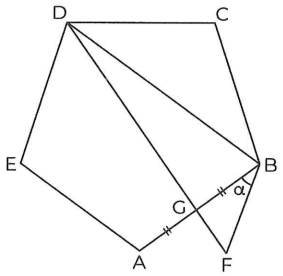
$|AC| = |EF|$, $m(\widehat{AFC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 28 B) 36 C) 38 D) 40 E) 42

PUZA ACADEMY

13.



ABCDE **düzgün beşgen** (regular pentagon)

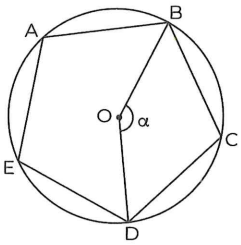
$|BG| = |GA|$, $|BD| = |DF|$

$m(\widehat{ABF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 9 B) 12 C) 15 D) 18 E) 24

14.



ABCDE **düzgün beşgen** (regular pentagon)

O merkezli çevrel çember

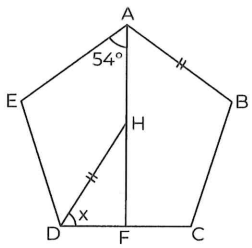
O, is the center of circle

$m(\widehat{BOD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 120 B) 124 C) 136 D) 144 E) 150

15.



ABCDE **düzgün beşgen** (regular pentagon)

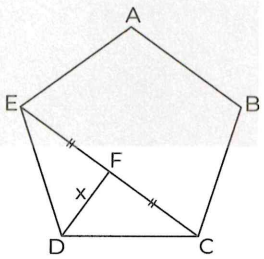
$m(\widehat{EAF}) = 54°$, $|AB| = |DH|$

$m(\widehat{HDC}) = x$

$\Rightarrow x = ?$

A) 30 B) 48 C) 54 D) 60 E) 72

16.



ABCDE **düzgün beşgen** (regular pentagon)

$|EF| = |FC|$, $|DF| = x$, $|AB| = 6$ br

Bir köşegen uzunluğunun bir kenar uzunluğuna oranı $\frac{\sqrt{3}}{3}$

The ratio of the length of a diagonal to the length of a side is $\frac{\sqrt{3}}{3}$

$\Rightarrow x = ?$

A) $2\sqrt{3}$ B) 4 C) $4\sqrt{2}$ D) $\sqrt{33}$ E) $6\sqrt{3}$

PUZA ACADEMY

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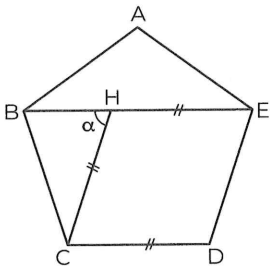
IRANINOVIN

17.



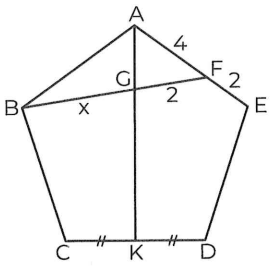
ABCDE **düzgün beşgen** (regular pentagon)

$|HE| = |HC| = |CD|$, $m(\widehat{BHC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 108 B) 72 C) 68 D) 64 E) 56

18.



ABCDE **düzgün beşgen** (regular pentagon)

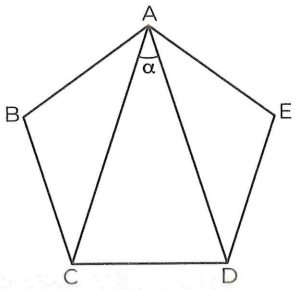
$|CK| = |KD|$, $|AF| = 4$ br, $|FE| = 2$ br, $|GF| = 2$ br

$|BG| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

19.



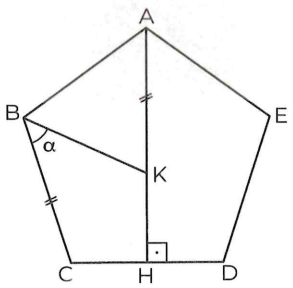
ABCDE **düzgün beşgen** (regular pentagon)

$m(\widehat{DAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 18 B) 32 C) 36 D) 48 E) 52

20.



ABCDE **düzgün beşgen** (regular pentagon)

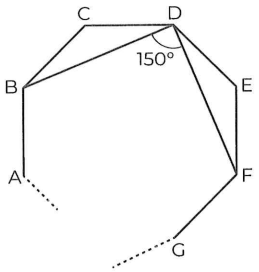
$[AH] \perp [CD]$, $|AK| = |BC|$, $m(\widehat{KBC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 40 B) 45 C) 50 D) 54 E) 60

PUZA ACADEMY

21.



...ABCD... **düzgün çokgen** (regular polygon)

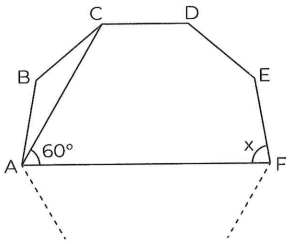
$m(\widehat{BDF}) = 150°$

⇒ **Düzgün çokgen kaç kenarlıdır?**

How many sides does a regular polygon have?

A) 12 B) 15 C) 18 D) 20 E) 24

22.



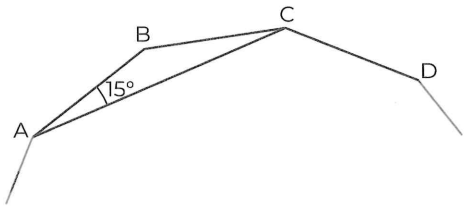
ABCDEF... **düzgün çokgen** (regular polygon)

$m(\widehat{CAF}) = 60°$, $m(\widehat{EFA}) = x$

⇒ $x = ?$

A) 50 B) 60 C) 70 D) 75 E) 80

23.



$m(\widehat{BAC}) = 15°$

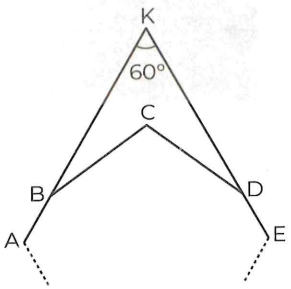
⇒ **Düzgün çokgen kaç kenarlıdır?**

(How many edges does a regular polygon have?)

A) 9 B) 10 C) 12 D) 14 E) 15

PUZA ACADEMY

24.



$m(\widehat{BKD}) = 60°$

A, B, K **doğrusal** (linear)

K, D, E **doğrusal** (linear)

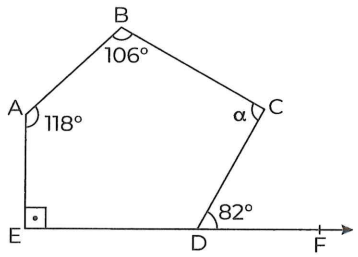
⇒ **ABCDE... düzgün çokgeni kaç kenarlıdır?**

(How many edges does a regular polygon ABCDE... have?)

A) 12 B) 10 C) 9 D) 8 E) 6

IRANINOVIN

1.



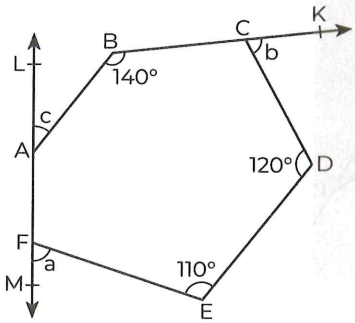
[AE] ⊥ [EF], $m(\widehat{CDF}) = 82°$, $m(\widehat{ABC}) = 106°$

$m(\widehat{EAB}) = 118°$, $m(\widehat{BCD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 96 B) 98 C) 104 D) 116 E) 128

2.



$m(\widehat{ABC}) = 140°$, $m(\widehat{CDE}) = 120°$, $m(\widehat{DEF}) = 110°$

$a + b + c = k \cdot 10°$

$\Rightarrow k = ?$

A) 12 B) 15 C) 16 D) 18 E) 19

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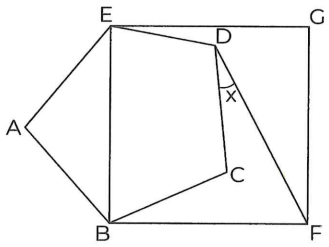
PUZA ACADEMY

3.



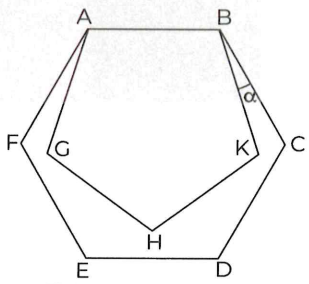
ABCDE **düzgün çokgen** (regular polygon)

BFGE **kare** (square), $m(\widehat{CDF}) = x$

$\Rightarrow x = ?$

A) 27 B) 28 C) 30 D) 32 E) 33

4.



ABCDEF **düzgün altıgen** (regular hexagon)

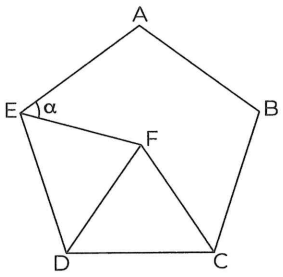
ABKHG **düzgün beşgen** (regular pentagon)

$m(\widehat{KBC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 12 B) 16 C) 18 D) 22 E) 32

5.



ABCDE **düzgün beşgen** (regular pentagon)

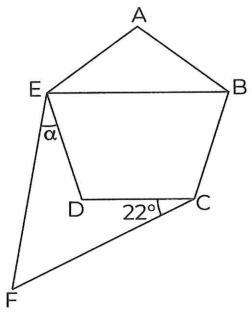
FDC **eşkenar üçgen** (equilateral triangle)

$m(\widehat{AEF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 32 B) 36 C) 38 D) 42 E) 48

6.



ABCDE **düzgün beşgen** (regular pentagon)

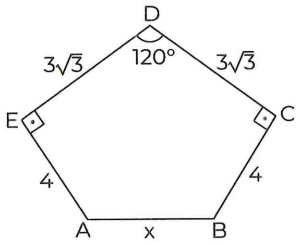
$|EB| = |EF|$, $m(\widehat{DCF}) = 22°$

$m(\widehat{FED}) = \alpha$

$\Rightarrow \alpha = ?$

A) 22 B) 24 C) 28 D) 32 E) 36

7.



ABCDE **beşgen** (pentagon)

$[DE] \perp [EA]$, $[DC] \perp [CB]$, $m(\widehat{EDC}) = 120°$

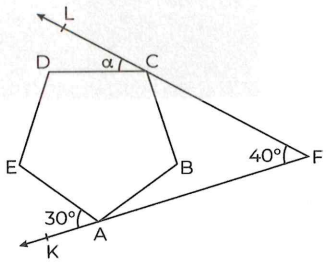
$|DE| = |DC| = 3\sqrt{3}$ br, $|EA| = |CB| = 4$ br, $|AB| = x$

$\Rightarrow x = ?$

A) $3\sqrt{2}$ B) $2\sqrt{6}$ C) 5 D) $2\sqrt{3}$ E) 6

PUZA ACADEMY

8.



ABCDE **düzgün beşgen** (regular pentagon)

$m(\widehat{LFK}) = 40°$, $m(\widehat{EAK}) = 30°$

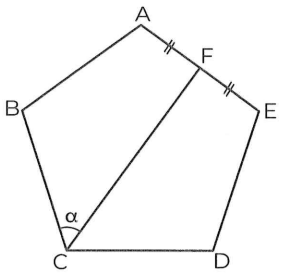
$m(\widehat{LCD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 40 C) 45 D) 46 E) 54

IRANINOVIN

9.



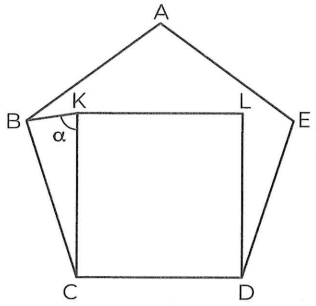
ABCDE **düzgün beşgen** (regular pentagon)

$|AF| = |FE|$, $m(\widehat{BCF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 18 B) 32 C) 48 D) 54 E) 72

10.



ABCDE **düzgün beşgen** (regular pentagon)

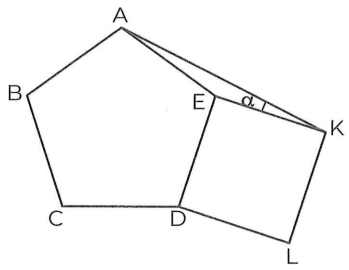
KLDC **kare** (square)

$m(\widehat{BKC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 68 B) 72 C) 76 D) 78 E) 81

11.



ABCDE **düzgün beşgen** (regular pentagon)

KLDE **kare** (square)

$m(\widehat{AKE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 8 B) 9 C) 12 D) 15 E) 18

PUZA ACADEMY

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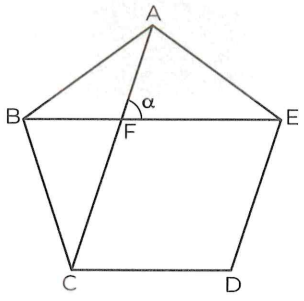
12.



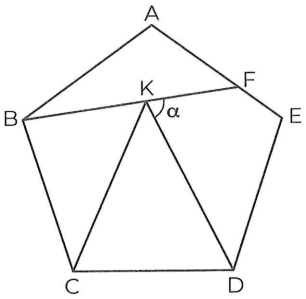
ABCDE **düzgün beşgen** (regular pentagon)

$m(\widehat{AFE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 32 B) 36 C) 48 D) 72 E) 108

13.



ABCDE **düzgün beşgen** (regular pentagon)

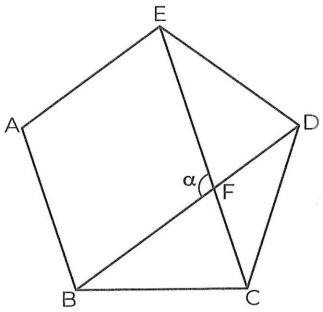
KCD **eşkenar üçgen** (equilateral triangle)

$m(\widehat{FKD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 81 B) 80 C) 72 D) 56 E) 54

14.



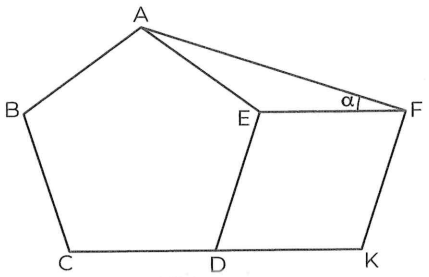
ABCDE **düzgün beşgen** (regular pentagon)

$[EC] \cap [BD] = \{F\}$, $m(\widehat{EFB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 105 B) 108 C) 115 D) 120 E) 135

15.



ABCDE **düzgün beşgen** (regular pentagon)

DEFK **eşkenar dörtgen** (rhombus)

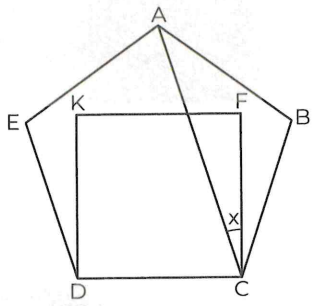
$m(\widehat{AFE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 18 C) 16 D) 14 E) 12

PUZA ACADEMY

16.



ABCDE **düzgün beşgen** (regular pentagon)

DCFK **kare** (square)

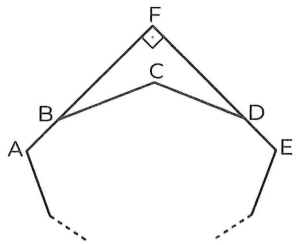
$m(\widehat{ACF}) = x$

$\Rightarrow x = ?$

A) 9 B) 18 C) 36 D) 72 E) 108

IRANINOVIN

17.



ABCD... **düzgün çokgen** (regular polygon)

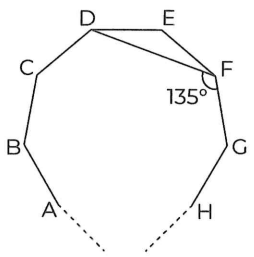
[AF] ⊥ [EF]

⇒ **Çokgenin tüm köşegenlerinin sayısı kaçtır?**

What is the number of all diagonals of the polygon?

A) 36 B) 40 C) 54 D) 62 E) 70

18.



...ABCD... **düzgün çokgen** (regular polygon)

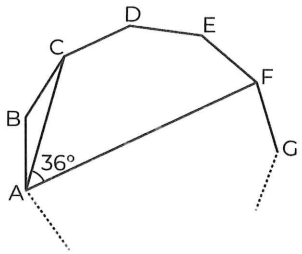
$m(\widehat{GFD}) = 135°$

⇒ **Çokgen kaç kenarlıdır?**

How many sides does the polygon have?

A) 9 B) 12 C) 15 D) 18 E) 20

19.



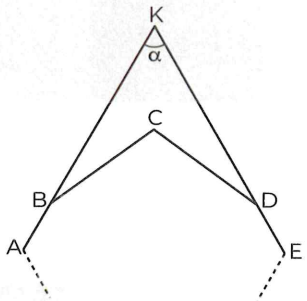
$m(\widehat{CAF}) = 36°$

⇒ **Düzgün çokgen kaç kenarlıdır?**

How many edges does a regular polygon have?

A) 15 B) 13 C) 12 D) 10 E) 9

20.



ABCDE... **düzgün onikigen**

regular dodetcagon

K, B, A **doğrusal** (linear)

K, D, E **doğrusal** (linear)

$m(\widehat{AKE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 120 B) 110 C) 90 D) 80 E) 60

PUZA ACADEMY

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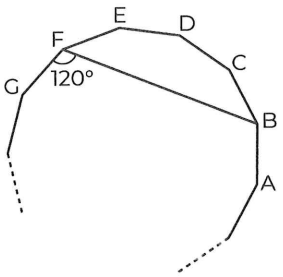
21.



ABCD... **düzgün çokgen** (regular polygon)

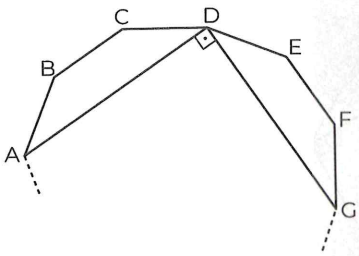
$m(\widehat{BFG}) = 120°$

⇒ **Düzgün çokgen kaç kenarlıdır?**

How many edges does a regular polygon have?

A) 15 B) 27 C) 54 D) 72 E) 90

22.



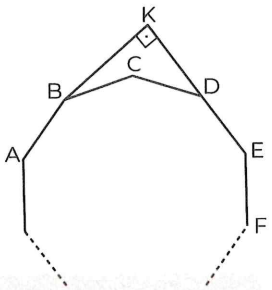
[AD] ⊥ [GD]

⇒ **Düzgün çokgen kaç kenarlıdır?**

How many edges does a regular polygon have?

A) 20 B) 18 C) 16 D) 14 E) 12

23.



...ABCDEF... **düzgün çokgen** (regular polygon)

[AK] ⊥ [KE]

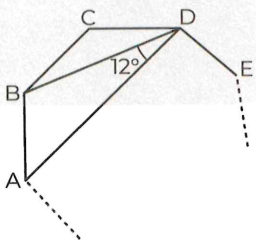
⇒ **Düzgün çokgen kaç kenarlıdır?**

How many edges does a regular polygon have?

A) 8 B) 9 C) 10 D) 12 E) 14

PUZA ACADEMY

24.



ABCDE... **düzgün çokgen** (regular polygon)

$m(\widehat{BDA}) = 12°$

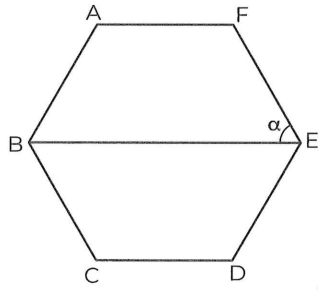
⇒ **Düzgün çokgen kaç kenarlıdır?**

How many edges does a regular polygon have?

A) 24 B) 22 C) 18 D) 15 E) 12

IRANINOVIN

1.



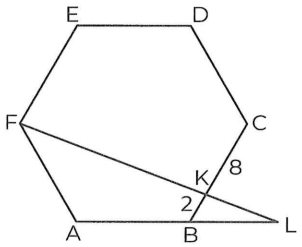
ABCDEF **düzgün altıgen** (regular hexagon)

$m(\widehat{FEB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 110 B) 90 C) 80 D) 60 E) 30

2.



ABCDE **düzgün altıgen** (regular hexagon)

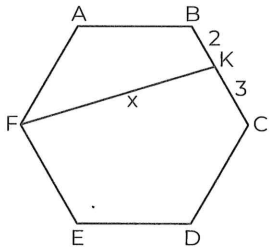
F, K, L **doğrusal** (linear)

$|BK| = 2$ br, $|KC| = 8$ br

$\Rightarrow |AL| = ?$

A) 13 B) 14 C) 15 D) 16 E) 17

3.



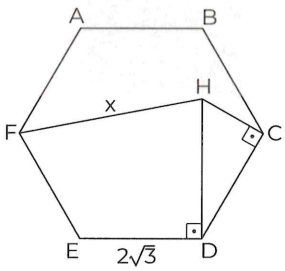
ABCDEF **düzgün altıgen** (regular hexagon)

$|BK| = 2$ br, $|KC| = 3$ br, $|FK| = x$

$\Rightarrow x = ?$

A) $3\sqrt{6}$ B) 8 C) $6\sqrt{2}$ D) $\sqrt{74}$ E) $\sqrt{79}$

4.



ABCDEF **düzgün altıgen** (regular hexagon)

$[DC] \perp [CH]$, $[HD] \perp [ED]$, $|ED| = 2\sqrt{3}$ br, $|FH| = x$

$\Rightarrow x = ?$

A) $4\sqrt{3}$ B) $2\sqrt{7}$ C) $3\sqrt{5}$ D) 5 E) 6

PUZA ACADEMY

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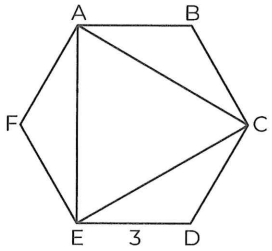
5.



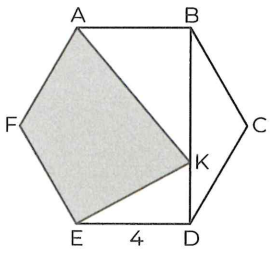
ABCDEF **düzgün altıgen** (regular hexagon)

$|ED| = 3$ br

⇒ **Çevre** (Perimeter)$(\widehat{AEC}) = ?$

A) 9 B) $6\sqrt{3}$ C) $9\sqrt{3}$ D) 12 E) $12\sqrt{3}$

6.



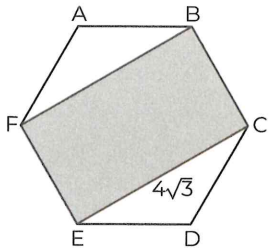
ABCDEF **düzgün altıgen** (regular hexagon)

$K \in [BD]$, $|ED| = 4$ br

⇒ **Alan** (Area)(AFEK) = ?

A) $112\sqrt{3}$ B) 16 C) $16\sqrt{3}$ D) 18 E) $20\sqrt{3}$

7.



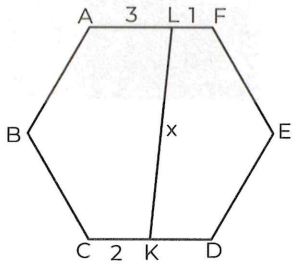
ABCDEF **düzgün altıgen** (regular hexagon)

$|EC| = 4\sqrt{3}$ br

⇒ **Alan** (Area)(BCEF) = ?

A) 8 B) $8\sqrt{3}$ C) $12\sqrt{3}$ D) $16\sqrt{3}$ E) 32

8.



ABCDEF **düzgün altıgen** (regular hexagon)

$|AL| = 3$ br, $|LF| = 1$ br, $|CK| = 2$ br, $|KL| = x$

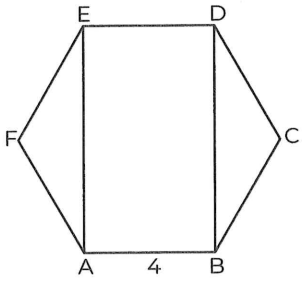
⇒ $x = ?$

A) 2 B) $3\sqrt{5}$ C) $2\sqrt{7}$ D) 6 E) 7

PUZA ACADEMY

IRANINOVIN

9.



ABCDEF **düzgün altıgen** (regular hexagon)

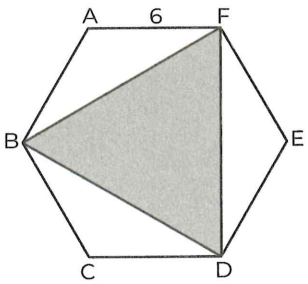
|AB| = 4 br

⇒ **Çevre** (Perimeter)(ABDE) = ?

A) $8\sqrt{3}+8$ B) $4\sqrt{3}$ C) $8\sqrt{3}$

D) $6\sqrt{3}+4$ E) $6\sqrt{3}$

10.



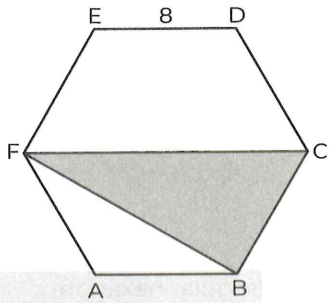
ABCDEF **düzgün altıgen** (regular hexagon)

|AF| = 6 br ⇒ **Alan** (Area)($\overset{\frown}{BDF}$) = ?

A) $36\sqrt{3}$ B) $27\sqrt{3}$ C) $18\sqrt{3}$

D) $9\sqrt{3}$ E) $3\sqrt{3}$

11.



ABCDEF **düzgün altıgen** (regular hexagon)

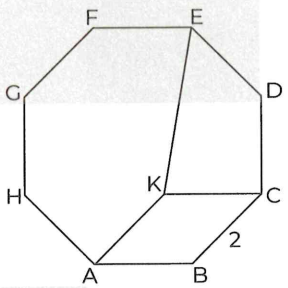
|ED| = 8 br

⇒ **Alan** (Area)($\overset{\frown}{FBC}$) = ?

A) $32\sqrt{3}$ B) $27\sqrt{3}$ C) 45

D) $36\sqrt{2}$ E) $48\sqrt{3}$

12.



ABCDEFGH **düzgün sekizgen**

(regular octagon)

ABCK **eşkenar dörtgen** (rhambus)

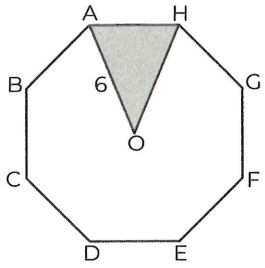
|BC| = 2 br

⇒ $\frac{|EK|}{|AB|}$ = ?

A) $\sqrt{2}$ B) $\sqrt{3}$ C) $2\sqrt{2}$ D) $2\sqrt{3}$ E) $3\sqrt{2}$

PUZA ACADEMY

13.



ABCDEFGH **düzgün sekizgen** (regular octagonal)

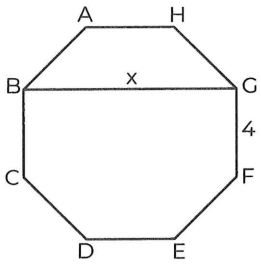
O ağırlık merkezi (center of gravity)

$|AO| = 6$ br

$\Rightarrow$ **Alan** (Area)$(\widehat{AOH}) = ?$

A) $24\sqrt{2}$ B) 24 C) $18\sqrt{2}$ D) 18 E) $9\sqrt{2}$

14.



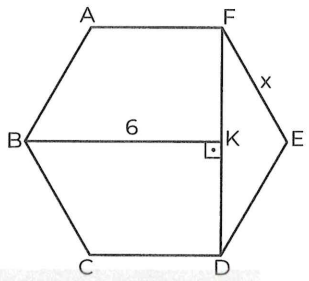
ABCDEFGH **düzgün sekizgen** (regular octagonal)

$|GF| = 4$ br

$\Rightarrow x = ?$

A) $8\sqrt{2} + 4$ B) $4\sqrt{2} + 8$ C) $4\sqrt{2} + 4$
D) $4\sqrt{2} - 2$ E) $4\sqrt{2} + 16$

15.



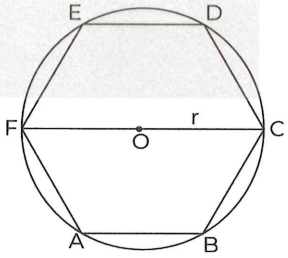
ABCDEF **düzgün altıgen** (regular hexagon)

$[BK] \perp [FD]$, $|BK| = 6$ br, $|FE| = x$

$\Rightarrow x = ?$

A) 12 B) 8 C) 6 D) 4 E) 2

16.



$|AB| = |BC| = |CD| = |DE| = |EF| = |FA|$

Alan (Area)(ABCDEF) $= \frac{27\sqrt{3}}{8}$ br^2, $|FC| = 2r$

$|OC| = r$

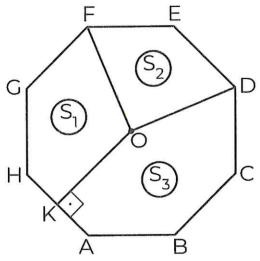
$\Rightarrow r = ?$

A) $\frac{9}{2}$ B) $\frac{3}{2}$ C) 3 D) 6 E) 9

PUZA ACADEMY

IRANINOVIN

17.



ABCD... **düzgün sekizgen** (regular octagon)

O, düzgün sekizgenin dış teğet çemberinin merkezi,

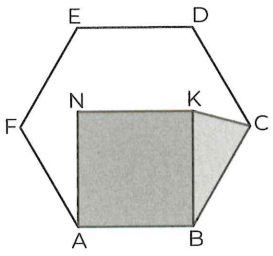
O, is the center of the escribed circle of the octogonal polygons,

$[OK] \perp [AH]$, $S_3 - S_1 = 10\ br^2$

$\Rightarrow S_2 = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

18.



ABKN **kare** (square)

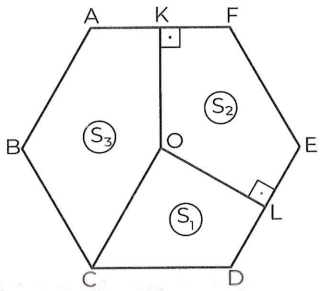
ABCDEF **düzgün altıgen** (regular hexagon)

Alan (Area)(ABKN) = k · **Alan** (Area)($\widehat{BCK}$)

$\Rightarrow k = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

19.



ABCDEF **düzgün altıgen** (regular hexagon)

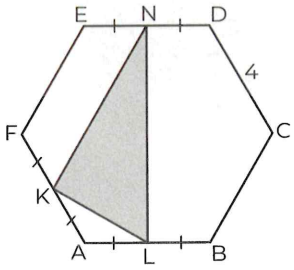
O ağırlık merkezi (center of gravity)

$[OL] \perp [DE]$, $[OK] \perp [AF]$

$\Rightarrow \frac{S_1 + S_2}{S_3} = ?$

A) 4 B) 3 C) 2 D) $\frac{8}{5}$ E) $\frac{7}{5}$

20.



ABCDEF **düzgün altıgen** (regular hexagon)

|DC| = 4 br

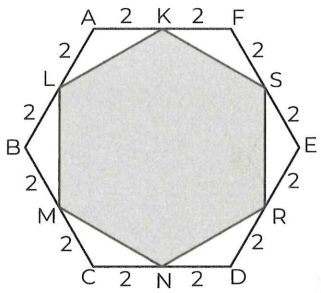
K, L, N **orta nokta** (midpoint)

$\Rightarrow$ **Alan** (Area)($\widehat{KNL}$) = ?

A) 3 B) $3\sqrt{3}$ C) 5 D) $6\sqrt{3}$ E) $8\sqrt{3}$

PUZA ACADEMY

21.

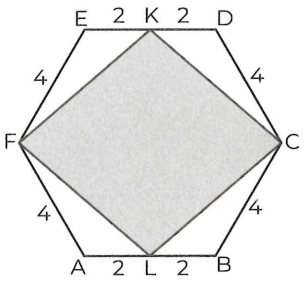


ABCDEF **düzgün altıgen** (regular hexagon)

⇒ **Alan** (Area)(KLMNRS) = ?

A) $24\sqrt{3}$ B) 24 C) $18\sqrt{3}$ D) 18 E) $12\sqrt{3}$

22.



ABCDEF **düzgün altıgen** (regular hexagon)

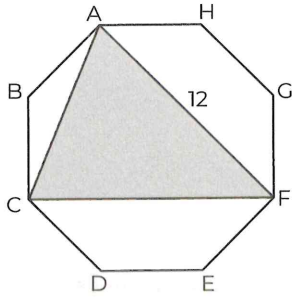
K ve L **orta nokta** (midpoint)

|AB| = 4 br

⇒ **Alan** (Area)(KFLC) = ?

A) 64 B) $32\sqrt{3}$ C) 32 D) $16\sqrt{3}$ E) 16

23.



ABCDEFGH **düzgün sekizgen** (regular octagonal)

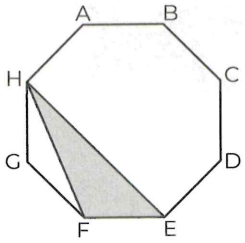
|AF| = 12 br

⇒ **Alan** (Area)($\widehat{ACF}$) = ?

A) $36\sqrt{2}$ B) 36 C) $24\sqrt{2}$ D) 24 E) $18\sqrt{2}$

PUZA ACADEMY

24.



ABCDEFGH **düzgün sekizgen** (regular hexagon)

|FE| = 3 br

⇒ **Alan** (Area)($\widehat{FEH}$) = ?

A) $6\sqrt{3}$ B) $3 + 3\sqrt{3}$ C) $\frac{9\sqrt{2}+9}{2}$ D) $\frac{9\sqrt{2}}{4}+\frac{9}{2}$ E) $3 + 6\sqrt{3}$

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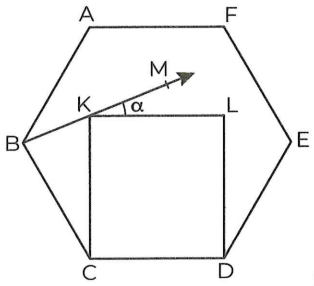
IRANINOVIN

1.



ABCDEF **düzgün altıgen** (regular hexagon)

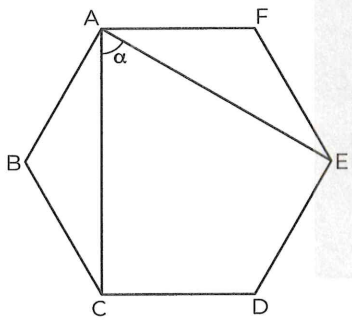
CDLK **kare** (square), B, K, M **doğrusal** (linear)

$m(\widehat{MKL}) = \alpha$

$\Rightarrow \alpha = ?$

A) 15 B) 16 C) 18 D) 24 E) 30

2.



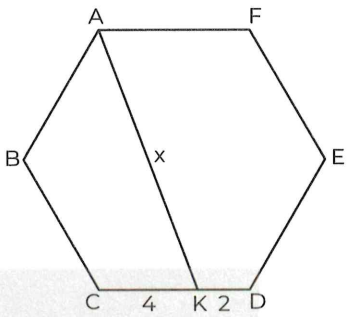
ABCDEF **düzgün altıgen** (regular hexagon)

$m(\widehat{CAE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 120 B) 90 C) 60 D) 45 E) 30

3.



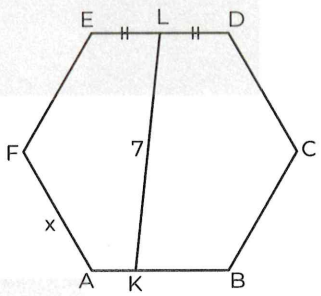
ABCDEF **düzgün altıgen** (regular hexagon)

$|CK| = 4$ br, $|KD| = 2$ br, $|AK| = x$

$\Rightarrow x = ?$

A) $2\sqrt{31}$ B) 10 C) $3\sqrt{10}$ D) 9 E) $6\sqrt{2}$

4.



ABCDEF **düzgün altıgen** (regular hexagon)

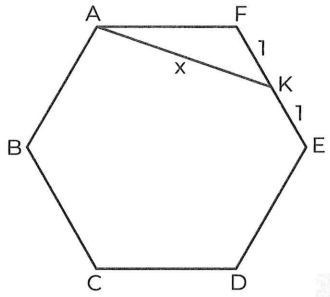
$|KB| = 3|KA|$, $|EL| = |LD|$, $|KL| = 7$ br, $|AF| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 4,5 D) 5 E) 6

PUZA ACADEMY

5.



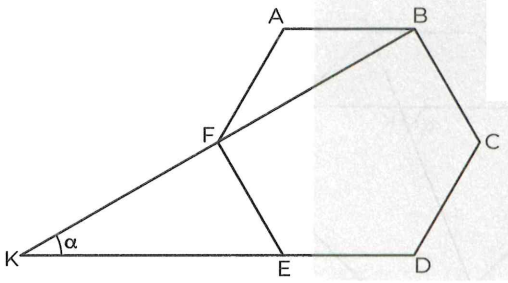
ABCDEF **düzgün altıgen** (regular hexagon)

$|FK| = |KE| = 1$ br, $|AK| = x$

$\Rightarrow x = ?$

A) $\sqrt{5}$ B) $\sqrt{7}$ C) $\sqrt{8}$ D) $\sqrt{11}$ E) $\sqrt{13}$

6.



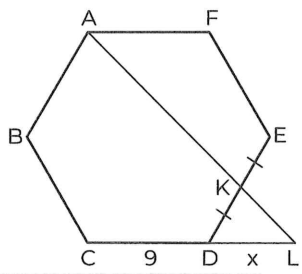
ABCDEF **düzgün altıgen** (regular hexagon)

$m(\widehat{BKD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 120 B) 60 C) 30 D) 15 E) 5

7.



ABCDEF **düzgün altıgen** (regular hexagon)

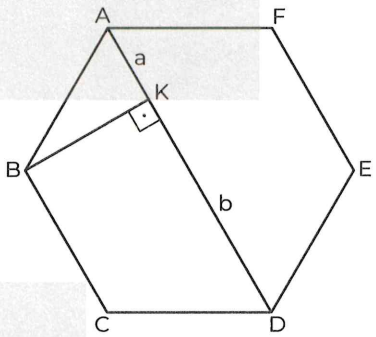
A, K, L **doğrusal** (linear)

$|EK| = |KD|$, $|DL| = x$, $|CD| = 9$ br

$\Rightarrow x = ?$

A) 3 B) 4 C) 6 D) 8 E) 9

8.



ABCDEF **düzgün altıgen** (regular hexagon)

$[BK] \perp [AD]$, $|AK| = a$, $|KD| = b$

$\Rightarrow \frac{a}{b} = ?$

A) 3 B) $\frac{5}{2}$ C) 1 D) $\frac{1}{2}$ E) $\frac{1}{3}$

PUZA ACADEMY

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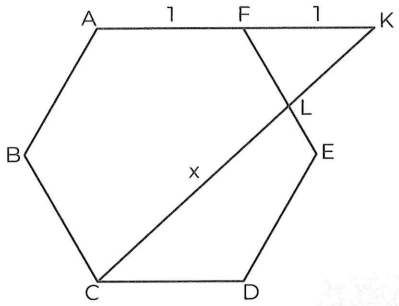
IRANINOVIN

9.



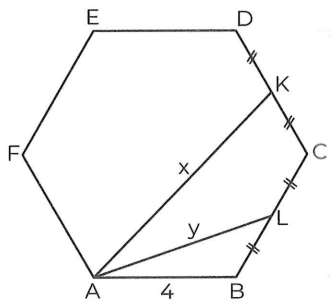
ABCDEF **düzgün altıgen** (regular hexagon)

$|AF| = 1$ br, $|FK| = 1$ br, $|LC| = x$

$\Rightarrow x = ?$

A) $\frac{\sqrt{7}}{3}$ B) $\frac{2\sqrt{7}}{3}$ C) 2 D) $\sqrt{6}$ E) $\sqrt{7}$

10.



ABCDEF **düzgün altıgen** (regular hexagon)

K ve L **orta nokta** (midpoint)

$|AK| = x$, $|AL| = y$

$\Rightarrow \frac{x}{y} = ?$

A) $\sqrt{\frac{5}{2}}$ B) $\sqrt{\frac{7}{2}}$ C) $\sqrt{\frac{13}{7}}$ D) $\sqrt{\frac{1}{2}}$ E) $\sqrt{\frac{15}{7}}$

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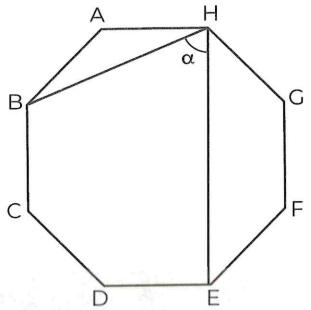
11.



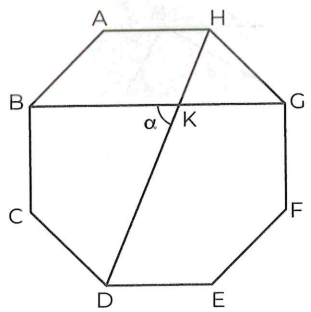
ABCDEFGH **düzgün sekizgen** (regular octagonal)

$m(\widehat{BHE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 90 B) 75 C) 67,5 D) 60 E) 47,5

12.



ABCDEFGH **düzgün sekizgen** (regular octagonal)

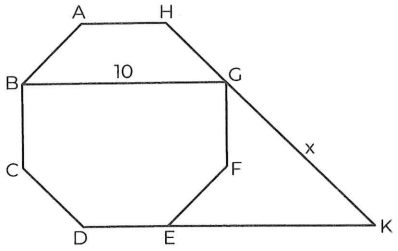
$[BG] \cap [HD] = \{K\}$, $m(\widehat{BKD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 80 B) 75 C) 67,5 D) 60 E) 47,5

PUZA ACADEMY

13.



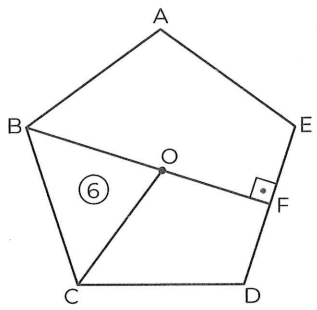
ABCDEFGH **düzgün sekizgen** (regular octagonal)

$|BG| = 10$ br, $|GK| = x$

$\Rightarrow x = ?$

A) $10\sqrt{2}$ B) 10 C) $5\sqrt{2}$ D) 5 E) $4\sqrt{2}$

14.



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ABCDE **düzgün beşgen** (regular pentagon)

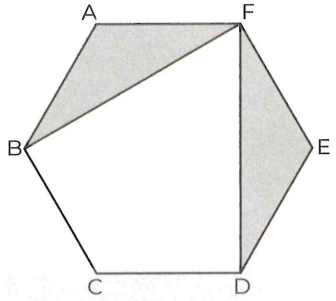
O ağırlık merkezi (center of gravity)

$[BF] \perp [ED]$, **Alan** (Area)$(\widehat{OBC}) = 6$ br^2

$\Rightarrow$ **Alan** (Area)(COFD) = ?

A) 3 B) 6 C) 9 D) 12 E) 15

15.



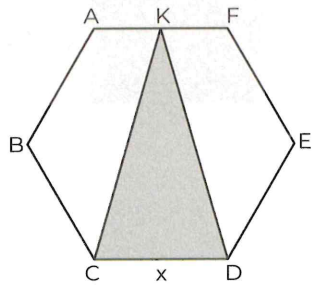
ABCDEF **düzgün altıgen** (regular hexagon)

Alan (Area)$(\widehat{ABF})$ + **Alan** (Area)$(\widehat{DEF}) = 8\sqrt{3}$ br^2

$\Rightarrow$ **Çevre** (Perimeter)(ABCDEF) = ?

A) 32 B) 30 C) 28 D) 26 E) 24

16.



ABCDEF **düzgün altıgen** (regular hexagon)

Alan (Area)$(\widehat{KCD}) = 2\sqrt{3}$ br^2, $|CD| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

PUZA ACADEMY

IRANINOVIN

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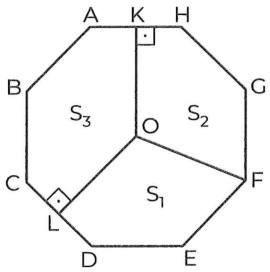
17.



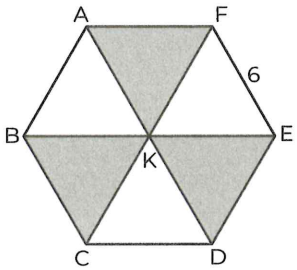
ABCDEFGH **düzgün sekizgen** (regular octagonal)

O ağırlık merkezi (center of gravity)

$\Rightarrow \frac{S_2 + S_3}{S_1} = ?$

A) $\frac{2}{5}$ B) $\frac{1}{3}$ C) $\frac{4}{3}$ D) $\frac{7}{3}$ E) $\frac{11}{5}$

18.



ABCDEF **düzgün altıgen** (regular hexagon)

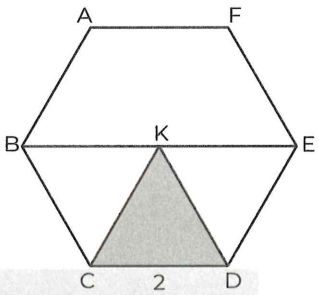
$|FE| = 6$ br

$\Rightarrow$ **Alan** (Area)$(\widehat{AFK})$ + **Alan** (Area)$(\widehat{BKC})$ + **Alan** (Area)$(\widehat{KED}) = ?$

A) $27\sqrt{3}$ B) $25\sqrt{3}$ C) 24

D) $24\sqrt{3}$ E) $18\sqrt{3}$

19.



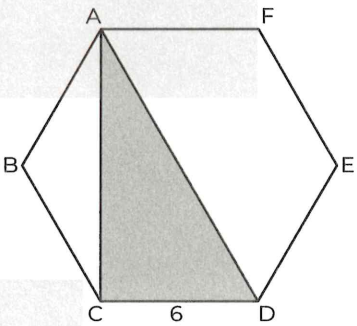
ABCDEF **düzgün altıgen** (regular hexagon)

$|CD| = 2$ br

$\Rightarrow$ **Alan** (Area)$(\widehat{KCD}) = ?$

A) $\sqrt{3}$ B) 3 C) $2\sqrt{3}$ D) 4 E) $4\sqrt{3}$

20.



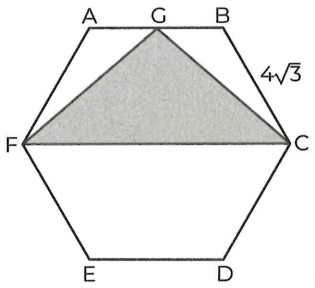
ABCDEF **düzgün altıgen** (regular hexagon)

$|CD| = 6$ br $\Rightarrow$ **Alan** (Area)$(\widehat{ACD}) = ?$

A) $24\sqrt{3}$ B) 24 C) $18\sqrt{3}$ D) 18 E) $9\sqrt{3}$

PUZA ACADEMY

21.



ABCDEF **düzgün altıgen** (regular hexagon)

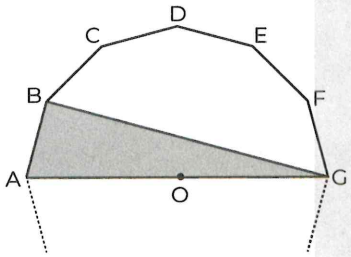
$|BC| = 4\sqrt{3}$ br

⇒ **Alan**(Area) ($\widehat{FGC}$) = ?

A) 6 B) $6\sqrt{3}$ C) 12

D) $12\sqrt{3}$ E) $24\sqrt{3}$

22.



ABCDEFG... **düzgün onikigen** (regular dodecagon)

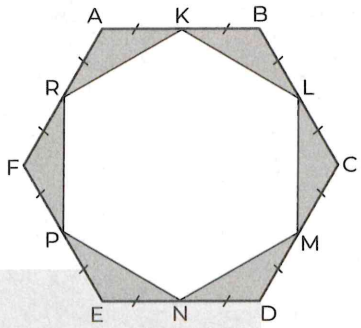
$|AG| = 12$ br

⇒ **Alan** (Area) ($\widehat{ABG}$) = ?

A) 9 B) 12 C) 16 D) 18 E) 36

PUZA ACADEMY

23.



ABCDEF **düzgün altıgen** (regular hexagon)

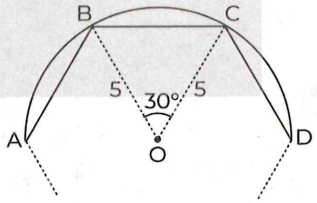
Çevre (Circumference) (KLMNPR) = 48 br

⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) 18 B) $16\sqrt{2}$ C) $18\sqrt{3}$ D) $32\sqrt{3}$ E) $36\sqrt{2}$

24.



ABCD... **düzgün çokgen** (regular polygon)

$m(\widehat{BOC}) = 30°$, $|OB| = 5$ br

⇒ **Alan** (Area) (ABCD...) = ?

A) 50 B) 55 C) 65 D) 75 E) 80

IRANINOVIN

POLYGONS

ÇOKGENLER

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
B	E	E	B	D	E	E	A	C	B	C	B

13	14	15	16	17	18	19	20	21	22	23	24
A	D	D	D	B	C	C	B	E	E	C	C

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
E	E	A	A	D	C	C	D	D	E	B	D

13	14	15	16	17	18	19	20	21	22	23	24
E	B	B	B	C	B	A	C	A	E	D	D

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	E	B	C	A	D	E	A	B	A	B

13	14	15	16	17	18	19	20	21	22	23	24
E	C	D	B	C	C	E	D	C	D	A	D

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
A	C	A	B	B	C	C	E	B	C	C	C

13	14	15	16	17	18	19	20	21	22	23	24
B	C	E	B	E	A	A	C	E	D	C	D

IRANINOVIN

NOTES:

NOTES:

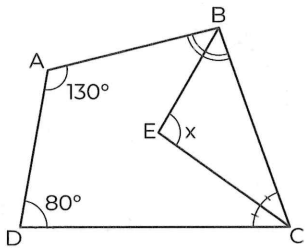
QUADRILATERALS

DÖRTGENLER

CHAPTER | BÖLÜM 11

IRANINOVIN

1.



ABCD **dörtgen** (quadrilateral)

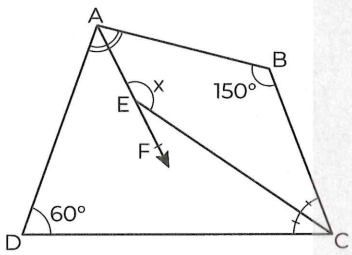
[BE], [CE] **açıortay** (bisector)

$m(\widehat{ADC}) = 80°$, $m(\widehat{BAD}) = 130°$, $m(\widehat{BEC}) = x$

$\Rightarrow x = ?$

A) 90 B) 100 C) 105 D) 110 E) 115

2.



ABCD **dörtgen** (quadrilateral)

$m(\widehat{BAF}) = m(\widehat{FAD})$, $m(\widehat{BCE}) = m(\widehat{ECD})$

$m(\widehat{ABC}) = 150°$, $m(\widehat{ADC}) = 60°$, $m(\widehat{AEC}) = x$

$\Rightarrow x = ?$

A) 75 B) 90 C) 105 D) 120 E) 135

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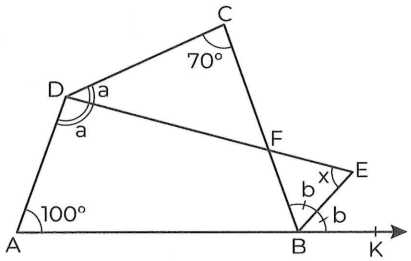
PUZA ACADEMY

3.



ABCD **dörtgen** (quadrilateral)

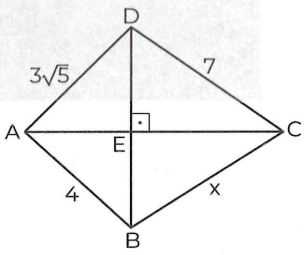
$m(\widehat{CDE}) = m(\widehat{EDA})$, $m(\widehat{CBE}) = m(\widehat{EBK})$

$m(\widehat{DAK}) = 100°$, $m(\widehat{DCB}) = 70°$, $m(\widehat{DEB}) = x$

$\Rightarrow x = ?$

A) 65 B) 70 C) 75 D) 80 E) 85

4.



ABCD **dörtgen** (quadrilateral)

$[DB] \perp [AC]$, $|AB| = 4$ br, $|AD| = 3\sqrt{5}$ br

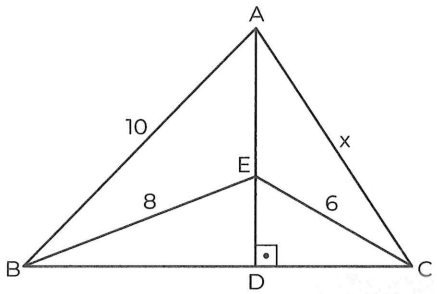
$|DC| = 7$ br, $|CB| = x$

$\Rightarrow x = ?$

A) $2\sqrt{5}$ B) $2\sqrt{6}$ C) 5

D) $2\sqrt{7}$ E) $4\sqrt{2}$

5.

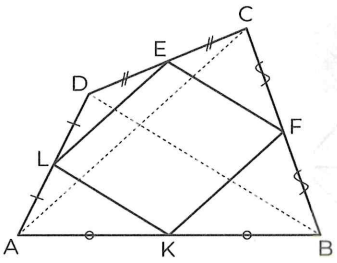


[AD] ⊥ [BC], |AB| = 10 br, |EC| = 6 br, |EB| = 8 br

|AC| = x ⇒ x = ?

A) 5 B) $5\sqrt{3}$ C) 6 D) $6\sqrt{2}$ E) 12

6.



ABCD **dörtgen** (quadrilateral)

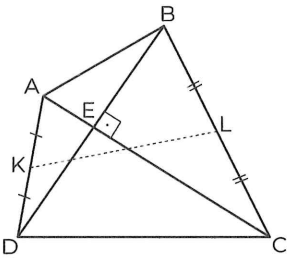
E, F, K, L **orta nokta** (middle point)

|AC| = 16 br, |BD| = 12 br

⇒ **Çevre** (Perimeter)(EFKL) = ?

A) 24 B) 26 C) 28 D) 30 E) 32

7.



ABCD **dörtgen** (quadrilateral)

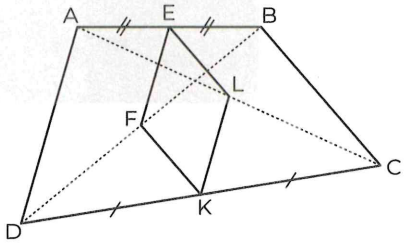
[AC] ⊥ [BD], |AK| = |KD|, |BL| = |LC|

|AC| = 16 br, |BD| = 12 br

⇒ |KL| = ?

A) 8 B) 10 C) 12 D) 15 E) 17

8.



E, K **orta nokta** (midpoint)

|AL| = |LC|, |BF| = |FD|, |FK| + |KL| = 6

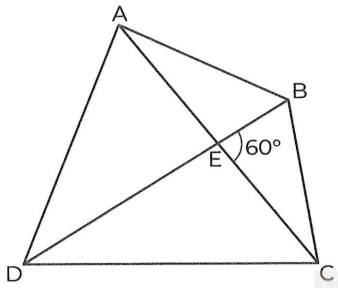
⇒ |AD| + |BC| = ?

A) 6 B) 8 C) 10 D) 12 E) 24

PUZA ACADEMY

IRANINOVIN

9.



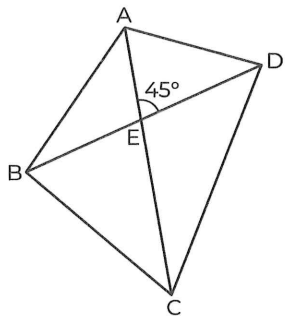
ABCD **dörtgen** (quadrilateral)

$m(\widehat{BEC}) = 60°$, $|AC| = 12$ br, $|BD| = 8$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) $24\sqrt{3}$ C) 48 D) $48\sqrt{3}$ E) 60

10.

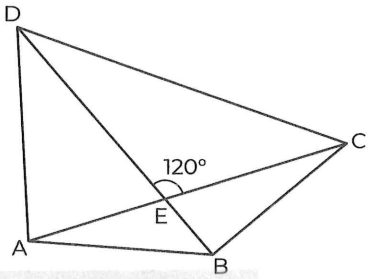


$|AC| = 5$ br, $|BD| = 4$ br, $m(\widehat{AED}) = 45°$

⇒ **Alan** (Area)(ABCD) = ?

A) $5\sqrt{2}$ B) 10 C) $10\sqrt{2}$ D) 15 E) $15\sqrt{2}$

11.

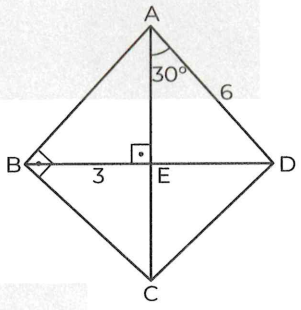


$m(\widehat{DEC}) = 120°$, $|AC| = 4\sqrt{3}$ br, $|BD| = 8$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 108 B) 96 C) 48 D) 24 E) 12

12.



$[AB] \perp [BC]$, $[AC] \perp [BD]$, $|AD| = 6$ br, $|BE| = 3$ br

$m(\widehat{CAD}) = 30°$

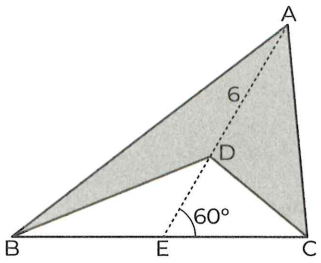
⇒ **Alan** (Area)(ABCD) = ?

A) $24\sqrt{3}$ B) $20\sqrt{3}$ C) 20

D) $12\sqrt{3}$ E) $16\sqrt{2}$

PUZA ACADEMY

13.



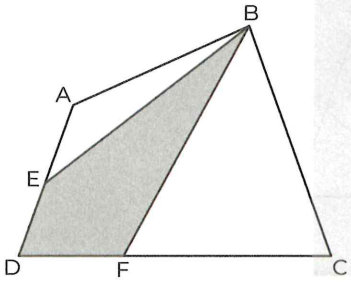
ABC **üçgen** (triangle)

$m(\widehat{AEC}) = 60°$, $|AD| = 6$ br, $|BC| = 10$ br

⇒ **Alan** (Area)(ABDC) = ?

A) 15 B) $15\sqrt{3}$ C) 20 D) $20\sqrt{3}$ E) 30

14.



ABCD **dörtgen** (quadrilateral)

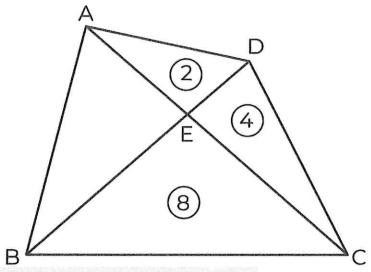
$|AE| = 3|ED|$, $3|DF| = |FC|$

Alan (Area)(EDFB) = 24 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 48 B) 64 C) 72 D) 96 E) 108

15.



Alan (Area)($\widehat{AED}$) = 2 br^2

Alan (Area)($\widehat{DEC}$) = 4 br^2

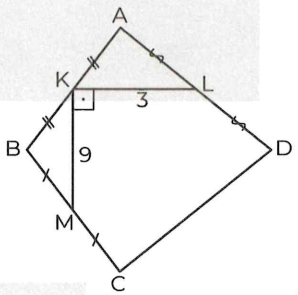
Alan (Area)($\widehat{EBC}$) = 8 br^2

⇒ **Alan** (Area)($\widehat{AEB}$) = ?

A) 2 B) 4 C) 6 D) 8 E) 12

PUZA ACADEMY

16.



K, L, M **orta nokta** (midpoint)

$[KL] \perp [KM]$, $|KL| = 3$ br, $|KM| = 9$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 27 B) 36 C) 54 D) 96 E) 108

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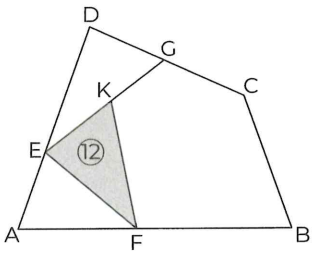
IRANINOVIN

17.



ABCD **dörtgen** (quadrilateral)

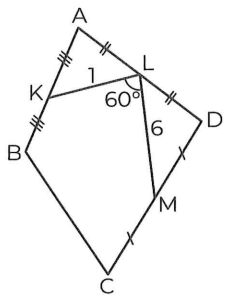
E, F, G **orta noktalar** (middle points)

$|EG| = 3|KG|$, **Alan** (Area)$(\widehat{EFK}) = 12$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 48 B) 60 C) 72 D) 84 E) 96

18.



K, L ve M **orta nokta** (midpoint)

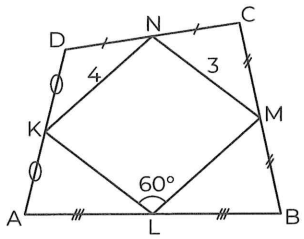
$|KL| = 1$ br, $|LM| = 6$ br, $m(\widehat{KLM}) = 60°$

⇒ **Alan** (Area)(ABCD) = ?

A) $24\sqrt{3}$ B) $18\sqrt{3}$ C) $12\sqrt{3}$

D) $6\sqrt{3}$ E) $4\sqrt{3}$

19.



K, L, M, N **orta nokta** (midpoint)

$m(\widehat{KLM}) = 60°$, $|NM| = 3$ br, $|KN| = 4$ br

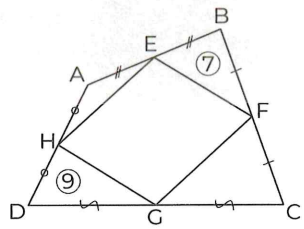
⇒ **Alan** (Area)(ABCD) = ?

A) $6\sqrt{3}$ B) $8\sqrt{3}$ C) $12\sqrt{3}$

D) $24\sqrt{3}$ E) $32\sqrt{3}$

PUZA ACADEMY

20.



ABCD **dörtgen** (quadrilateral)

E, F, G, H **orta noktalar** (middle points)

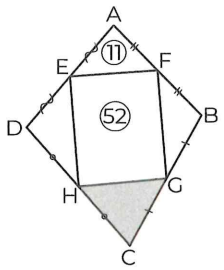
Alan (Area)$(\widehat{HDG}) = 9$ br^2

Alan (Area)$(\widehat{BEF}) = 7$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 32 B) 48 C) 64 D) 72 E) 96

21.



ABCD **dörtgen** (quadrilateral)

E, F, G, H **orta noktalar** (middle points)

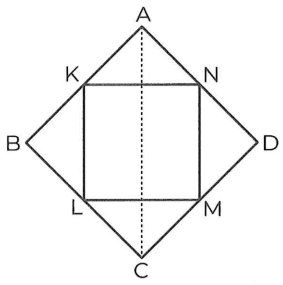
Alan (Area)($\widehat{AEF}$) = 11 br^2

Alan (Area)(EFGH) = 52 br^2

⇒ **Alan** (Area)($\widehat{HGC}$) = ?

A) 12 B) 15 C) 18 D) 21 E) 26

22.



K, L, M, N **orta nokta** (midpoint)

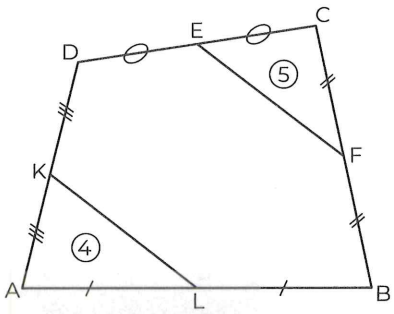
KLMN **kare** (square)

|AC| = 10 br

⇒ **Alan** (Area)(ABCD) = ?

A) 25 B) 30 C) 50 D) 75 E) 100

23.



K, L, E, F **orta nokta** (midpoint)

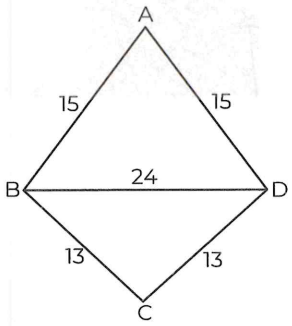
A($\widehat{ECF}$) = 5 br^2, A($\widehat{AKL}$) = 4 br^2

⇒ **Alan** (Area)(DEFBLK) = ?

A) 9 B) 18 C) 27 D) 36 E) 45

PUZA ACADEMY

24.



|AB| = |AD| = 15 br, |BD| = 24 br

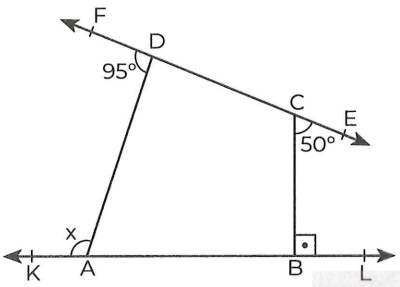
|BC| = |CD| = 13 br

⇒ **Alan** (Area)(ABCD) = ?

A) 168 B) 162 C) 160 D) 140 E) 132

IRANINOVIN

1.



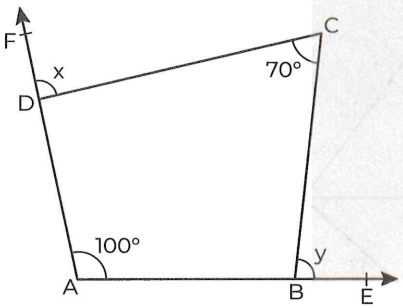
$[CB] \perp [KL]$, $m(\widehat{FDA}) = 95°$, $m(\widehat{ECB}) = 50°$

$m(\widehat{DAK}) = x$

$\Rightarrow x = ?$

A) 105 B) 115 C) 120 D) 125 E) 135

2.



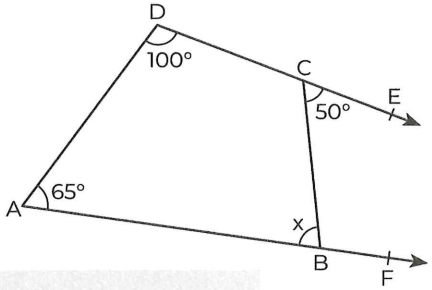
$m(\widehat{FAE}) = 100°$, $m(\widehat{DCB}) = 70°$

$m(\widehat{FDC}) = x$, $m(\widehat{CBE}) = y$

$\Rightarrow x + y = ?$

A) 140 B) 160 C) 170 D) 200 E) 210

3.



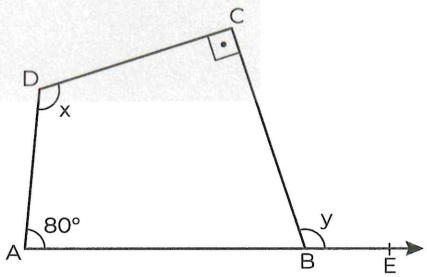
$m(\widehat{CDA}) = 100°$, $m(\widehat{DAB}) = 65°$

$m(\widehat{ECB}) = 50°$, $m(\widehat{ABC}) = x$

$\Rightarrow x = ?$

A) 55 B) 60 C) 65 D) 70 E) 75

4.



$m(\widehat{DAB}) = 80°$, $m(\widehat{ADC}) = x$, $m(\widehat{CBE}) = y$

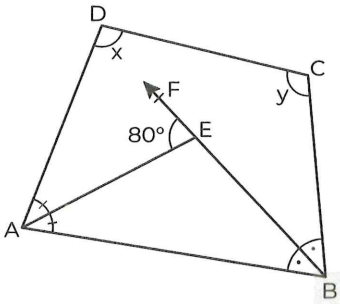
$m(\widehat{BCD}) = 90°$

$\Rightarrow x - y = ?$

A) 5 B) 10 C) 15 D) 20 E) 25

PUZA ACADEMY

5.



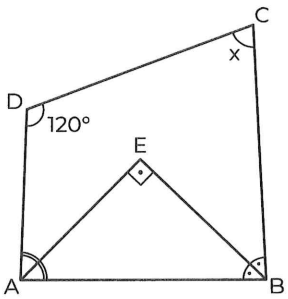
[EA], [BF] **açıortay** (bisector)

$m(\widehat{FEA}) = 80°$, $m(\widehat{ADC}) = x$, $m(\widehat{DCB}) = y$

$\Rightarrow x + y = ?$

A) 160 B) 170 C) 180 D) 190 E) 200

6.



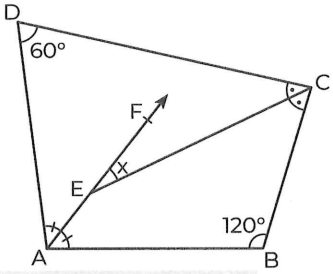
[AE], [BE] **açıortay** (bisector)

$m(\widehat{ADC}) = 120°$, $m(\widehat{AEB}) = 90°$, $m(\widehat{DCB}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

7.



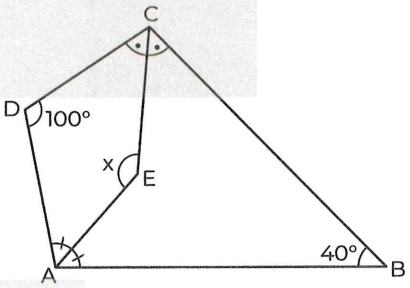
[AF] ve [EC] **açıortay** (bisector)

$m(\widehat{ADC}) = 60°$, $m(\widehat{ABC}) = 120°$, $m(\widehat{FEC}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 35 D) 40 E) 50

8.



[EA], [EC] **açıortay** (bisector)

$m(\widehat{ADC}) = 100°$, $m(\widehat{ABC}) = 40°$, $m(\widehat{AEC}) = x$

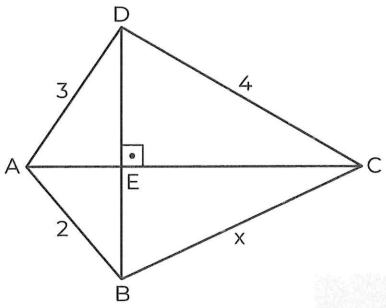
$\Rightarrow x = ?$

A) 30 B) 40 C) 60 D) 120 E) 150

PUZA ACADEMY

IRANINOVIN

9.



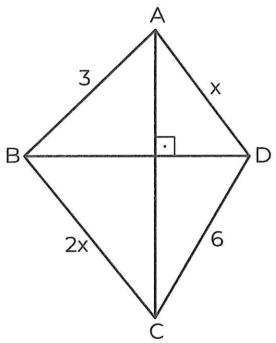
[AC] ⊥ [DB], |AB| = 2 br, |AD| = 3 br, |DC| = 4 br

|BC| = x

⇒ x = ?

A) $\sqrt{7}$ B) $2\sqrt{2}$ C) $\sqrt{11}$ D) $2\sqrt{3}$ E) 5

10.



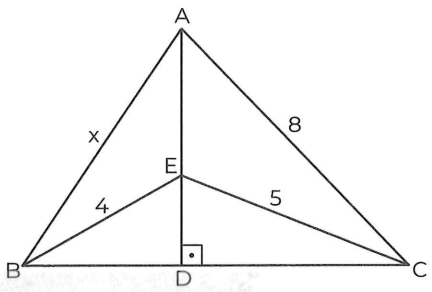
[AC] ⊥ [BD], |AB| = 3 br, |CD| = 6 br, |AD| = x

|BC| = 2x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 6

11.



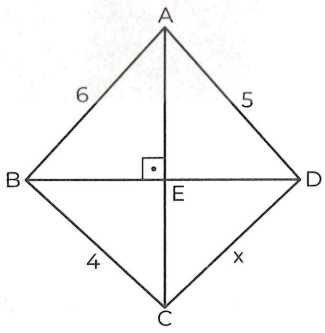
[AD] ⊥ [BC], |BE| = 4 br, |EC| = 5 br, |AC| = 8 br

|AB| = x

⇒ x = ?

A) $3\sqrt{10}$ B) $4\sqrt{2}$ C) $4\sqrt{3}$ D) 7 E) $\sqrt{55}$

12.



[AC] ⊥ [BD], |AB| = 6 br, |AD| = 5 br, |BC| = 4 br

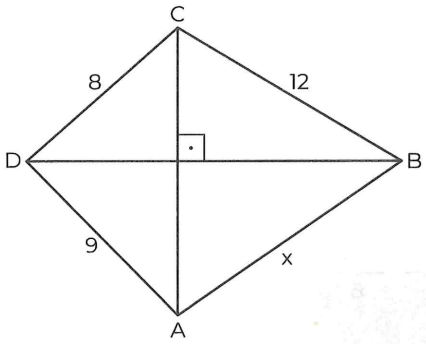
|CD| = x

⇒ x = ?

A) $\sqrt{2}$ B) $\sqrt{5}$ C) $\sqrt{7}$ D) 3 E) $\sqrt{10}$

PUZA ACADEMY

13.



[AC] ⊥ [DB], |CD| = 8 br, |DA| = 9 br, |BC| = 12 br

|AB| = x

⇒ x = ?

A) $\sqrt{161}$ B) $4\sqrt{10}$ C) 13

D) $\sqrt{159}$ E) 12

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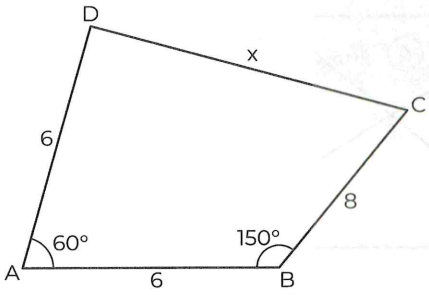
14.



$m(\widehat{DAB}) = 60°$, $m(\widehat{ABC}) = 150°$

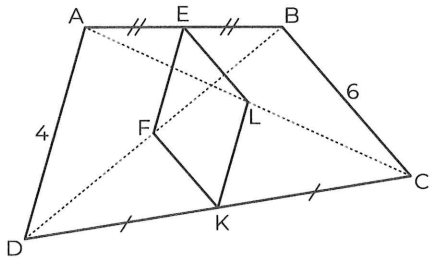
|AD| = |AB| = 6 br, |BC| = 8 br, |CD| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 8 E) 10

PUZA ACADEMY

15.



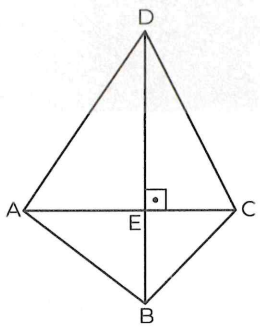
E, K **orta nokta** (midpoint)

|AD| = 4 br, |BC| = 6 br, |AL| = |LC|, |BF| = |FD|

⇒ **Çevre** (Perimeter)(EFKL) = ?

A) 10 B) 15 C) 20 D) 25 E) 30

16.



[AC] ⊥ [DB], |AC| = 8 br, |BD| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 12 B) 24 C) 32 D) 48 E) 56

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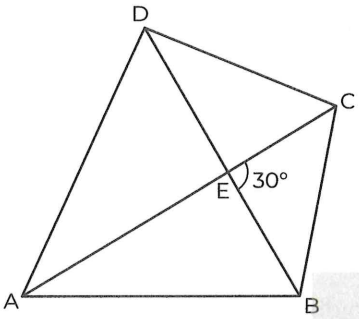
17.

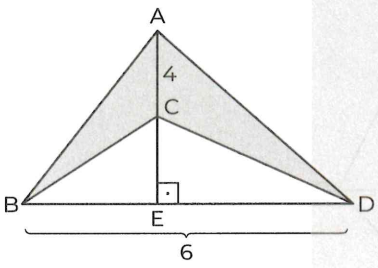


$m(\widehat{CEB}) = 30°$, $|AC| = 8$ br, $|BD| = 6$ br

⇒ **Alan** (Area) (ABCD) = ?

A) 12 B) 24 C) 48 D) 56 E) 64

18.

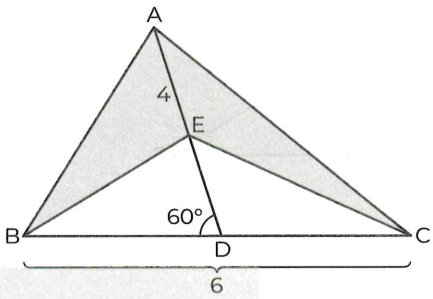


$[AE] \perp [BD]$, $|AC| = 4$ br, $|BD| = 6$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 6 B) 8 C) 10 D) 12 E) 24

19.

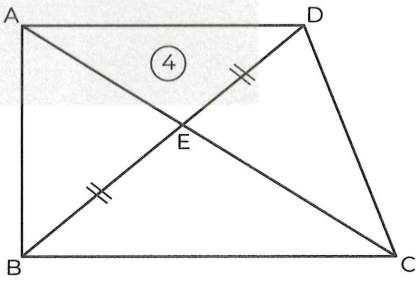


$m(\widehat{ADB}) = 60°$, $|AE| = 4$ br, $|BC| = 6$ br

⇒ A(ABEC) = ?

A) $24\sqrt{3}$ B) 24 C) $12\sqrt{3}$ D) 12 E) $6\sqrt{3}$

20.



$|BE| = |ED|$, $|EC| = 2|AE|$

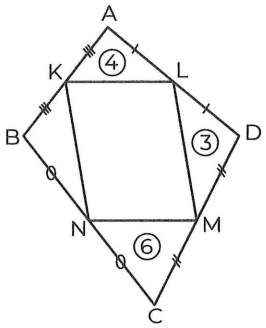
Alan (Area)$(\widehat{AED}) = 4$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 20 C) 18 D) 16 E) 12

PUZA ACADEMY

21.



|AK| = |KB|, |AL| = |LD|, |BN| = |NC|, |DM| = |MC|

Alan (Area)($\widehat{AKL}$) = 4 br^2

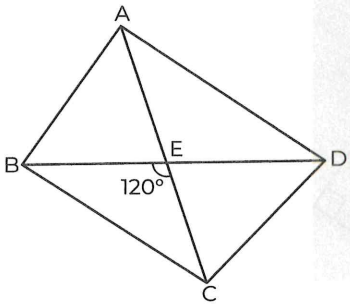
Alan (Area)($\widehat{LDM}$) = 3 br^2

Alan (Area)($\widehat{NMC}$) = 6 br^2

⇒ **Alan** (Area)($\widehat{KBN}$) = ?

A) 5 B) 6 C) 7 D) 8 E) 9

22.

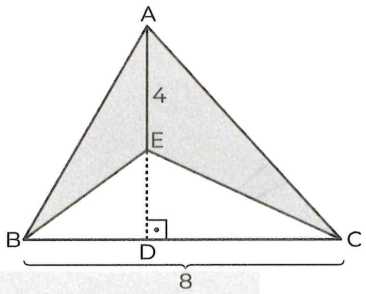


|AC| = 8 br, |BD| = 12 br, m($\widehat{BEC}$) = 120°

⇒ A(ABCD) = ?

A) 64 B) $48\sqrt{3}$ C) 48 D) $24\sqrt{3}$ E) 24

23.

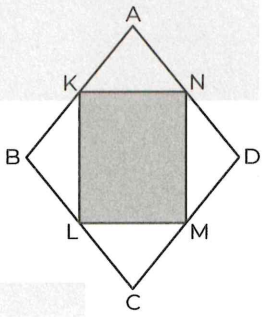


[AD] ⊥ [BC], |AE| = 4 br, |BC| = 8 br

⇒ **Alan** (Area)(ABEC) = ?

A) 32 B) 24 C) 20 D) 16 E) 12

24.



K, L, M, N **orta nokta** (midpoint)

Alan (Area)(ABCD) = 30 br^2

⇒ **Alan** (Area)(KLMN) = ?

A) 5 B) 10 C) 15 D) 20 E) 30

PUZA ACADEMY

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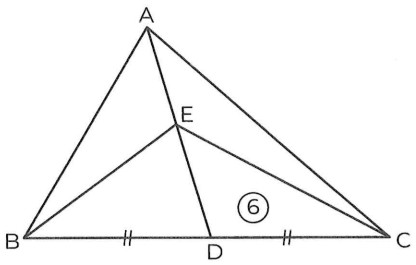
25.



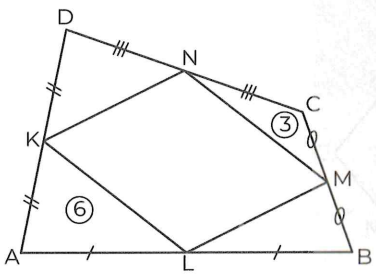
$|BD| = |DC|$, $|ED| = 2|AE|$

Alan (Area)($\widehat{EDC}$) = 6 br^2

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 25 B) 21 C) 19 D) 18 E) 16

26.



K, L, M, N **orta nokta** (midpoint)

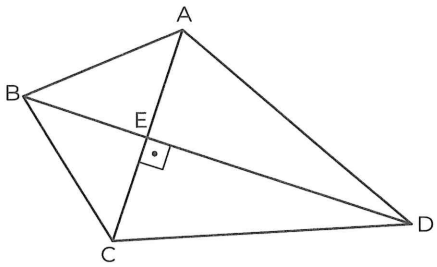
Alan (Area)($\widehat{NCM}$) = 3 br^2

Alan (Area)($\widehat{AKL}$) = 6 br^2

⇒ **Alan** (Area)(KNML) = ?

A) 9 B) 18 C) 27 D) 36 E) 45

27.

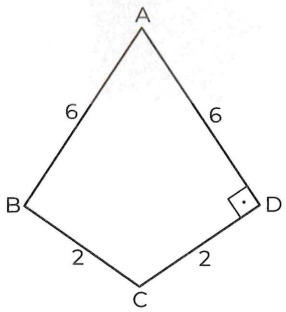


$[AC] \perp [BD]$, $|AC| = 8$ br, $|BD| = 10$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 160 B) 80 C) 60 D) 40 E) 20

28.



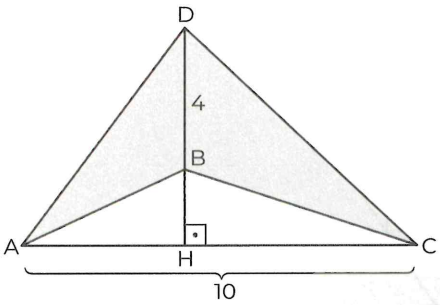
$[AD] \perp [DC]$, $|AB| = |AD| = 6$ br, $|BC| = |CD| = 2$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 6 B) 12 C) 18 D) 24 E) 30

PUZA ACADEMY

29.

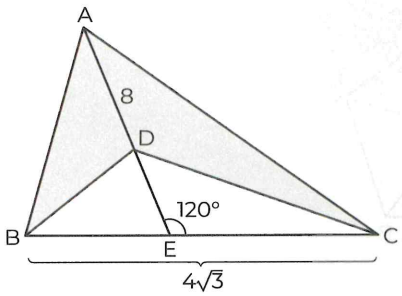


[AC] ⊥ [DH], |DB| = 4 br, |AC| = 10 br

⇒ **Alan** (Area) (ABCD) = ?

A) 60 B) 50 C) 40 D) 30 E) 20

30.

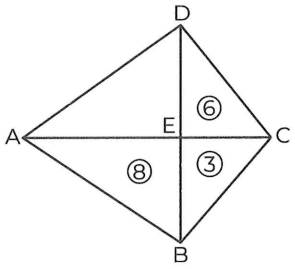


$m(\widehat{AEC}) = 120°$, |AD| = 8 br, |BC| = $4\sqrt{3}$ br

⇒ **Alan** (Area)(ABDC) = ?

A) $8\sqrt{3}$ B) 18 C) 24 D) $24\sqrt{3}$ E) 36

31.



Alan (Area)($\widehat{DEC}$) = 6 br^2

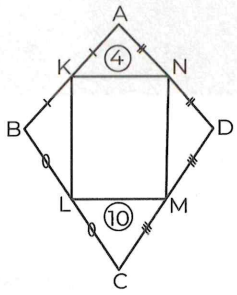
Alan (Area) ($\widehat{EBC}$) = 3 br^2

Alan (Area)($\widehat{AEB}$) = 8 br^2

⇒ **Alan** (Area)($\widehat{AED}$) = ?

A) 8 B) 10 C) 12 D) 14 E) 16

32.



K, L, M, N **orta nokta** (midpoint)

Alan (Area)($\widehat{AKN}$) = 4 br^2

Alan (Area)($\widehat{CLM}$) = 10 br^2

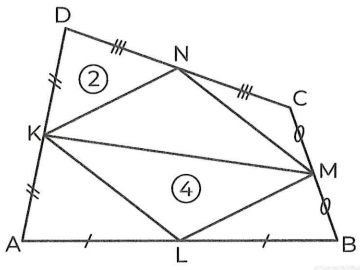
⇒ **Alan** (Area)(ABCD) = ?

A) 14 B) 28 C) 32 D) 48 E) 56

PUZA ACADEMY

IRANINOVIN

33.



K, L, M, N **orta nokta** (midpoint)

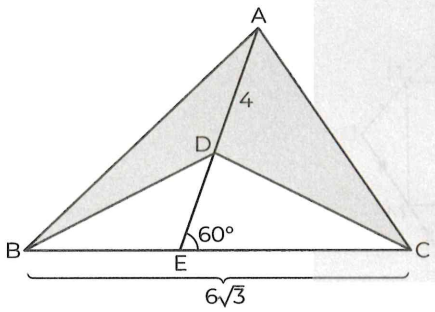
Alan (Area)($\widehat{DKN}$) = 2 br^2

Alan (Area) ($\widehat{KLM}$) = 4 br^2

⇒ **Alan** (Area)($\widehat{LMB}$) = ?

A) 2 B) 4 C) 6 D) 8 E) 10

34.

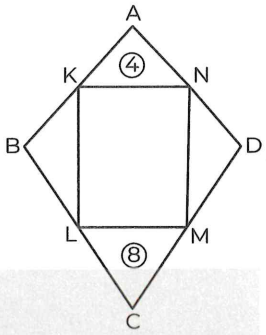


|AD| = 4 br, |BC| = $6\sqrt{3}$ br, m($\widehat{AEC}$) = 60°

⇒ **Alan** (Area)(ABDC) = ?

A) 24 B) 20 C) 18 D) 16 E) 12

35.



K, L, M, N **orta nokta** (midpoint)

Alan (Area)($\widehat{AKN}$) = 4 br^2

Alan (Area)($\widehat{CLM}$) = 8 br^2

⇒ **Alan** (Area)(KLMN) = ?

A) 6 B) 12 C) 18 D) 20 E) 24

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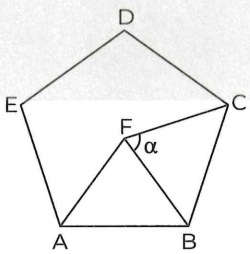
36.



ABCDE bir düzgün beşgen, ABF bir eşkenar üçgendir.

ABCDE is a regular pentagon and ABF is an equilateral triangle.

m(BFC) = α = ?

A) 66° B) 65° C) 64° D) 63° E) 62°

PUZA ACADEMY

NOTES:

QUADRILATERALS

DÖRTGENLER

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
C	E	C	A	D	C	B	D	B	A	D	D

13	14	15	16	17	18	19	20	21	22	23	24
B	D	B	C	C	D	C	C	B	C	C	A

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
D	C	C	B	E	E	B	E	C	C	E	B

13	14	15	16	17	18	19	20	21	22	23	24
A	E	A	B	A	D	E	A	C	D	D	C

25	26	27	28	29	30	31	32	33	34	35	36
D	B	D	B	E	C	E	E	A	C	E	A

NOTES:

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NOTES:

TRAPEZOID

YAMUK

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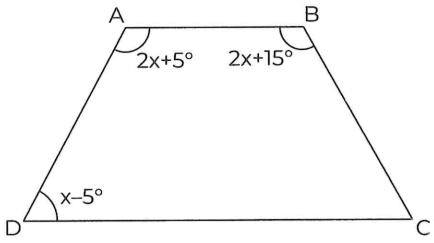
CHAPTER | BÖLÜM 12

IRANINOVIN

1.



ABCD **yamuk** (trapezoid)

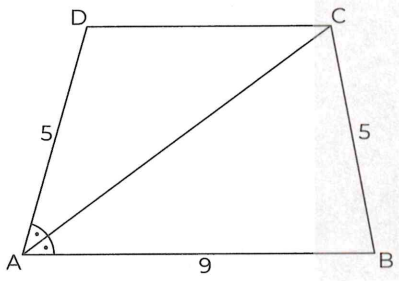
$m(\widehat{ADC}) = x - 5°$, $m(\widehat{DAB}) = 2x + 5°$

$m(\widehat{ABC}) = 2x + 15°$

$\Rightarrow m(\widehat{DCB}) = ?$

A) 35 B) 45 C) 55 D) 65 E) 95

2.



ABCD **yamuk** (trapezoid)

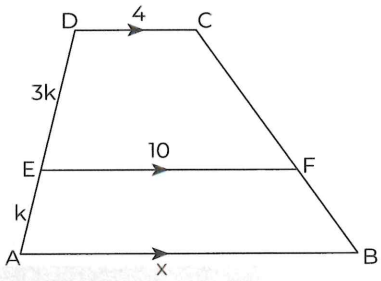
[AC] **açıortay** (bisector)

|AD| = |CB| = 5 br, |AB| = 9 br

⇒ **Çevre** (Perimeter)(ABCD) = ?

A) 10 B) 15 C) 18 D) 20 E) 24

3.



ABCD **yamuk** (trapezoid)

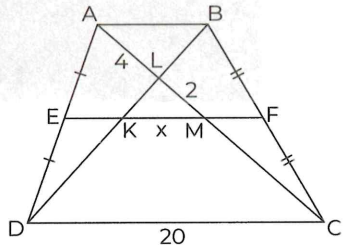
|DC| = 4 br, |EF| = 10 br, |AE| = k, |ED| = 3k

|AB| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 14 E) 16

4.



ABCD **yamuk** (trapezoid)

[AB] // [EF] // [CD], |AE| = |ED|, |BF| = |FC|

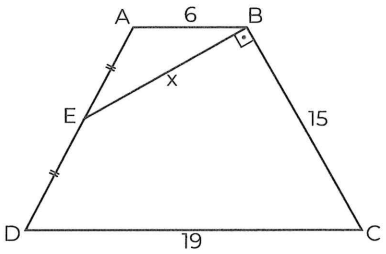
|LM| = 2 br, |AL| = 4 br, |CD| = 20 br, |KM| = x

⇒ x = ?

A) 2 B) 5 C) 6 D) 8 E) 10

PUZA ACADEMY

5.



ABCD **yamuk** (trapezoid)

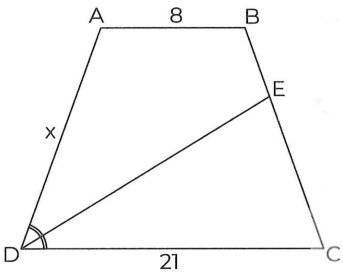
$|AE| = |ED|$, $[EB] \perp [BC]$

$|AB| = 6$ br, $|BC| = 15$ br, $|CD| = 19$ br, $|BE| = x$

$\Rightarrow x = ?$

A) 8 B) 9 C) 10 D) 12 E) 15

6.



ABCD **yamuk** (trapezoid)

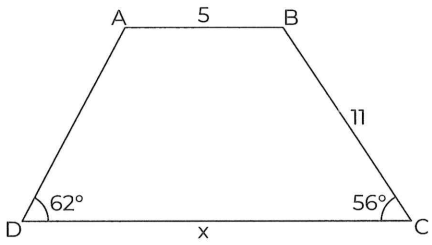
$m(\widehat{ADE}) = m(\widehat{EDC})$, $[AB] \,//\, [DC]$, $|EC| = 3|EB|$

$|AB| = 8$ br, $|DC| = 21$ br, $|AD| = x$

$\Rightarrow x = ?$

A) 11 B) 12 C) 13 D) 14 E) 15

7.



ABCD **yamuk** (trapezoid)

$m(\widehat{BCD}) = 56°$, $m(\widehat{ADC}) = 62°$, $|AB| = 5$ br

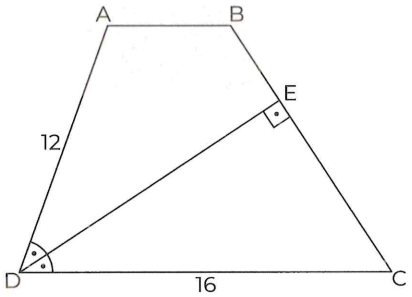
$|BC| = 11$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 12 B) 13 C) 14 D) 15 E) 16

PUZA ACADEMY

8.



ABCD **yamuk** (trapezoid)

$m(\widehat{ADE}) = m(\widehat{EDC})$, $[DE] \perp [BC]$

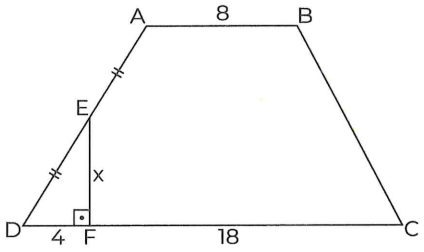
$|AD| = 12$ br, $|DC| = 16$ br

$\Rightarrow \frac{|BE|}{|EC|} = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) $\frac{3}{5}$ D) $\frac{2}{3}$ E) $\frac{3}{4}$

IRANINOVIN

9.



ABCD **yamuk** (trapezoid), [AB] // [CD]

[EF] ⊥ [CD], |AE| = |ED|

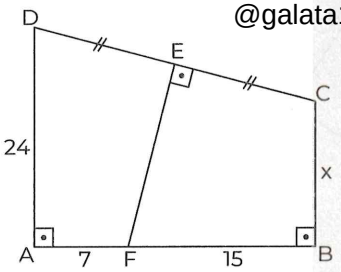
Alan (Area)(ABCD) = 180 br^2, |DF| = 4 br

|AB| = 8 br, |FC| = 18 br, |EF| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 12 E) 16

10.



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ABCD **yamuk** (trapezoid)

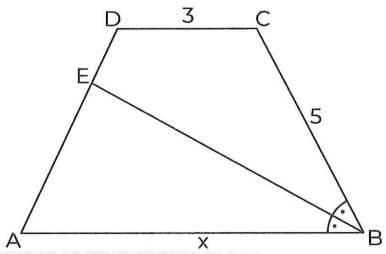
[CB] ⊥ [AB], [DA] ⊥ [AB], [FE] ⊥ [DC]

|CE| = |ED|, |AD| = 24 br, |AF| = 7 br, |FB| = 15 br

|CB| = x ⇒ x = ?

A) 30 B) 20 C) 16 D) 15 E) 12

11.



ABCD **yamuk** (trapezoid)

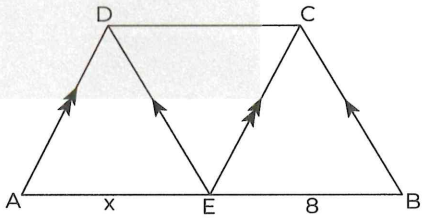
[BE] **açıortay** (bisector)

3|DE| = |AE|, |DC| = 3 br, |BC| = 5 br, |AB| = x

⇒ x = ?

A) 18 B) 15 C) 12 D) 9 E) 6

12.



ABCD **yamuk** (trapezoid)

[AD] // [EC], [DE] // [BC]

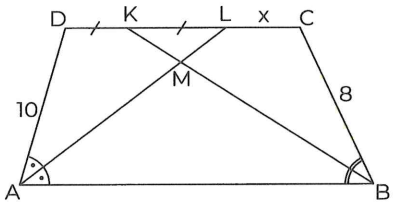
|EB| = 8 br, |AE| = x

⇒ x = ?

A) 16 B) 10 C) 8 D) 6 E) 4

PUZA ACADEMY

13.



ABCD **yamuk** (trapezoid)

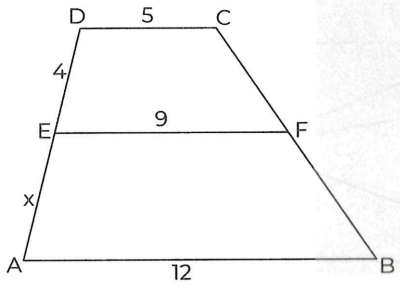
[AL] ve [KB] **açıortay** (bisector)

$|DK| = |KL|$, $|AD| = 10$ br, $|CB| = 8$ br, $|LC| = x$

$\Rightarrow$ $x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

14.



ABCD **yamuk** (trapezoid)

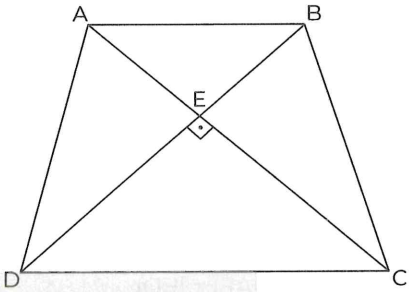
$|DC| = 5$ br, $|EF| = 9$ br, $|AB| = 12$ br, $|ED| = 4$ br

$|AE| = x$

$\Rightarrow$ $x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

15.



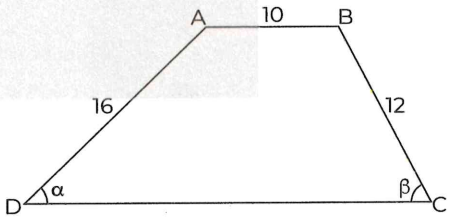
ABCD **yamuk** (trapezoid)

$[AC] \perp [BD]$, $|AC| = 12$ br, $|BD| = 16$ br

$\Rightarrow$ $|AB| + |DC| = ?$

A) 13 B) 14 C) 16 D) 18 E) 20

16.



ABCD **yamuk** (trapezoid)

$m(\widehat{ADC}) = \alpha$, $m(\widehat{BCD}) = \beta$, $\alpha + \beta = 90°$

$|AB| = 10$ br, $|BC| = 12$ br, $|AD| = 16$ br

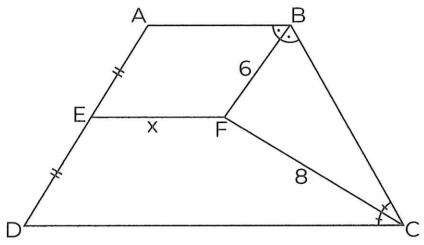
$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 84 B) 96 C) 144 D) 168 E) 192

PUZA ACADEMY

IRANINOVIN

17.



ABCD **yamuk** (trapezoid), |AE| = |ED|

[AB] // [EF] // [CD], [BF], [CF] **açıortay** (bisector)

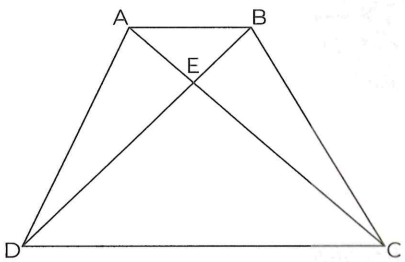
|FB| = 6 br, |FC| = 8 br

Alan (Area)(ABCD) = 144 br^2, |EF| = x

⇒ x = ?

A) 6 B) 8 C) 10 D) 13 E) 14

18.



ABCD **yamuk** (trapezoid)

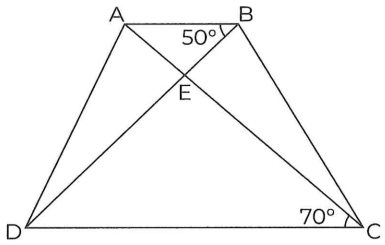
[AB] // [CD], 5·|AB| = 2·|CD|

Alan (Area)(ABCD) = 196 br^2

⇒ **Alan** (Area) $(\widehat{ABC})$ = ?

A) 56 B) 72 C) 98 D) 100 E) 140

19.



ABCD **yamuk** (trapezoid)

[AB] // [CD], $m(\widehat{ABD}) = 50°$, $m(\widehat{ACD}) = 70°$

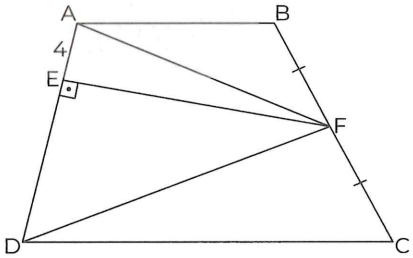
|AC| = 14 br, |BD| = 18 br

⇒ **Alan** (Area)(ABCD) = ?

A) 58 B) $58\sqrt{3}$ C) 63

D) $63\sqrt{3}$ E) $68\sqrt{3}$

20.



ABCD **yamuk** (trapezoid)

[AB] // [CD], |FB| = |FC|, [FE] ⊥ [AD]

|AE| = 4 br, |DE| – |EF| = 4 br

Alan (Area)(ABCD) = 84 br^2

⇒ |DE| = ?

A) 6 B) 8 C) 10 D) 12 E) 14

PUZA ACADEMY

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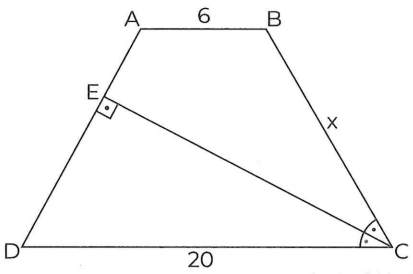
21.



ABCD **yamuk** (trapezoid)

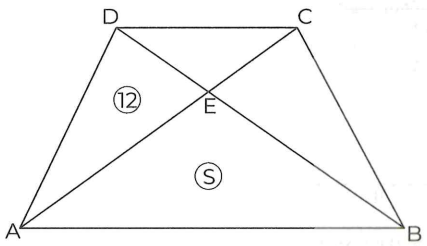
$[CE] \perp [AD]$, $m(\widehat{BCE}) = m(\widehat{DCE})$, $|BC| = x$

$5 \cdot |AE| = 2 \cdot |DE|$, $|AB| = 6$ br, $|CD| = 20$ br

$\Rightarrow$ $x = ?$

A) 6 B) 8 C) 12 D) 14 E) 16

22.



ABCD **yamuk** (trapezoid)

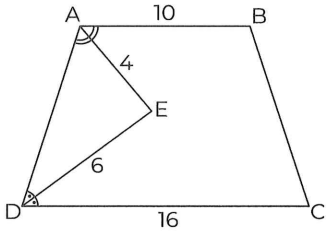
$2|AB| = 3|DC|$, **Alan** (Area) $(\widehat{EDA}) = 12$ br^2

Alan (Area) $(\widehat{AEB}) = S$

$\Rightarrow$ $S = ?$

A) 12 B) 16 C) 18 D) 24 E) 30

23.



ABCD **yamuk** (trapezoid)

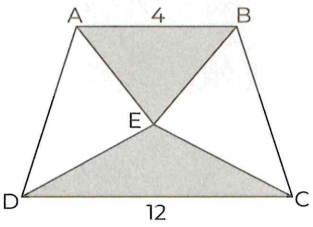
$m(\widehat{BAE}) = m(\widehat{EAD})$, $m(\widehat{ADE}) = m(\widehat{EDC})$

$|AE| = 4$ br, $|DE| = 6$ br, $|AB| = 10$ br, $|DC| = 16$ br

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) $8\sqrt{3}$ B) $8\sqrt{13}$ C) $16\sqrt{2}$
D) $16\sqrt{13}$ E) $24\sqrt{13}$

24.



ABCD **yamuk** (trapezoid)

$[AB] \,//\, [DC]$, $|AB| = 4$ br, $|DC| = 12$ br

Alan (Area) $(\widehat{ABE}) = 20$ br^2

Alan (Area) $(\widehat{DEC}) = 30$ br^2

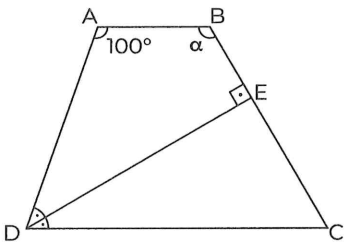
$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 100 B) 110 C) 120 D) 150 E) 160

PUZA ACADEMY

IRANINOVIN

1.



ABCD **yamuk** (trapezoid)

[DE] **açıortay** (bisector)

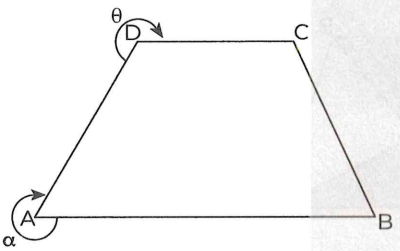
[AB] // [CD], [DE] ⊥ [BC]

$m(\widehat{BAD}) = 100°$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 70 C) 90 D) 110 E) 130

2.

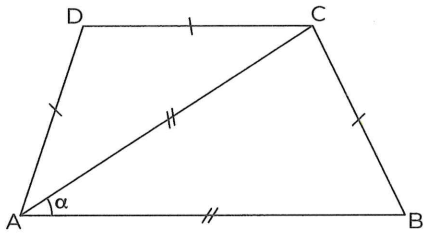


ABCD **yamuk** (trapezoid)

$\Rightarrow \alpha + \theta = ?$

A) 180 B) 270 C) 360 D) 540 E) 720

3.



ABCD **yamuk** (trapezoid)

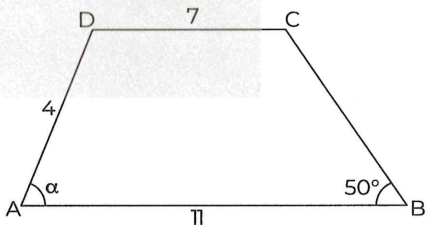
$|AD| = |DC| = |BC|$, $|AC| = |AB|$

$m(\widehat{CAB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 56 C) 48 D) 44 E) 36

4.



ABCD **yamuk** (trapezoid)

$|AD| = 4$ br, $|DC| = 7$ br, $|AB| = 11$ br

$m(\widehat{ABC}) = 50°$, $m(\widehat{DAB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 80 C) 65 D) 60 E) 50

PUZA ACADEMY

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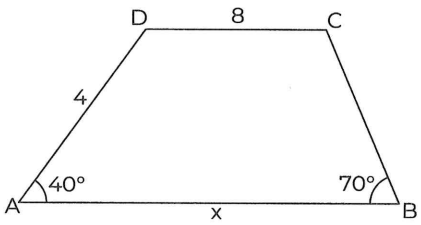
5.



ABCD **yamuk** (trapezoid)

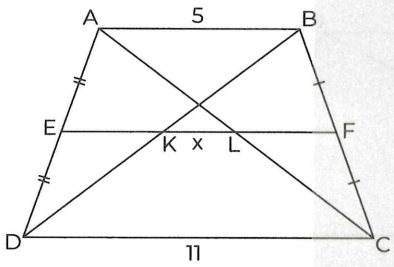
$m(\widehat{DAB}) = 40°$, $m(\widehat{ABC}) = 70°$

$|AD| = 4$ br, $|DC| = 8$ br, $|AB| = x$

$\Rightarrow x = ?$

A) 16 B) 14 C) 12 D) 10 E) 8

6.



ABCD **yamuk** (trapezoid)

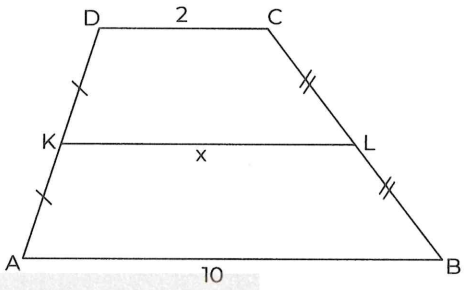
$[AB] // [EF] // [DC]$, $|AE| = |ED|$, $|BF| = |FC|$

$|AB| = 5$ br, $|DC| = 11$ br, $|KL| = x$

$\Rightarrow x = ?$

A) 1 B) 1,5 C) 2 D) 2,5 E) 3

7.



ABCD **yamuk** (trapezoid)

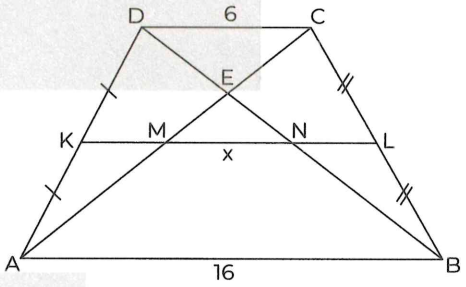
$|DK| = |KA|$, $|CL| = |LB|$

$|DC| = 2$ br, $|AB| = 10$ br, $|KL| = x$

$\Rightarrow x = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

8.



ABCD **yamuk** (trapezoid)

$|DK| = |AK|$, $|CL| = |LB|$

$|DC| = 6$ br, $|AB| = 16$ br, $|MN| = x$

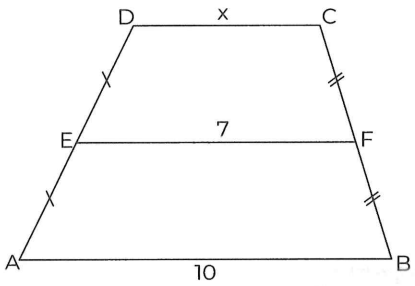
$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

PUZA ACADEMY

IRANINOVIN

9.



ABCD **yamuk** (trapezoid)

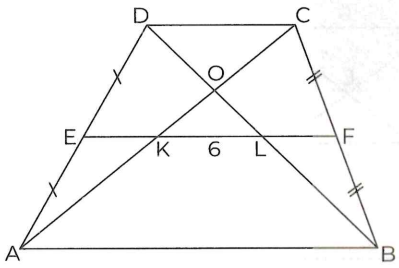
|DE| = |EA|, |CF| = |FB|, |EF| = 7 br, |AB| = 10 br

|DC| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

10.



ABCD **yamuk** (trapezoid)

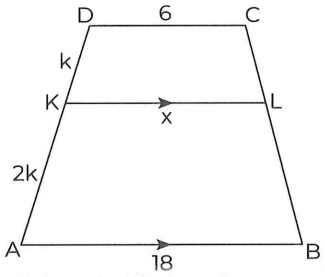
|DE| = |EA|, |CF| = |FB|

|KL| = 6 br, |EF| = 14 br

⇒ |AB| = ?

A) 8 B) 12 C) 16 D) 20 E) 28

11.



ABCD **yamuk** (trapezoid)

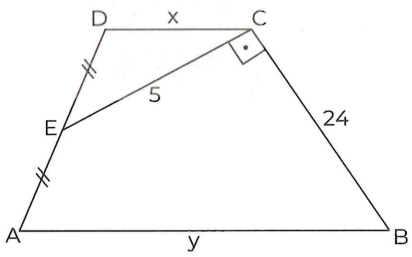
[KL] // [AB], 2|DK| = |KA|

|DC| = 6 br, |AB| = 18 br, |KL| = x

⇒ x = ?

A) 7 B) 8 C) 9 D) 10 E) 11

12.



ABCD **yamuk** (trapezoid)

[EC] ⊥ [BC], |EC| = 5 br, |BC| = 24 br

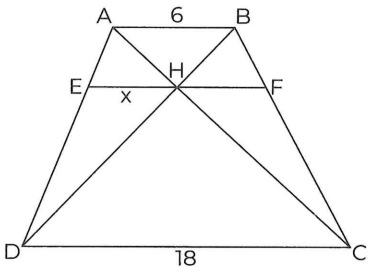
|DC| = x, |AB| = y

⇒ y + x = ?

A) 30 B) 28 C) 26 D) 24 E) 20

PUZA ACADEMY

13.



ABCD **yamuk** (trapezoid)

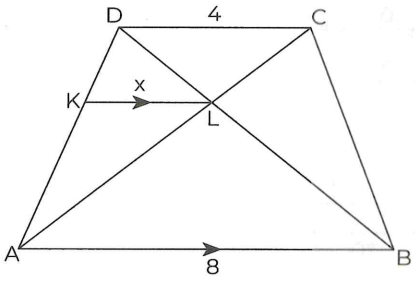
[AB] // [EF] // [CD]

|AB| = 6 br, |CD| = 18 br, |EH| = x

⇒ x = ?

A) 1,5 B) 2 C) 3 D) 4,5 E) 6

14.



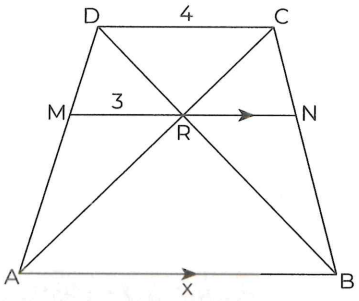
ABCD **yamuk** (trapezoid)

[KL] // [AB], |DC| = 4 br, |AB| = 8 br, |KL| = x

⇒ x = ?

A) $\frac{1}{4}$ B) $\frac{3}{8}$ C) 1 D) $\frac{3}{2}$ E) $\frac{8}{3}$

15.



ABCD **yamuk** (trapezoid)

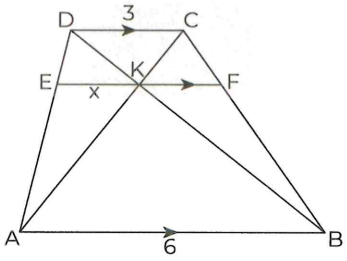
[MN] // [AB], |DC| = 4 br, |MR| = 3 br, |AB| = x

⇒ x = ?

A) 10 B) 11 C) 12 D) 14 E) 16

PUZA ACADEMY

16.



ABCD **yamuk** (trapezoid)

[DC] // [EF], |DC| = 3 br, |AB| = 6 br, |EK| = x

⇒ x = ?

A) $\frac{3}{2}$ B) 2 C) $\frac{5}{2}$ D) 3 E) $\frac{7}{2}$

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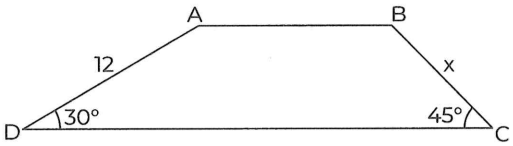
IRANINOVIN

17.



ABCD **yamuk** (trapezoid)

$m(\widehat{ADC}) = 30°$, $m(\widehat{BCD}) = 45°$

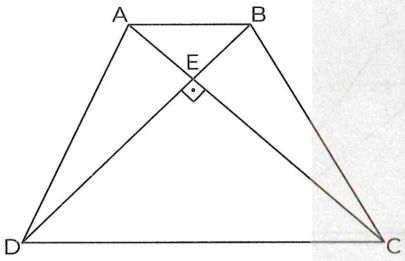
$|AD| = 12$ br

$|BC| = x$

$\Rightarrow x = ?$

A) $4\sqrt{2}$ B) 6 C) $4\sqrt{3}$ D) 8 E) $6\sqrt{2}$

18.



ABCD **yamuk** (trapezoid)

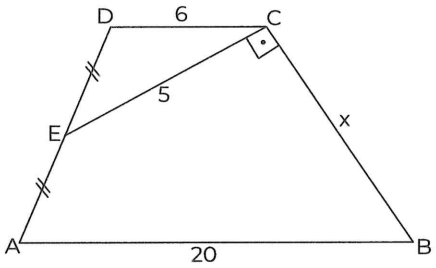
$[AC] \perp [BD]$, $[AB] \,//\, [CD]$

$|AC| = 9$ br, $|BD| = 12$ br

$\Rightarrow |AB| + |CD| = ?$

A) 12 B) 15 C) 18 D) 20 E) 28

19.



ABCD **yamuk** (trapezoid)

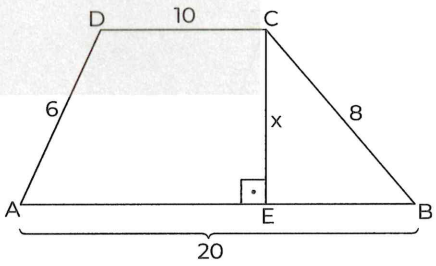
$[EC] \perp [BC]$, $|DC| = 6$ br, $|EC| = 5$ br, $|AB| = 20$ br,

$|BC| = x$

$\Rightarrow x = ?$

A) 6 B) 8 C) 12 D) 16 E) 24

20.



ABCD **yamuk** (trapezoid)

$[CE] \perp [AB]$, $|AB| = 20$ br, $|BC| = 8$ br

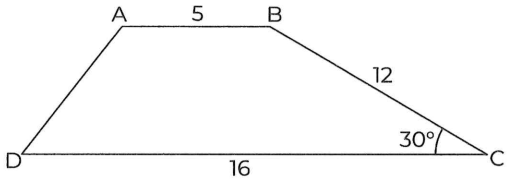
$|CD| = 10$ br, $|DA| = 6$ br, $|CE| = x$

$\Rightarrow x = ?$

A) $\frac{1}{7}$ B) $\frac{12}{7}$ C) $\frac{24}{5}$ D) 4 E) 6

PUZA ACADEMY

21.



ABCD **yamuk** (trapezoid)

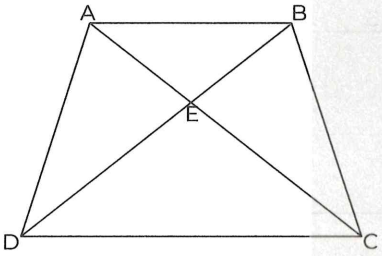
$m(\widehat{BCD}) = 30°$, $|AB| = 4$ br, $|BC| = 12$ br

$|DC| = 16$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 60 B) 63 C) 72 D) 81 E) 90

22.



ABCD **yamuk** (trapezoid)

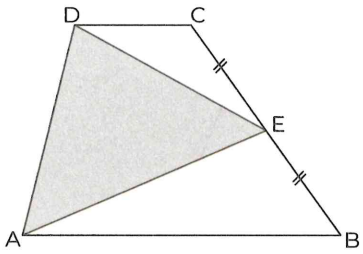
Alan (Area) $(\widehat{AEB}) = 4$ br^2

Alan (Area) $(\widehat{DEC}) = 16$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 27 C) 30 D) 32 E) 36

23.



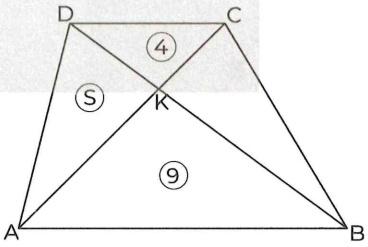
ABCD **yamuk** (trapezoid)

$|BE| = |EC|$, **Alan** (Area) $(\widehat{AED}) = 20$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 56 B) 52 C) 48 D) 44 E) 40

24.



ABCD **yamuk** (trapezoid)

Alan (Area) $(\widehat{DKC}) = 4$ br^2

Alan (Area) $(\widehat{AKB}) = 9$ br^2

Alan (Area) $(\widehat{DAK}) = S$

⇒ $S = ?$

A) 1 B) $2\sqrt{2}$ C) 3 D) $4\sqrt{2}$ E) 6

PUZA ACADEMY

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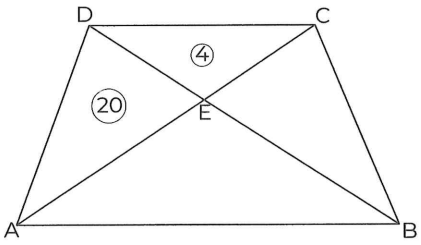
25.



ABCD **yamuk** (trapezoid)

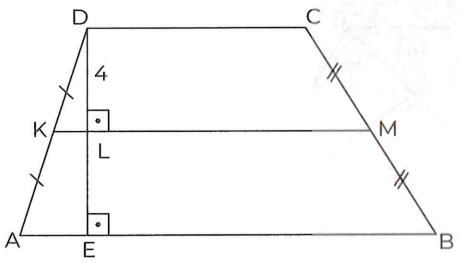
Alan (Area) $(\widehat{EDC}) = 4$ br^2

Alan(Area) $(\widehat{EDA}) = 20$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 100 B) 124 C) 140 D) 144 E) 164

26.



ABCD **yamuk** (trapezoid)

[DL] ⊥ [KM], [DE] ⊥ [AB]

|DL| = 4 br, |KM| = 10 br

⇒ **Alan** (Area)(ABCD) = ?

A) 160 B) 120 C) 80 D) 60 E) 40

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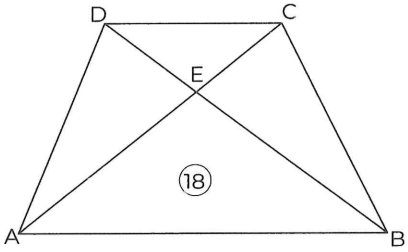
27.



ABCD **yamuk** (trapezoid)

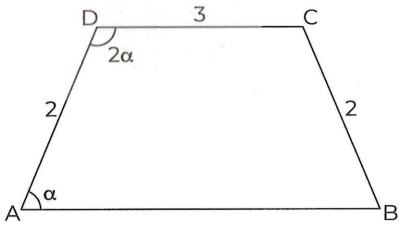
2|AB| = 3|DC|

Alan (Area) $(\widehat{EAB}) = 18$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 100 B) 96 C) 70 D) 60 E) 50

28.



ABCD **yamuk** (trapezoid)

$m(\widehat{DAB}) = \alpha$, $m(\widehat{ADC}) = 2\alpha$

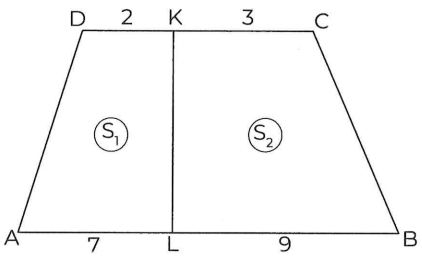
|AD| = |CB| = 2 br, |DC| = 3 br

⇒ **Alan** (Area)(ABCD) = ?

A) $2\sqrt{3}$ B) $4\sqrt{3}$ C) 6

D) $6\sqrt{3}$ E) 12

29.



ABCD **yamuk** (trapezoid)

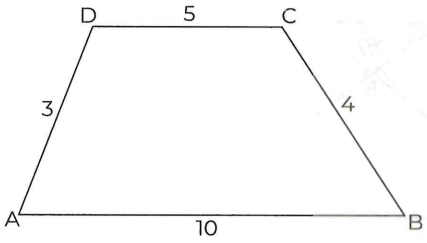
|DK| = 2 br, |KC| = 3 br, |AL| = 7 br, |LB| = 9 br

Alan (Area)(ALKD) = S_1 , **Alan** (Area)(LBCK) = S_2

$\Rightarrow \frac{S_1}{S_2} = ?$

A) 2 B) $\frac{1}{2}$ C) $\frac{3}{4}$ D) $\frac{1}{7}$ E) $\frac{5}{12}$

30.



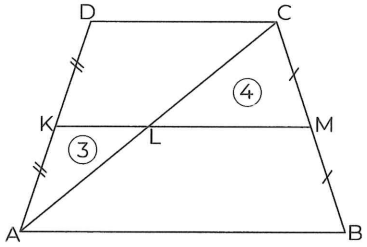
ABCD **yamuk** (trapezoid)

|AB| = 10 br, |BC| = 4 br, |CD| = 5 br, |DA| = 3 br

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 18 B) 24 C) 32 D) 36 E) 48

31.



ABCD **yamuk** (trapezoid)

Alan (Area) $(\widehat{AKL}) = 3$ br^2

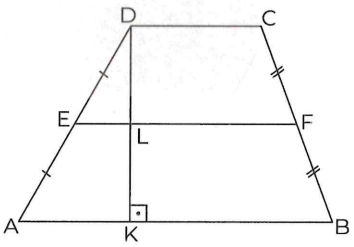
Alan (Area) $(\widehat{LMC}) = 4$ br^2

|DK| = |KA|, |CM| = |MB|

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 32 B) 28 C) 24 D) 21 E) 20

32.



ABCD **yamuk** (trapezoid)

[DK] $\perp$ [AB], |DE| = |EA|, |CF| = |FB|

Alan (Area)(ABCD) = 24 br^2

|EF| = 4 br

$\Rightarrow$ |DK| = ?

A) 5 B) 6 C) 7 D) 8 E) 9

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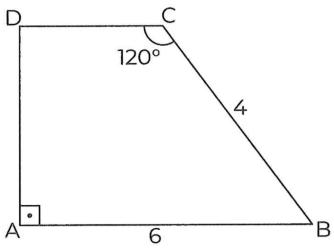
33.



ABCD **yamuk** (trapezoid)

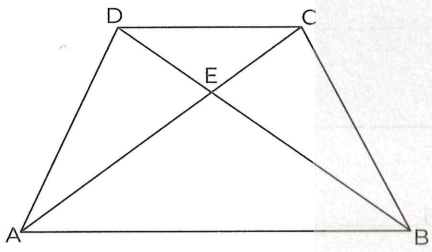
$m(\widehat{BCD}) = 120°$, $[DA] \perp [AB]$

$|AB| = 6$ br, $|CB| = 4$ br

⇒ **Alan** (Area)(ABCD) = ?

A) $5\sqrt{3}$ B) $8\sqrt{3}$ C) $10\sqrt{3}$ D) $12\sqrt{3}$ E) $15\sqrt{3}$

34.



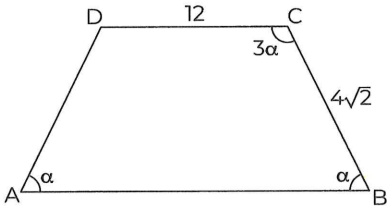
ABCD **yamuk** (trapezoid)

$3|EC| = |AE|$, **Alan** (Area)(ABCD) = 128 br^2

⇒ **Alan** (Area) $(\widehat{ABE})$ + **Alan** (Area) $(\widehat{ECD})$ = ?

A) 8 B) 24 C) 36 D) 72 E) 80

35.



ABCD **yamuk** (trapezoid)

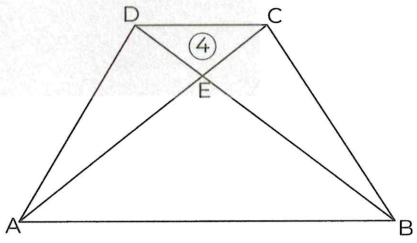
$m(\widehat{DCB}) = 3\alpha$, $m(\widehat{DAB}) = m(\widehat{ABC}) = \alpha$

$|CB| = 4\sqrt{2}$ br, $|DC| = 12$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 16 B) 32 C) $32\sqrt{2}$ D) 64 E) $64\sqrt{2}$

36.



ABCD **yamuk** (trapezoid)

$3|DC| = |AB|$, **Alan** (Area) $(\widehat{EDC})$ = 4 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 100 B) 96 C) 76 D) 64 E) 60

PUZA ACADEMY

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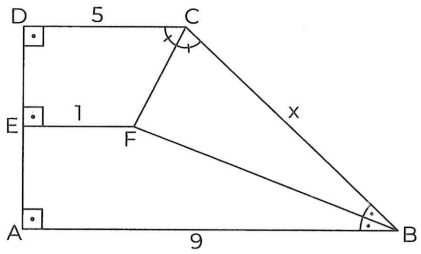
1.



ABCD **yamuk** (trapezoid)

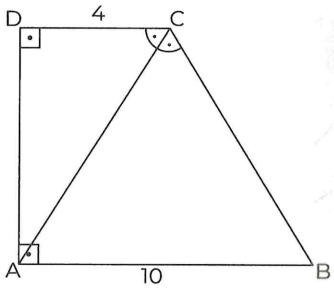
[DA] ⊥ [EF], [DA] ⊥ [AB], [DA] ⊥ [DC]

|DC| = 5 br, |EF| = 1 br, |AB| = 9 br, |BC| = x

⇒ x = ?

A) 3 B) 6 C) 8 D) 12 E) 15

2.



ABCD **yamuk** (trapezoid)

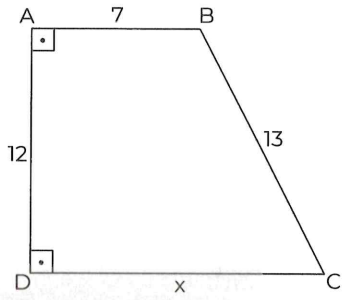
[CA] **açıortay** (bisector)

[DA] ⊥ [AB], |DC| = 4 br, |AB| = 10 br

⇒ |AD| = ?

A) 8 B) 7 C) 6 D) 5 E) 4

3.



ABCD **dik yamuk** (right trapezoid)

[AD] ⊥ [DC], |AB| = 7 br, |AD| = 12 br

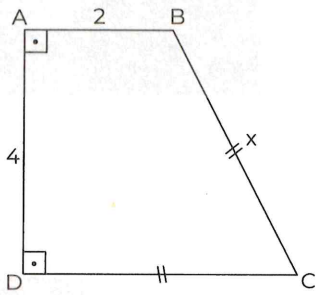
|BC| = 13 br, |DC| = x

⇒ x = ?

A) 9 B) 10 C) 11 D) 12 E) 13

PUZA ACADEMY

4.



ABCD **dik yamuk** (right trapezoid)

[AD] ⊥ [DC], |AB| = 2 br, |AD| = 4 br

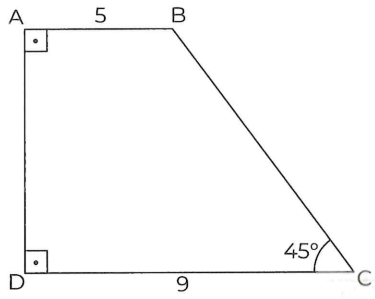
|BC| = |DC| = x

⇒ x = ?

A) 5 B) 6 C) 7 D) $5\sqrt{2}$ E) $6\sqrt{2}$

IRANINOVIN

5.



ABCD **dik yamuk** (right trapezoid)

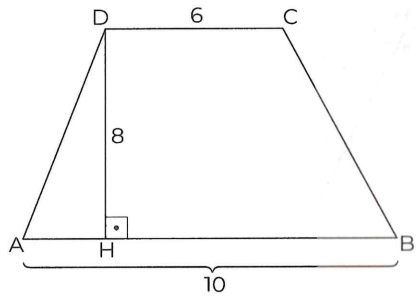
$[AD] \perp [DC]$, $m(\widehat{BCD}) = 45°$

$|AB| = 5$ br, $|DC| = 9$ br

⇒ $|BC| = ?$

A) 4 B) $2\sqrt{6}$ C) 5 D) $4\sqrt{2}$ E) 6

6.



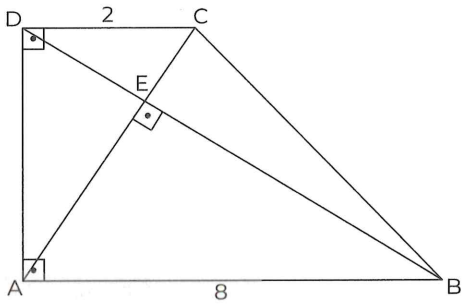
ABCD **yamuk** (trapezoid)

$[DH] \perp [AB]$, $|DC| = 6$ br, $|DH| = 8$ br, $|AB| = 10$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 64 B) 60 C) 56 D) 50 E) 48

7.



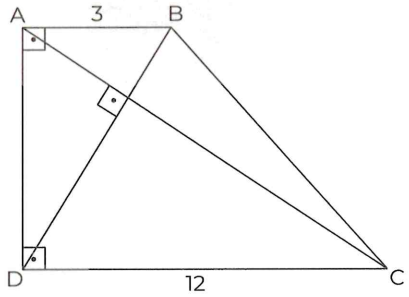
ABCD **yamuk** (trapezoid)

$[DA] \perp [AB]$, $[BD] \perp [AC]$, $|DC| = 2$ br, $|AB| = 8$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 12 B) 16 C) 20 D) 24 E) 30

8.



ABCD **dik yamuk** (right trapezoid)

$[AD] \perp [DC]$, $[BD] \perp [AC]$, $|AB| = 3$ br, $|DC| = 12$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 40 B) 45 C) 60 D) 75 E) 90

PUZA ACADEMY

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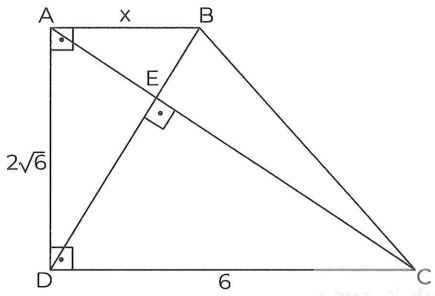
9.



ABCD **dik yamuk** (right trapezoid)

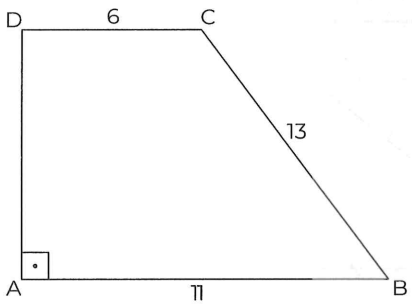
[AD] ⊥ [DC], [AC] ⊥ [BD], |AD| = $2\sqrt{6}$ br

|DC| = 6 br, |AB| = x

⇒ x = ?

A) 3 B) $2\sqrt{3}$ C) 4 D) $3\sqrt{2}$ E) 5

10.



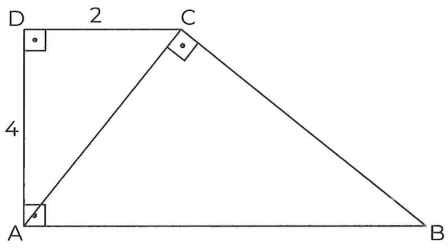
ABCD **yamuk** (trapezoid)

[AD] ⊥ [AB], |DC| = 6 br, |CB| = 13 br, |AB| = 11 br

⇒ **Alan** (Area)(ABCD) = ?

A) 90 B) 98 C) 100 D) 102 E) 108

11.



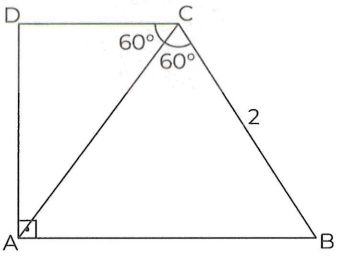
ABCD **yamuk** (trapezoid)

[DA] ⊥ [AB], [AC] ⊥ [BC], |DC| = 2 br, |AD| = 4 br

⇒ **Alan** (Area)(ABCD) = ?

A) 32 B) 28 C) 24 D) 20 E) 16

12.



ABCD **yamuk** (trapezoid)

$m(\widehat{DCA}) = m(\widehat{ACB}) = 60°$

[DA] ⊥ [AB], |BC| = 2 br

⇒ **Alan** (Area)(ABCD) = ?

A) $\frac{3\sqrt{3}}{2}$ B) $3\sqrt{3}$ C) $\frac{9}{2}$ D) 9 E) $8\sqrt{3}$

PUZA ACADEMY

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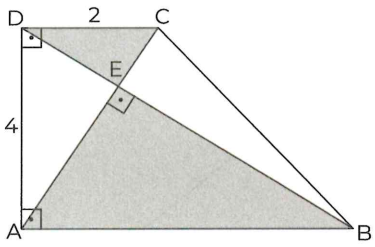
13.



ABCD **yamuk** (trapezoid)

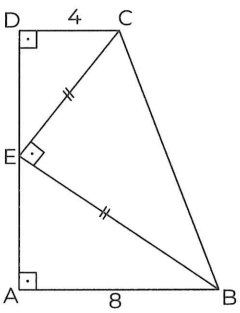
[DA] ⊥ [AB], [BD] ⊥ [AC]

|AD| = 4 br, |DC| = 2 br

⇒ **Alan** (Area) $(\widehat{ABE})$ + **Alan** (Area) $(\widehat{ECD})$ = ?

A) $\frac{288}{5}$ B) $\frac{172}{5}$ C) $\frac{68}{5}$ D) 20 E) 10

14.



ABCD **yamuk** (trapezoid)

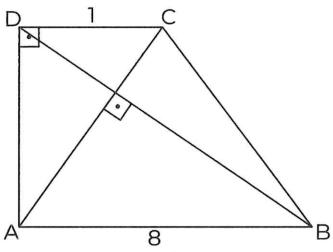
[AD] ⊥ [DC], [CE] ⊥ [EB], |EC| = |EB|

|DC| = 4 br, |AB| = 8 br

⇒ **Alan** (Area)(ABCD) = ?

A) 52 B) 56 C) 60 D) 68 E) 72

15.



ABCD **yamuk** (trapezoid)

[DC] ⊥ [AD], [DA] ⊥ [AB], [AC] ⊥ [DB]

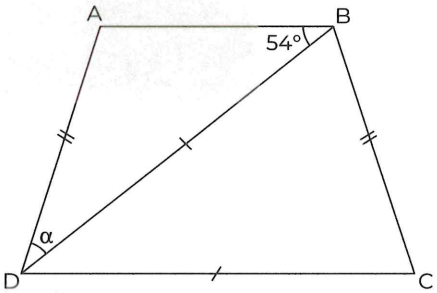
|DC| = 1 br, |AB| = 8 br

⇒ **Alan** (Area)(ABCD) = ?

A) $\sqrt{2}$ B) $2\sqrt{2}$ C) $5\sqrt{2}$ D) $9\sqrt{2}$ E) $10\sqrt{2}$

PUZA ACADEMY

16.



ABCD **ikizkenar yamuk** (isosceles trapezoid)

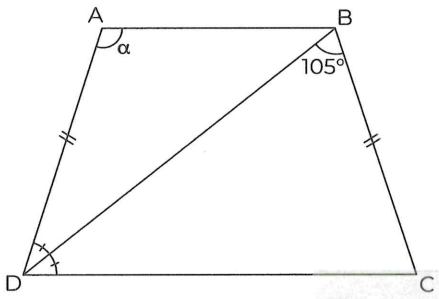
[AB] // [DC], |AD| = |BC|, |DB| = |DC|

$m(\widehat{ABD}) = 54°$, $m(\widehat{ADB}) = \alpha$

⇒ α = ?

A) 8 B) 9 C) 11 D) 12 E) 13

17.



ABCD **ikizkenar yamuk** (isosceles trapezoid)

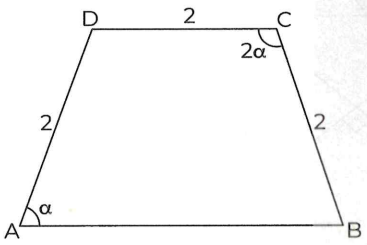
$m(\widehat{ADB}) = m(\widehat{BDC})$, $|AD| = |BC|$

$m(\widehat{DBC}) = 105°$, $m(\widehat{DAB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 110 C) 120 D) 130 E) 140

18.



ABCD **yamuk** (trapezoid)

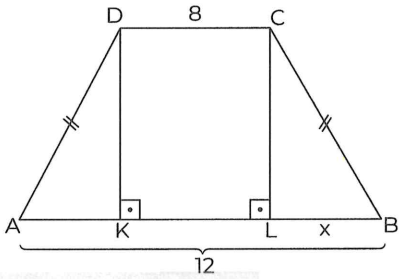
$|AD| = |DC| = |CB| = 2$ br

$m(\widehat{DAB}) = \alpha$, $m(\widehat{BCD}) = 2\alpha$

$\Rightarrow |AB| = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

19.



ABCD **yamuk** (trapezoid)

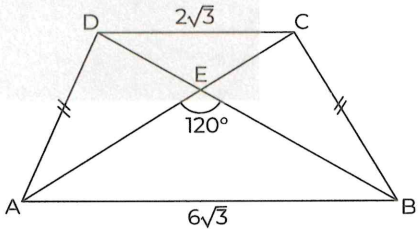
$[DK] \perp [AB]$, $[CL] \perp [AB]$, $|AD| = |BC|$

$|DC| = 8$ br, $|AB| = 12$ br, $|LB| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

20.



ABCD **yamuk** (trapezoid)

$|AD| = |BC|$, $|DC| = 2\sqrt{3}$ br, $|AB| = 6\sqrt{3}$ br

$m(\widehat{AEB}) = 120°$

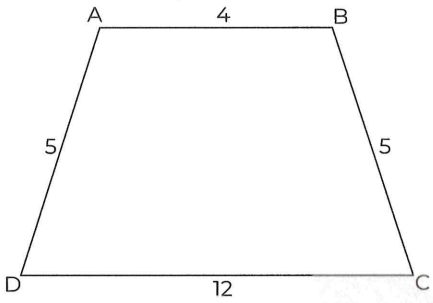
$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) $16\sqrt{3}$ B) 16 C) $8\sqrt{3}$ D) 8 E) $4\sqrt{3}$

PUZA ACADEMY

@galata1010
IRANINOVIN

21.



ABCD **ikizkenar yamuk** (isosceles trapezoid)

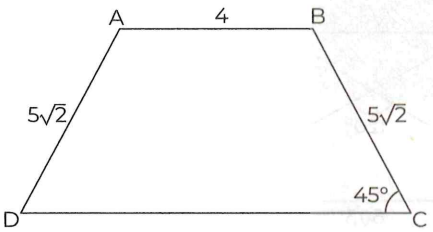
[AB] // [DC], |AB| = 4 br

|AD| = |BC| = 5 br, |DC| = 12 br

⇒ **Alan** (Area)(ABCD) = ?

A) 18 B) 24 C) 27 D) 30 E) 36

22.



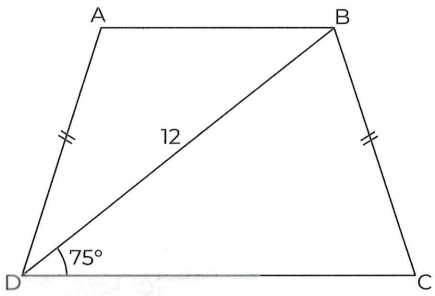
ABCD **ikizkenar yamuk** (isosceles trapezoid)

[AB] // [DC], |AB| = 4 br, |AD| = |BC| = $5\sqrt{2}$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 35 B) 40 C) 45 D) 48 E) 50

23.



ABCD **ikizkenar yamuk** (isosceles trapezoid)

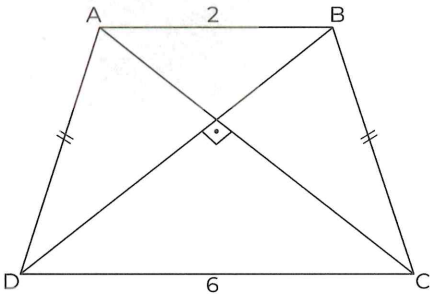
[AB] // [DC], |AD| = |BC|, |DB| = 12 br

$m(\widehat{BDC}) = 75°$

⇒ **Alan** (Area)(ABCD) = ?

A) 25 B) 30 C) 36 D) 45 E) 48

24.



ABCD **ikizkenar yamuk** (isosceles trapezoid)

[AB] // [DC], [AC] ⊥ [BD], |AD| = |BC|

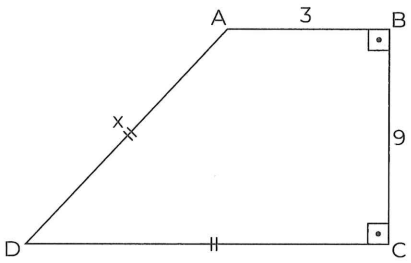
|AB| = 2 br, |DC| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 14 B) 16 C) 18 D) 20 E) 22

PUZA ACADEMY

1.



ABCD **dik yamuk** (right trapezoid)

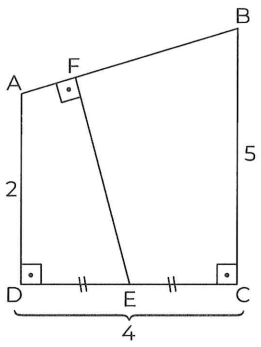
[BC] ⊥ [DC]

|AB| = 3 br, |BC| = 9 br, |AD| = |DC| = x

⇒ x = ?

A) 9 B) 10 C) 12 D) 15 E) 16

2.



ABCD **dik yamuk** (right trapezoid)

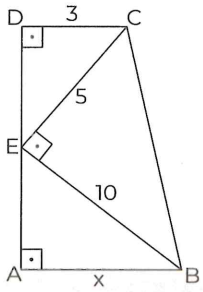
[AD] ⊥ [DC], [BC] ⊥ [DC], |DC| = 4 br

|BC| = 5 br, |AD| = 2 br

⇒ |EF| = ?

A) 2,8 B) 3 C) 3,5 D) 3,6 E) 4

3.



ABCD **yamuk** (trapezoid)

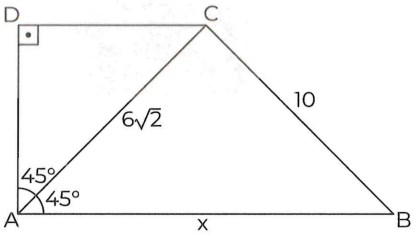
[AD] ⊥ [DC], [CE] ⊥ [EB], |DC| = 3 br, |EC| = 5 br

|EB| = 10 br, |AB| = x

⇒ x = ?

A) 20 B) 18 C) 16 D) 10 E) 8

4.



ABCD **yamuk** (trapezoid)

[DA] ⊥ [DC]

$m(\widehat{DAC}) = 45°$, $m(\widehat{CAB}) = 45°$

|AC| = $6\sqrt{2}$ br, |BC| = 10 br, |AB| = x

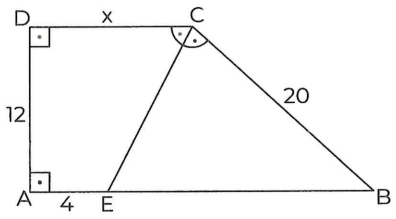
⇒ x = ?

A) 18 B) 16 C) 14 D) 12 E) 10

PUZA ACADEMY

IRANINOVIN

5.



ABCD **yamuk** (trapezoid)

[CE] **açıortay** (bisector)

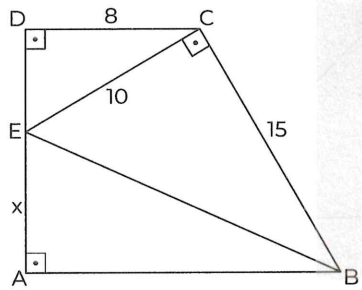
[DA] ⊥ [AB]

|BC| = 20 br, |AD| = 12 br, |AE| = 4 br, |DC| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 10 E) 12

6.



ABCD **yamuk** (trapezoid)

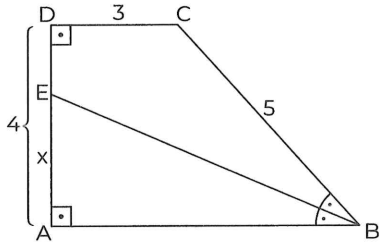
[DA] ⊥ [AB], [AD] ⊥ [DC], [EC] ⊥ [BC], |DC| = 8 br

|EC| = 10 br, |BC| = 15 br, |AE| = x

⇒ x = ?

A) 10 B) 9 C) 6 D) 4 E) 2

7.



ABCD **yamuk** (trapezoid)

[BE] **açıortay** (bisector)

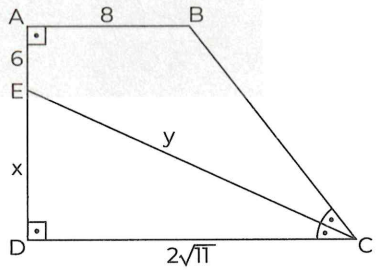
[DA] ⊥ [AB], |DC| = 3 br, |AD| = 4 br, |BC| = 5 br

|AE| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

8.



ABCD **dik yamuk** (right trapezoid)

$m(\widehat{ECD}) = m(\widehat{BCE})$

|AE| = 6 br, |DC| = $2\sqrt{11}$ br, |AB| = 8 br

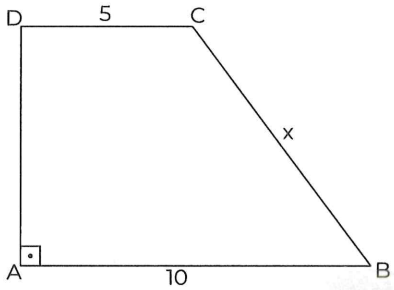
|ED| = x, |EC| = y

⇒ x + y = ?

A) 10 B) 12 C) 16 D) 20 E) 22

PUZA ACADEMY

9.



ABCD **yamuk** (trapezoid)

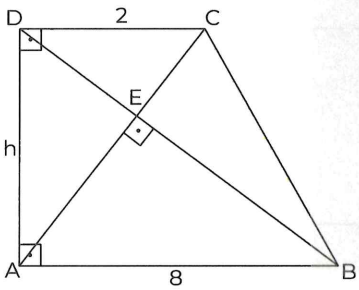
Alan (Area) = 90 br^2, [AD] ⊥ [AB], |DC| = 5 br

|AB| = 10 br, |CB| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 13 E) 15

10.



ABCD **yamuk** (trapezoid)

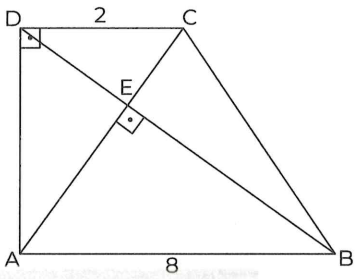
[DC] ⊥ [AD], [DA] ⊥ [AB], [AC] ⊥ [DB]

|DC| = 2 br, |AB| = 8 br, |AD| = h

⇒ h = ?

A) 5 B) 4 C) 3 D) 2 E) 1

11.



ABCD **yamuk** (trapezoid)

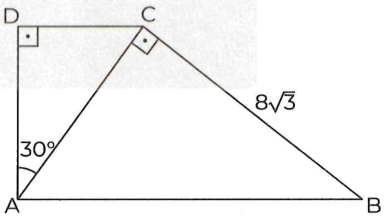
[AD] ⊥ [DC], [AC] ⊥ [DB]

|DC| = 2 br, |AB| = 8 br

⇒ **Alan** (Area)(ABCD) = ?

A) 12 B) 16 C) 20 D) 24 E) 30

12.



ABCD **yamuk** (trapezoid)

[AD] ⊥ [DC], [AC] ⊥ [BC]

|BC| = $8\sqrt{3}$ br, $m(\widehat{DAC}) = 30°$

⇒ **Alan** (Area) $(\widehat{ABC})$ = ?

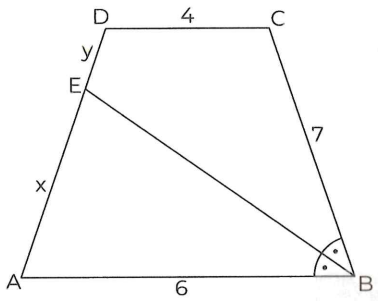
A) $32\sqrt{3}$ B) 40 C) $40\sqrt{3}$

D) 60 E) $60\sqrt{3}$

PUZA ACADEMY

IRANINOVIN

13.



ABCD **yamuk** (trapezoid)

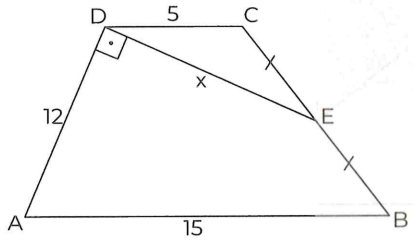
[BE] **açıortay** (bisector), |DC| = 4 br, |BC| = 7 br

|AB| = 6 br, |AE| = x, |DE| = y

$\Rightarrow \frac{x}{y} = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 3

14.



ABCD **yamuk** (trapezoid)

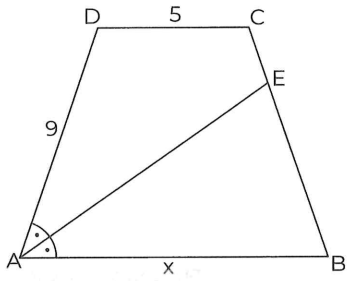
[ED] ⊥ [AD]

|DC| = 5 br, |AD| = 12 br, |AB| = 15 br, |DE| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 10 E) 12

15.



ABCD **yamuk** (trapezoid)

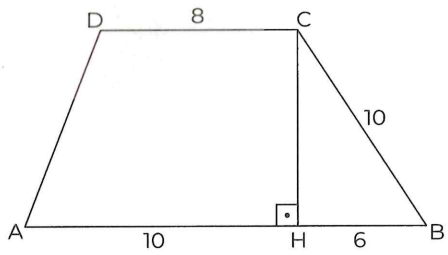
[AE] **açıortay** (bisector)

2|CE| = |EB|, |DC| = 5 br, |AD| = 9 br, |AB| = x

⇒ x = ?

A) 14 B) 12 C) 10 D) 8 E) 6

16.



ABCD **yamuk** (trapezoid)

[CH] ⊥ [AB], |DC| = 8 br, |AH| = |BC| = 10 br

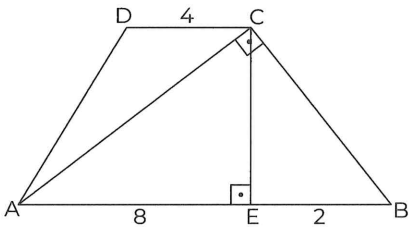
|HB| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 100 B) 96 C) 88 D) 82 E) 76

PUZA ACADEMY

17.



ABCD **yamuk** (trapezoid)

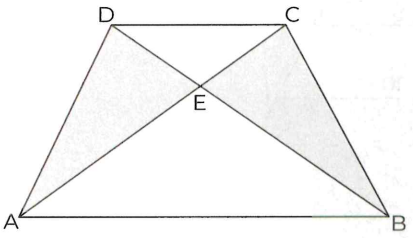
[CE] ⊥ [AB], [AC] ⊥ [CB]

|DC| = 4 br, |AE| = 8 br, |EB| = 2 br

⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 26 C) 28 D) 30 E) 32

18.



ABCD **yamuk** (trapezoid)

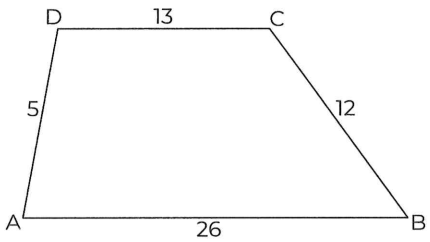
Alan (Area)(ABCD) = 54 br^2

2|DC| = |AB|

⇒ **Alan** (Area) $(\widehat{AED})$ + **Alan** (Area) $(\widehat{ECB})$ = ?

A) 12 B) 18 C) 24 D) 36 E) 42

19.



ABCD **yamuk** (trapezoid)

|AB| = 26 br, |BC| = 12 br

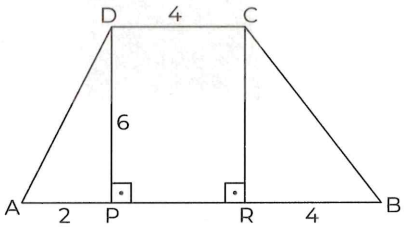
|CD| = 13 br, |DA| = 5 br

⇒ **Alan** (Area)(ABCD) = ?

A) 180 B) 120 C) 100 D) 90 E) 60

PUZA ACADEMY

20.



ABCD **yamuk** (trapezoid)

[DP] ⊥ [AB], [CR] ⊥ [AB]

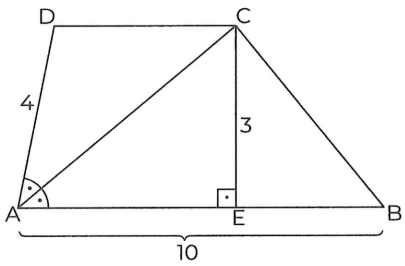
|AP| = 2 br, |DC| = |RB| = 4 br, |DP| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 12 B) 15 C) 18 D) 36 E) 42

IRANINOVIN

21.



ABCD **yamuk** (trapezoid)

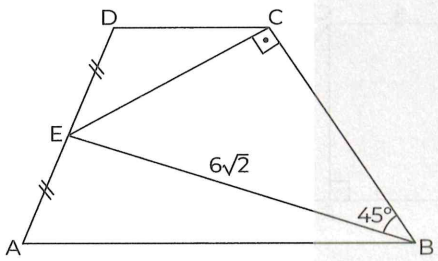
[CE] ⊥ [AB], |AD| = 4 br

|CE| = 3 br, |AB| = 10 br

⇒ **Alan** (Area)(ABCD) = ?

A) 15 B) 18 C) 20 D) 21 E) 24

22.



ABCD **yamuk** (trapezoid)

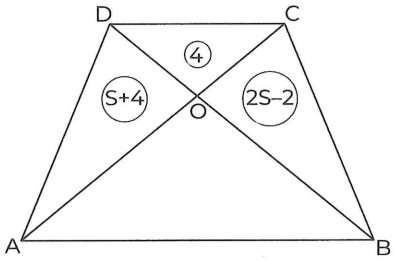
[EC] ⊥ [BC], |DE| = |EA|

|EB| = $6\sqrt{2}$ br, $m(\widehat{EBC}) = 45°$

⇒ **Alan** (Area)(ABCD) = ?

A) 72 B) 54 C) 36 D) 32 E) 20

23.



ABCD **yamuk** (trapezoid)

Alan (Area) $(\widehat{DOC}) = 4$ br^2

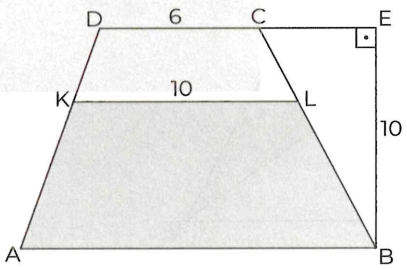
Alan (Area) $(\widehat{AOD}) = S + 4$

Alan (Area) $(\widehat{BOC}) = 2S - 2$

⇒ **Alan** (Area) $(\widehat{AOB}) = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

24.



ABCD **yamuk** (trapezoid)

[BE] ⊥ [DE], |DC| = 6 br, |KL| = |EB| = 10 br

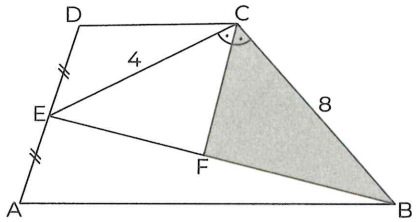
2|AK| = 3|DK|

⇒ **Alan** (Area)(ABLK) = ?

A) 98 B) 90 C) 78 D) 70 E) 64

PUZA ACADEMY

25.



ABCD **yamuk** (trapezoid)

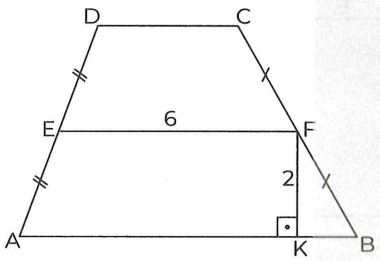
[CF] **açıortay** (bisector)

$|DE| = |EA|$, $|EC| = 4$ br, $|BC| = 8$ br

$\Rightarrow \dfrac{\textbf{Alan}\,(\text{Area})\,(\widehat{BCF})}{\textbf{Alan}\,(\text{Area})\,(ABCD)} = ?$

A) $\frac{1}{4}$ B) $\frac{1}{3}$ C) 1 D) 3 E) 4

26.



ABCD **yamuk** (trapezoid)

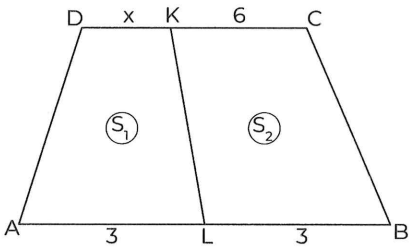
$[FK] \perp [AB]$, $|AE| = |ED|$, $|BF| = |FC|$

$|EF| = 6$ br, $|FK| = 2$ br

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 20 B) 24 C) 30 D) 36 E) 48

27.



ABCD **yamuk** (trapezoid)

$\frac{S_1}{S_2} = \frac{2}{3}$, $|AL| = |LB| = 3$ br, $|KC| = 6$ br

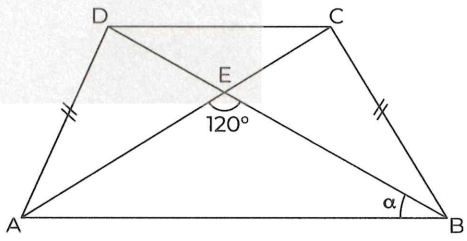
Alan (Area)(ALKD) = S_1, **Alan** (Area)(LBCK) = S_2

$|DC| = x$

$\Rightarrow x = ?$

A) 15 B) 12 C) 10 D) 8 E) 3

28.



ABCD **yamuk** (trapezoid)

$|AD| = |BC|$, $m(\widehat{AEB}) = 120°$, $m(\widehat{DBA}) = \alpha$

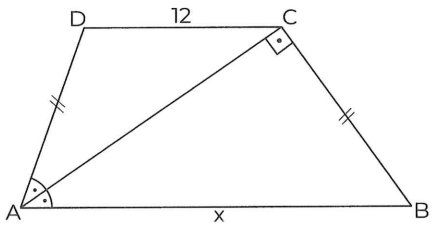
$\Rightarrow \alpha = ?$

A) 60 B) 45 C) 40 D) 30 E) 20

PUZA ACADEMY

IRANINOVIN

29.



ABCD **yamuk** (trapezoid)

[AC] **açıortay** (bisector)

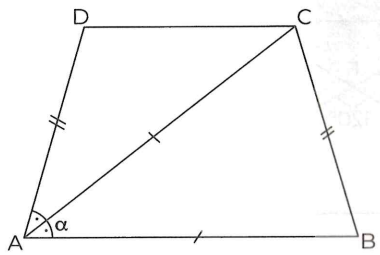
[AC] ⊥ [BC], |AD| = |CB|

|DC| = 12 br, |AB| = x

⇒ x = ?

A) 28 B) 26 C) 24 D) 20 E) 16

30.



ABCD **yamuk** (trapezoid)

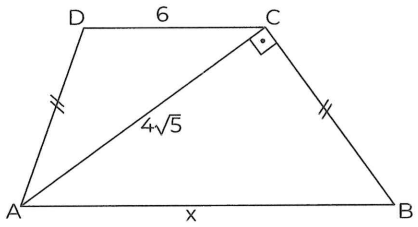
[AC] **açıortay** (bisector)

|AD| = |BC|, |AC| = |AB|, $m(\widehat{CAB}) = \alpha$

⇒ α = ?

A) 72 B) 54 C) 48 D) 36 E) 32

31.



ABCD **yamuk** (trapezoid)

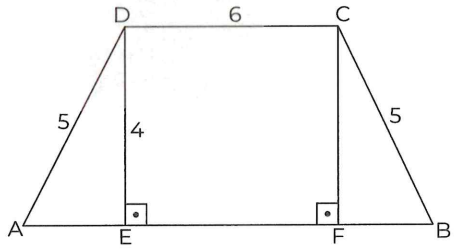
[AC] ⊥ [BC], |AD| = |BC|

|DC| = 6 br, |AC| = $4\sqrt{5}$ br, |AB| = x

⇒ x = ?

A) 12 B) 10 C) 8 D) 6 E) 4

32.



ABCD **yamuk** (trapezoid)

[DE] ⊥ [AB], [CF] ⊥ [AB], |DC| = 6 br, |DE| = 4 br

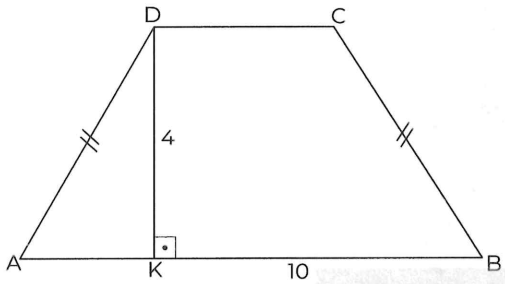
|AD| = |CB| = 5 br

⇒ **Alan** (Area)(ABCD) = ?

A) 21 B) 24 C) 27 D) 30 E) 36

PUZA ACADEMY

33.



ABCD **yamuk** (trapezoid)

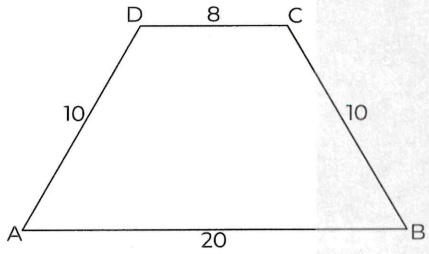
[DK] ⊥ [AB], |AD| = |BC|

|DK| = 4 br, |KB| = 10 br

⇒ **Alan** (Area)(ABCD) = ?

A) 80 B) 60 C) 40 D) 30 E) 20

34.



ABCD **yamuk** (trapezoid)

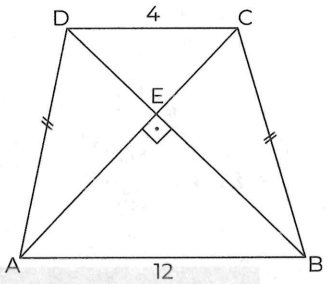
|DC| = 8 br, |AD| = |CB| = 10 br

|AB| = 20 br

⇒ **Alan** (Area)(ABCD) = ?

A) 64 B) 72 C) 112 D) 124 E) 140

35.



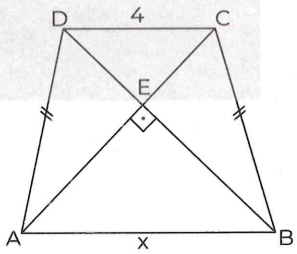
ABCD **yamuk** (trapezoid)

[AC] ⊥ [BD], |AD| = |BC|, |DC| = 4 br, |AB| = 12 br

⇒ **Alan** (Area)(ABCD) = ?

A) 128 B) 120 C) 96 D) 80 E) 64

36.



ABCD **yamuk** (trapezoid)

[AC] ⊥ [BD], |AD| = |BC|

Alan (Area)(ABCD) = 100 br^2

|DC| = 4 br, |AB| = x

⇒ x = ?

A) 16 B) 12 C) 10 D) 8 E) 6

PUZA ACADEMY

IRANINOVIN

TRAPEZOID

YAMUK

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
B	E	C	B	C	E	E	B	B	B	E	C

13	14	15	16	17	18	19	20	21	22	23	24
C	C	E	E	C	A	D	C	D	C	E	C

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
E	D	E	B	C	E	C	B	D	D	D	C

13	14	15	16	17	18	19	20	21	22	23	24
D	E	C	B	E	B	E	C	B	E	E	E

25	26	27	28	29	30	31	32	33	34	35	36
D	C	E	B	C	A	B	B	C	E	D	D

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	A	D	A	D	A	C	B	C	D	C	A

13	14	15	16	17	18	19	20	21	22	23	24
C	E	D	B	D	B	B	A	B	C	C	B

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
D	A	E	C	C	C	C	E	D	B	C	C

13	14	15	16	17	18	19	20	21	22	23	24
D	C	D	B	C	C	D	E	D	C	D	C

25	26	27	28	29	30	31	32	33	34	35	36
B	B	E	D	C	D	B	E	C	C	E	A

IRANINOVIN

NOTES:

NOTES:

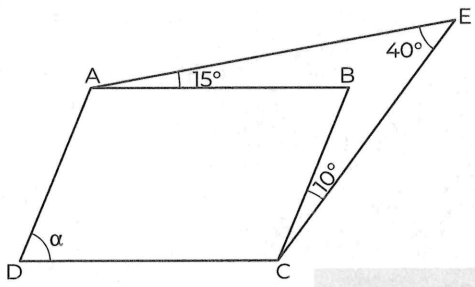
PARALLELOGRAM

PARALELKENAR

CHAPTER | BÖLÜM 13

IRANINOVIN

1.



ABCD **paralelkenar** (parallelogram)

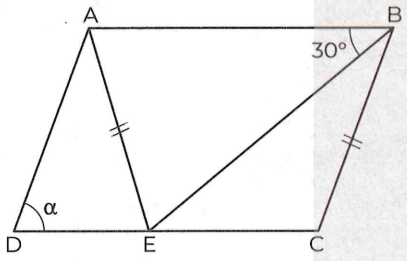
$m(\widehat{BCE}) = 10°$, $m(\widehat{EAB}) = 15°$, $m(\widehat{AEC}) = 40°$

$m(\widehat{ADC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 60 C) 65 D) 70 E) 75

2.



ABCD **paralelkenar** (parallelogram)

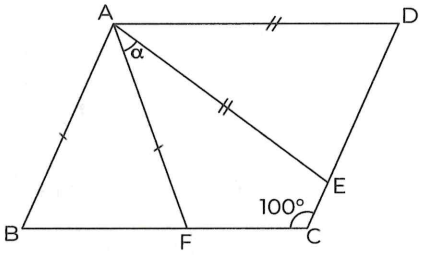
$m(\widehat{ABE}) = 30°$, $|AE| = |BC|$, $|DC| = |EB|$

$m(\widehat{ADC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 45 B) 55 C) 65 D) 75 E) 85

3.



ABCD **paralelkenar** (parallelogram)

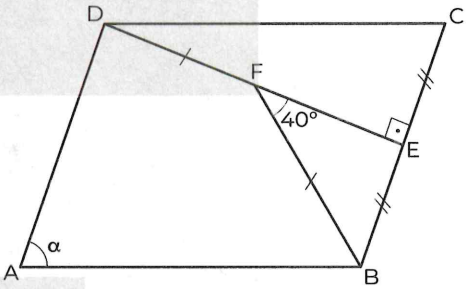
$|AB| = |AF|$, $|AE| = |AD|$

$m(\widehat{BCD}) = 100°$, $m(\widehat{FAE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 80 C) 60 D) 40 E) 20

4.



ABCD **paralelkenar** (parallelogram)

$[DE] \perp [BC]$, $|DF| = |FB|$, $|BE| = |EC|$

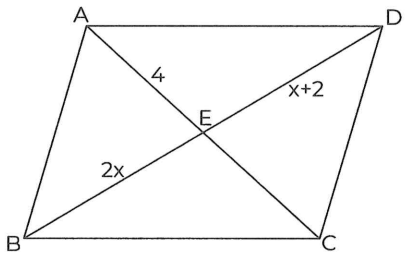
$m(\widehat{BFE}) = 40°$, $m(\widehat{DAB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 70 C) 100 D) 120 E) 140

PUZA ACADEMY

5.



ABCD **paralelkenar** (parallelogram)

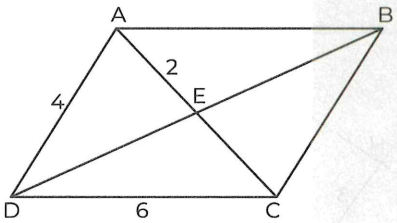
[AC] ∩ [BD] = {E}

|AE| = 4 br, |BE| = 2x, |ED| = x + 2

⇒ |AC| + |BD| = ?

A) 16 B) 20 C) 24 D) 26 E) 28

6.



ABCD **paralelkenar** (parallelogram)

[AC], [BD] **köşegen** (diagonal)

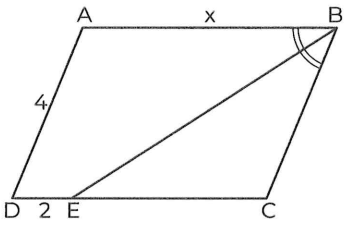
|AE| = 2 br, |AD| = 4 br, |DC| = 6 br

⇒ |DB| = ?

A) $2\sqrt{11}$ B) $6\sqrt{2}$ C) $4\sqrt{5}$

D) $2\sqrt{22}$ E) $4\sqrt{6}$

7.



ABCD **paralelkenar** (parallelogram)

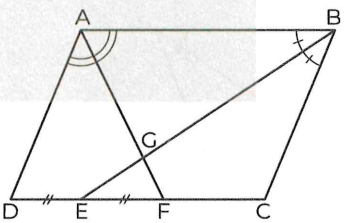
$m(\widehat{ABE}) = m(\widehat{EBC})$

|DE| = 2 br, |AD| = 4 br, |AB| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 7 E) 8

8.



ABCD **paralelkenar** (parallelogram)

$m(\widehat{DAF}) = m(\widehat{FAB})$, $m(\widehat{ABE}) = m(\widehat{EBC})$

|DE| = |EF|

Çevre (Perimeter)(ABCD) = 60 br

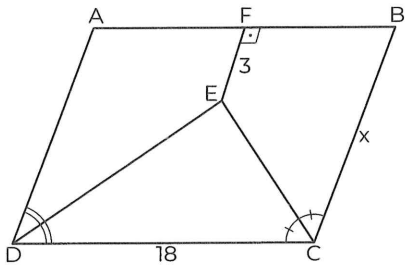
⇒ |BC| = ?

A) 6 B) 12 C) 15 D) 16 E) 18

PUZA ACADEMY

IRANINOVIN

9.



ABCD **paralelkenar** (parallelogram)

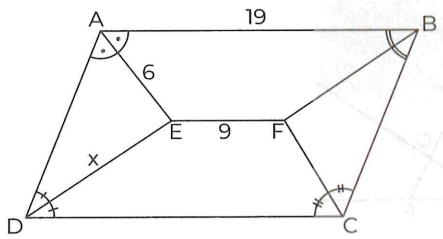
$m(\widehat{ADE}) = m(\widehat{EDC})$, $m(\widehat{BCE}) = m(\widehat{ECD})$

[EF] ⊥ [AB], |EF| = 3 br, |DC| = 18 br, |BC| = x

⇒ x = ?

A) 6 B) 8 C) 9 D) 10 E) 12

10.



ABCD **paralelkenar** (parallelogram)

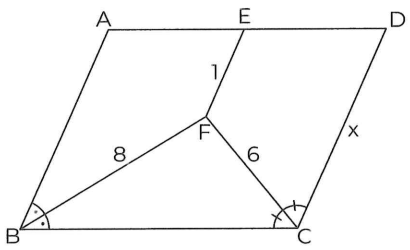
[FB], [FC], [EA], [ED] **açıortay** (bisector)

|AE| = 6 br, |EF| = 9 br, |AB| = 19 br, |DE| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 7 E) 8

11.



ABCD **paralelkenar** (parallelogram)

[BF], [CF] **açıortay** (bisector)

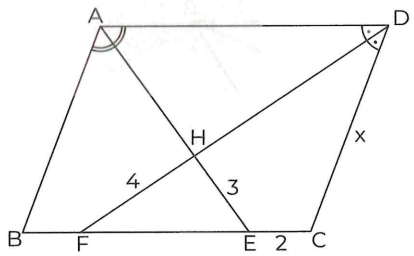
[EF] // [CD], |EF| = 1 br, |FB| = 8 br, |FC| = 6 br

|CD| = x

⇒ x = ?

A) 11 B) 10 C) 9 D) 8 E) 6

12.



ABCD **paralelkenar** (parallelogram)

[AE], [FD] **açıortay** (bisector)

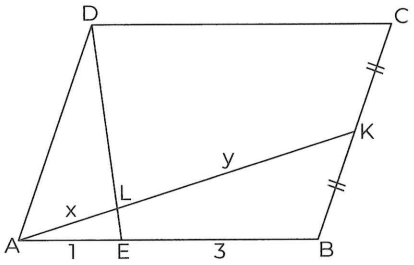
|EC| = 2 br, |EH| = 3 br, |FH| = 4 br, |DC| = x

⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 7

PUZA ACADEMY

13.



ABCD **paralelkenar** (parallelogram)

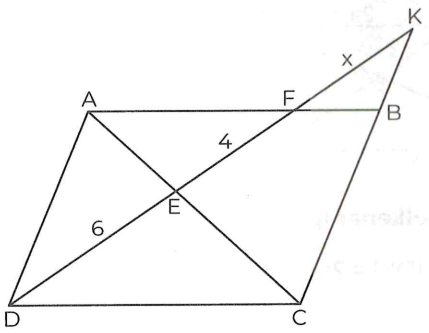
|BK| = |KC|, |AE| = 1 br, |EB| = 3 br

|AL| = x, |LK| = y

$\Rightarrow \frac{x}{y} = ?$

A) $\frac{1}{5}$ B) $\frac{2}{3}$ C) $\frac{1}{4}$ D) $\frac{1}{6}$ E) $\frac{2}{7}$

14.



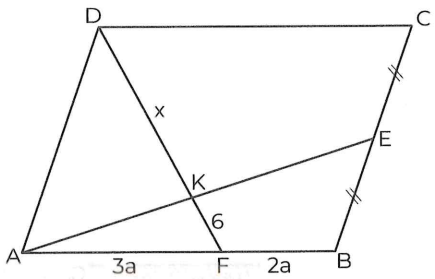
ABCD **paralelkenar** (parallelogram)

D, F, K **doğrusal** (linear), |EF| = 4 br, |DE| = 6 br

|FK| = x ⇒ x = ?

A) 4 B) 5 C) 6 D) 7 E) 8

15.



ABCD **paralelkenar** (parallelogram)

|BE| = |EC|, |AF| = 3a, |FB| = 2a, |KF| = 6 br

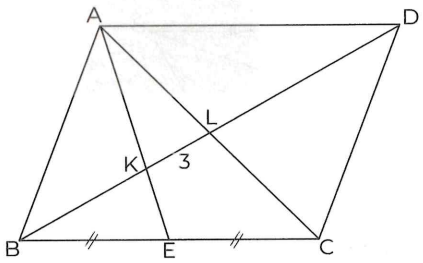
|KD| = x

⇒ x = ?

A) 25 B) 20 C) 18 D) 15 E) 10

PUZA ACADEMY

16.



ABCD **paralelkenar** (parallelogram)

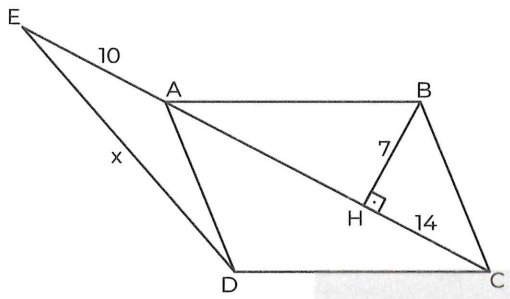
|BE| = |EC|, |KL| = 3 br

⇒ |BD| = ?

A) 24 B) 18 C) 16 D) 14 E) 12

IRANINOVIN

17.



ABCD **paralelkenar** (parallelogram)

[AC] **köşegen** (diagonal)

E, A, C **doğrusal** (linear)

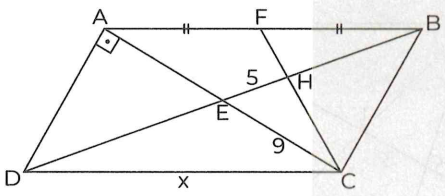
[BH] ⊥ [EC] , |BH| = 7 br , |AE| = 10 br

|CH] = 14 br , |ED| = x

⇒ x = ?

A) 25 B) 26 C) 27 D) 28 E) 30

18.



ABCD **paralelkenar** (parallelogram)

C, H, F **doğrusal** (linear)

[AC] ⊥ [AD], |AF| = |FB|

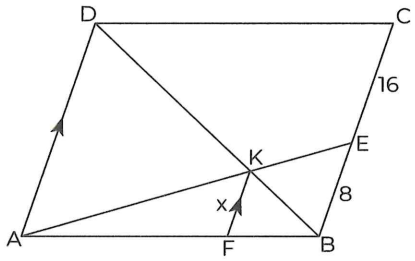
|EH| = 5 br, |EC| = 9 br, |DC| = x

⇒ x = ?

A) $9\sqrt{3}$ B) $12\sqrt{3}$ C) 20

D) $6\sqrt{13}$ E) $7\sqrt{13}$

19.



ABCD **paralelkenar** (parallelogram)

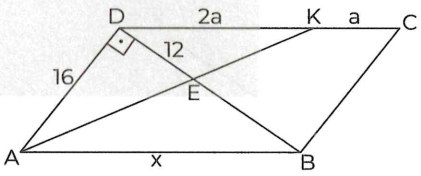
[AD] // [FK]

|BE| = 8 br, |EC| = 16 br, |FK| = x

⇒ x = ?

A) 3 B) 4 C) 6 D) 8 E) 12

20.



ABCD **paralelkenar** (parallelogram)

[DB] ⊥ [AD], |DK| = 2a, |KC| = a

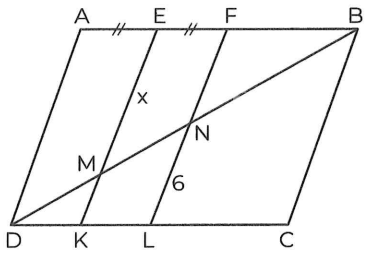
|DE| = 12 br, |AD| = 16 br, |AB| = x

⇒ x = ?

A) 34 B) 32 C) 30 D) 26 E) 24

PUZA ACADEMY

21.



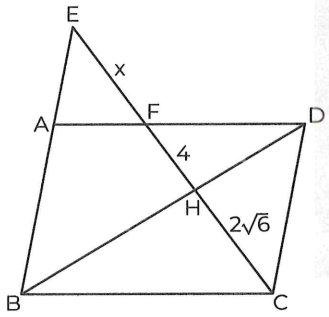
ABCD **paralelkenar** (parallelogram)

|AE| = |EF|, |DL| = |LC|, |NL| = 6 br, |EM| = x

⇒ x = ?

A) 3 B) 6 C) 9 D) 10 E) 12

22.



ABCD **paralelkenar** (parallelogram)

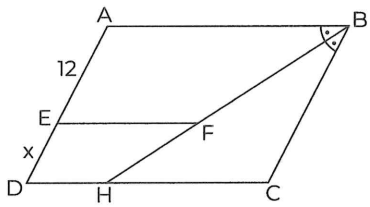
[BD] **köşegen** (diagonal)

|FH| = 4 br, |HC| = $2\sqrt{6}$ br, |EF| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

23.



ABCD **paralelkenar** (parallelogram)

[HB] **açıortay** (bisector)

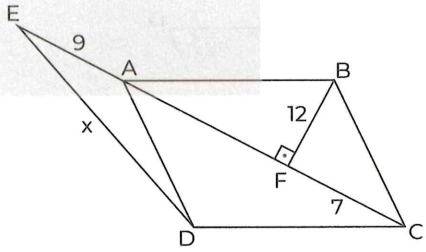
[EF] // [AB], 6·|DH| = 4·|EF| = 3·|BC|

|AE| = 12 br, |DE| = x

⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 8

24.



ABCD **paralelkenar** (parallelogram)

[BF] ⊥ [EC], C, A, E **doğrusal** (linear)

|CF| = 7 br, |AE| = 9 br, |FB| = 12 br, |DE| = x

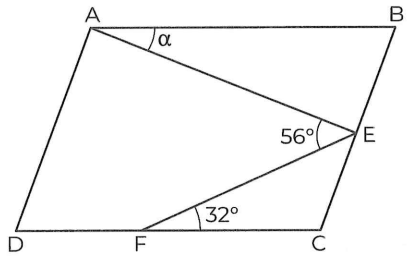
⇒ x = ?

A) 12 B) 15 C) 16 D) 20 E) 28

PUZA ACADEMY

IRANINOVIN

1.



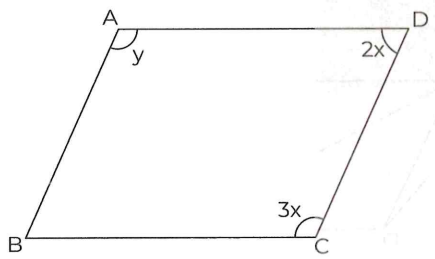
ABCD **paralelkenar** (parallelogram)

$m(\widehat{EFC}) = 32°$, $m(\widehat{AEF}) = 56°$, $m(\widehat{BAE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 15 B) 17 C) 23 D) 24 E) 29

2.



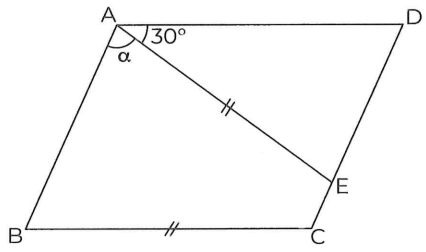
ABCD **paralelkenar** (parallelogram)

$m(\widehat{BAD}) = y$, $m(\widehat{BCD}) = 3x$, $m(\widehat{ADC}) = 2x$

$\Rightarrow y - x = ?$

A) 18 B) 36 C) 72 D) 108 E) 144

3.



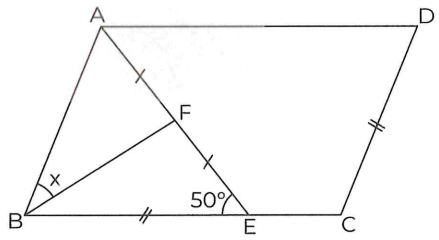
ABCD **paralelkenar** (parallelogram)

$|AE| = |BC|$, $m(\widehat{EAD}) = 30°$, $m(\widehat{BAE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 75 B) 70 C) 65 D) 60 E) 55

4.



ABCD **paralelkenar** (parallelogram)

$|BE| = |CD|$, $|AF| = |FE|$

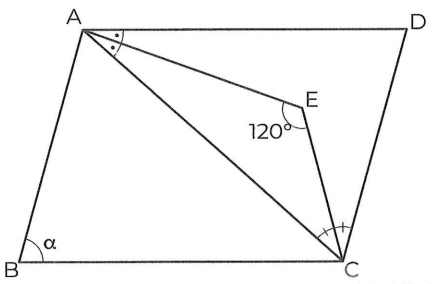
$m(\widehat{AEB}) = 50°$, $m(\widehat{ABF}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

5.



ABCD **paralelkenar** (parallelogram)

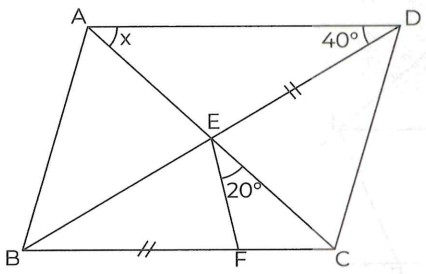
[AE] ve [EC] **açıortay** (bisector)

$m(\widehat{AEC}) = 120°$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 50 C) 40 D) 30 E) 20

6.



ABCD **paralelkenar** (parallelogram)

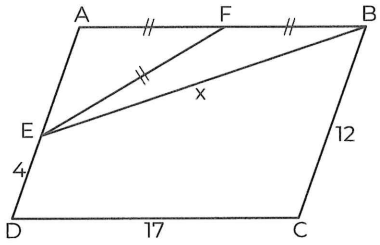
$[BD] \cap [AC] = \{E\}$, $|BF| = |ED|$

$m(\widehat{FEC}) = 20°$, $m(\widehat{ADB}) = 20°$, $m(\widehat{CAD}) = x$

$\Rightarrow x = ?$

A) 60 B) 55 C) 50 D) 45 E) 40

7.



ABCD **paralelkenar** (parallelogram)

$|AF| = |FB| = |EF|$

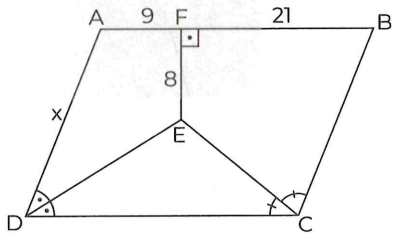
$|ED| = 4$ br, $|BC| = 12$ br, $|DC| = 17$ br

$|EB| = x$

$\Rightarrow x = ?$

A) 8 B) 10 C) 12 D) 15 E) 18

8.



ABCD **paralelkenar** (parallelogram)

[ED], [EC] **açıortay** (bisector)

$|EF| = 8$ br, $|AF| = 9$ br, $|FB| = 21$ br, $|AD| = x$

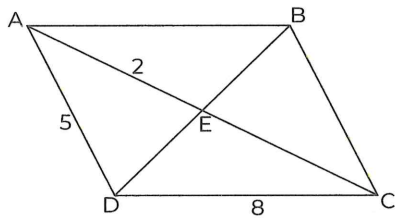
$\Rightarrow x = ?$

A) 17 B) 20 C) 25 D) 29 E) 30

PUZA ACADEMY

IRANINOVIN

9.



ABCD **paralelkenar** (parallelogram)

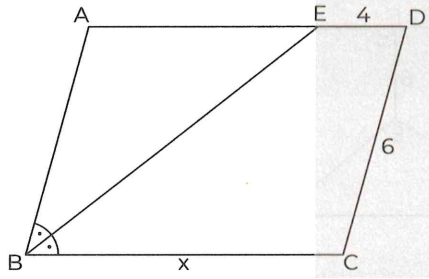
[AC], [BD] köşegen (diagonal)

|AE| = 2 br, |AD| = 5 br, |CD| = 8 br

⇒ |BD| = ?

A) $6\sqrt{2}$ B) $8\sqrt{2}$ C) $9\sqrt{2}$ D) $10\sqrt{2}$ E) $12\sqrt{2}$

10.



ABCD **paralelkenar** (parallelogram)

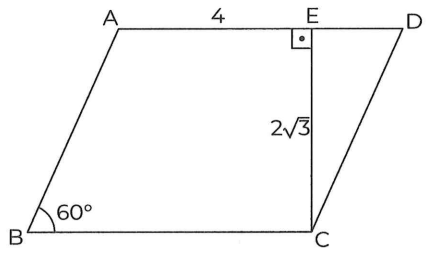
[BE] **açıortay** (bisector)

|ED| = 4 br, |DC| = 6 br, |BC| = x

⇒ x = ?

A) 12 B) 10 C) 8 D) 6 E) 4

11.



ABCD **paralelkenar** (parallelogram)

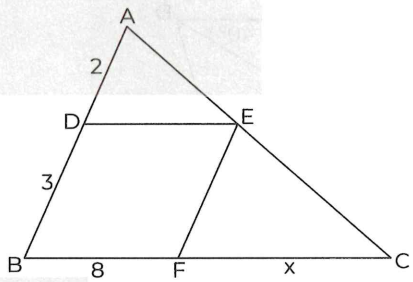
[CE] ⊥ [AD], $m(\widehat{ABC}) = 60°$

|EC| = $2\sqrt{3}$ br, |AE| = 4 br

⇒ **Çevre** (Perimeter)(ABCD) = ?

A) 40 B) 36 C) 32 D) 28 E) 20

12.



BDEF **paralelkenar** (parallelogram)

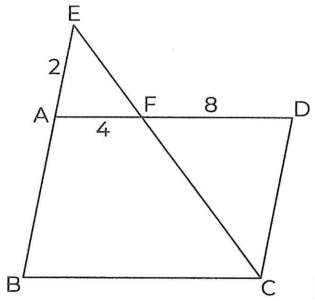
|AD| = 2 br, |DB| = 3 br, |BF| = 8 br, |FC| = x

⇒ x = ?

A) 12 B) 10 C) 8 D) 6 E) 4

PUZA ACADEMY

13.



ABCD **paralelkenar** (parallelogram)

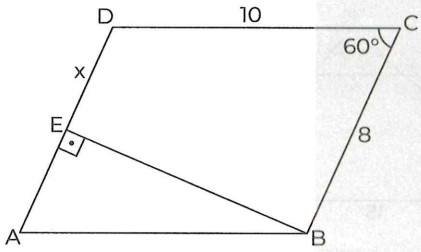
E, A, B ve E, F, C doğrusal (linear)

$|AE| = 2$ br, $|AF| = 4$ br, $|FD| = 8$ br

$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) 32 B) 36 C) 38 D) 40 E) 42

14.



ABCD **paralelkenar** (parallelogram)

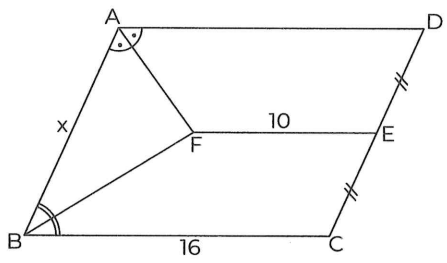
$[BE] \perp [AD]$, $m(\widehat{DCB}) = 60°$

$|CB| = 8$ br, $|DC| = 10$ br, $|DE| = x$

$\Rightarrow$ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

15.



ABCD **paralelkenar** (parallelogram)

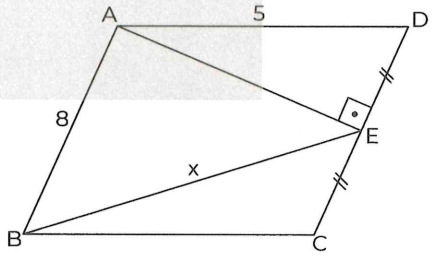
[AF], [BF] **açıortay** (bisector)

$|DE| = |EC|$, $|FE| = 10$ br, $|BC| = 16$ br, $|AB| = x$

$\Rightarrow$ x = ?

A) 4 B) 6 C) 10 D) 12 E) 16

16.



ABCD **paralelkenar** (parallelogram)

$[AE] \perp [DC]$, $|DE| = |CE|$

$|AD| = 5$ br, $|AB| = 8$ br, $|BE| = x$

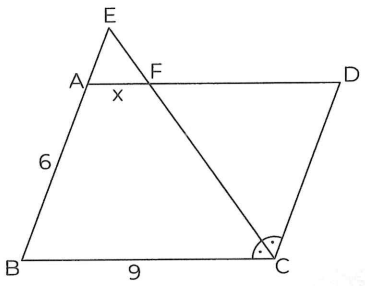
$\Rightarrow$ x = ?

A) $2\sqrt{3}$ B) $4\sqrt{3}$ C) 6 D) $\sqrt{73}$ E) 8

PUZA ACADEMY

IRANINOVIN

17.



ABCD **paralelkenar** (parallelogram)

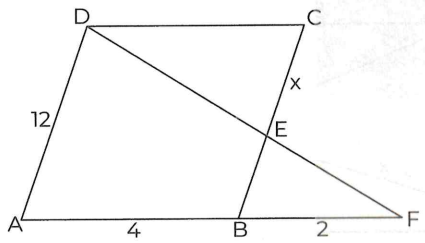
[CE] **açıortay** (bisector)

|AB| = 6 br, |BC| = 9 br, |AF| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

18.



ABCD **paralelkenar** (parallelogram)

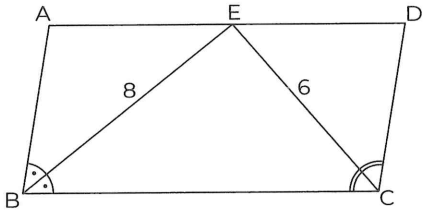
|AB| = 4 br, |BF| = 2 br

|AD| = 12 br, |EC| = x

⇒ x = ?

A) 2 B) 4 C) 6 D) 8 E) 10

19.



ABCD **paralelkenar** (parallelogram)

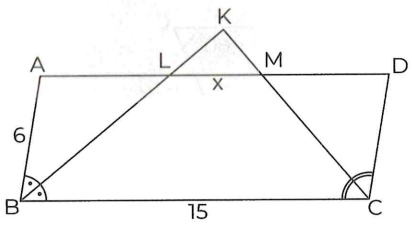
[BE], [EC] **açıortay** (bisector)

|BE| = 8 br, |EC| = 6 br

⇒ |AD| = ?

A) 10 B) 12 C) 14 D) 16 E) 18

20.



ABCD **paralelkenar** (parallelogram)

[KB], [KC] **açıortay** (bisector)

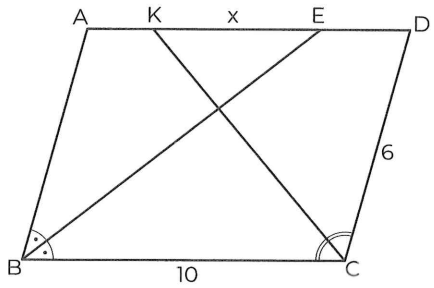
|AB| = 6 br, |BC| = 15 br, |LM| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

PUZA ACADEMY

21.



ABCD **paralelkenar** (parallelogram)

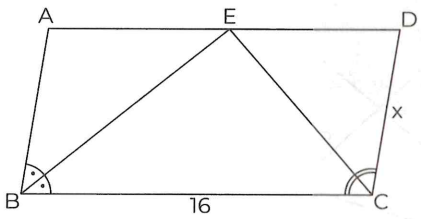
[BE] ve [CK] **açıortay** (bisector)

|BC| = 10 br, |CD| = 6 br, |KE| = x

⇒ x = ?

A) 10 B) 8 C) 6 D) 4 E) 2

22.



ABCD **paralelkenar** (parallelogram)

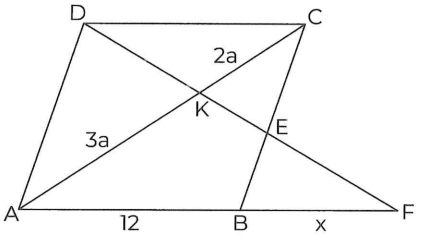
[EB], [EC] **açıortay** (bisector)

|BC| = 16 br, |DC| = x

⇒ x = ?

A) 8 B) 6 C) 5 D) 4 E) 2

23.



ABCD **paralelkenar** (parallelogram)

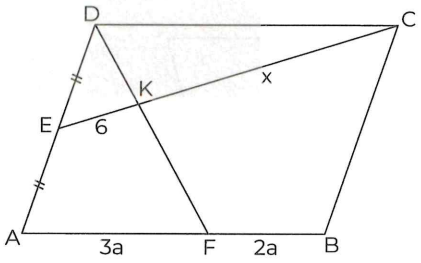
|AK| = 3a, |KC| = 2a

|AB| = 12 br, |BF| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

24.



ABCD **paralelkenar** (parallelogram)

|AE| = |ED|, |AF| = 3a, |FB| = 2a

|EK| = 6 br, |KC| = x

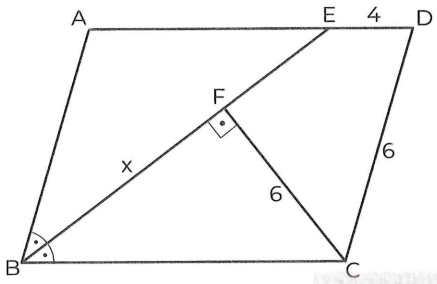
⇒ x = ?

A) 20 B) 18 C) 16 D) 14 E) 12

PUZA ACADEMY

IRANINOVIN

25.



ABCD **paralelkenar** (parallelogram)

[EB] **açıortay** (bisector)

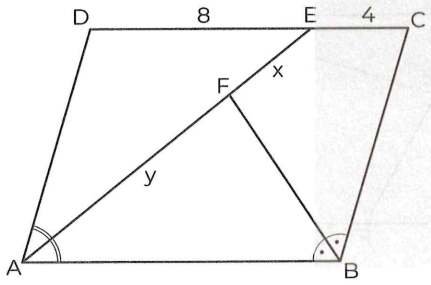
[FC] ⊥ [BE], |ED| = 4 br, |FC| = |CD| = 6 br

|AC| = x

⇒ x = ?

A) 2 B) 4 C) 5 D) 6 E) 8

26.



ABCD **paralelkenar** (parallelogram)

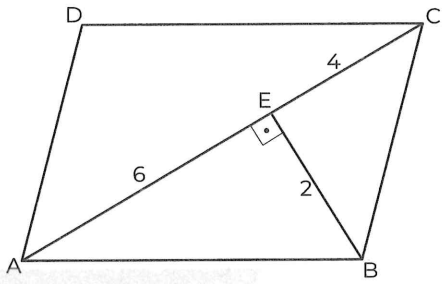
[BF] ve [AE] **açıortay** (bisector)

|DE| = 8 br, |EC| = 4 br, |EF| = x, |AF| = y

⇒ $\frac{x}{y}$ = ?

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 3

27.



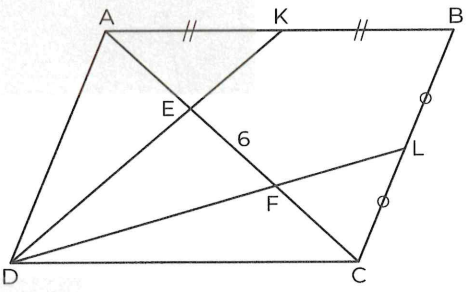
ABCD **paralelkenar** (parallelogram)

[AB] ⊥ [AC], |AE| = 6 br, |EC| = 4 br, |EB| = 2 br

⇒ **Alan** (Area)(ABCD) = ?

A) 10 B) 15 C) 20 D) 25 E) 30

28.



ABCD **paralelkenar** (parallelogram)

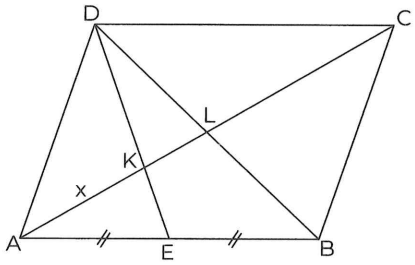
|AK| = |KB|, |BL| = |LC|, |EF| = 6 br

⇒ |AC| = ?

A) 12 B) 18 C) 24 D) 30 E) 36

PUZA ACADEMY

29.



ABCD **paralelkenar** (parallelogram)

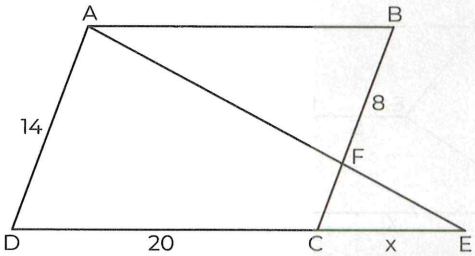
|AE| = |EB|

|AC| = 24 br, |AK| = x

⇒ x = ?

A) 12 B) 10 C) 8 D) 6 E) 4

30.



ABCD **paralelkenar** (parallelogram)

A, F, E **doğrusal** (linear)

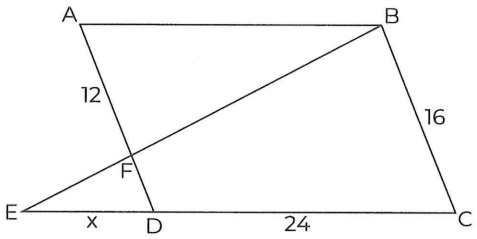
|BF| = 8 br, |AD| = 14 br, |DC| = 20 br

|CE| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 15 E) 16

31.



ABCD **paralelkenar** (parallelogram)

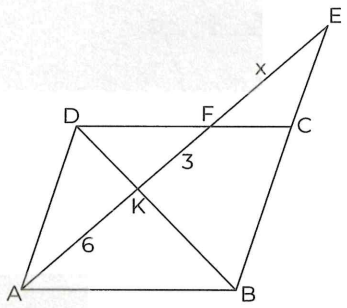
E, F, B **doğrusal** (linear)

|AF| = 12 br, |BC| = 16 br, |CD| = 24 br, |ED| = x

⇒ x = ?

A) 6 B) 8 C) 10 D) 12 E) 16

32.



ABCD **paralelkenar** (parallelogram)

|AK| = 6 br, |KF| = 3 br, |FE| = x

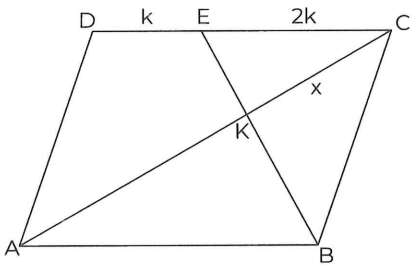
⇒ x = ?

A) 9 B) 8 C) 7 D) 6 E) 5

PUZA ACADEMY

IRANINOVIN

33.



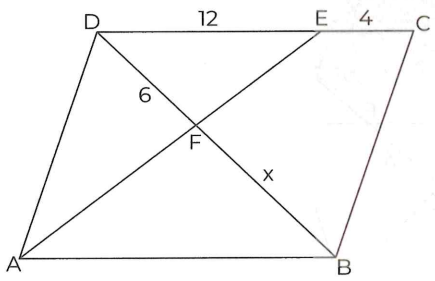
ABCD **paralelkenar** (parallelogram)

|AC| = 30 br, |DE| = k, |EC| = 2k, |KC| = x

⇒ x = ?

A) 6 B) 9 C) 12 D) 15 E) 18

34.



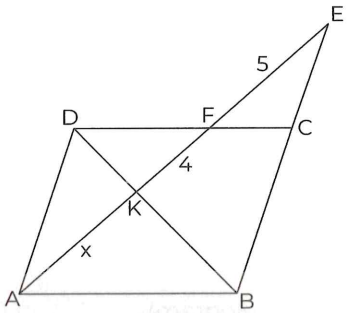
ABCD **paralelkenar** (parallelogram)

|DE| = 12 br, |EC| = 4 br, |DF| = 6 br, |FB| = x

⇒ x = ?

A) 20 B) 16 C) 12 D) 10 E) 8

35.



ABCD **paralelkenar** (parallelogram)

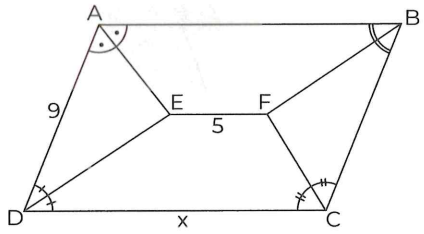
|EF| = 5 br, |FK| = 4 br, |AK| = x

⇒ x = ?

A) 7 B) 6 C) 5 D) 4 E) 3

PUZA ACADEMY

36.



ABCD **paralelkenar** (parallelogram)

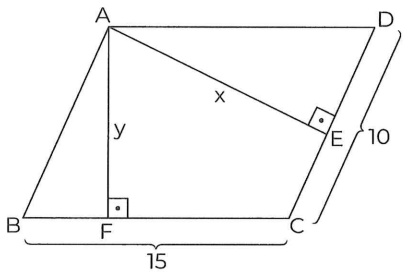
[AE], [FB], [ED], [FC] **açıortay** (bisector)

|EF| = 5 br, |AD| = 9 br, |CD| = x

⇒ x = ?

A) 2 B) 4 C) 6 D) 7 E) 14

1.



ABCD **paralelkenar** (parallelogram)

[AE] ⊥ [DC], [AF] ⊥ [BC], |BC| = 15 br

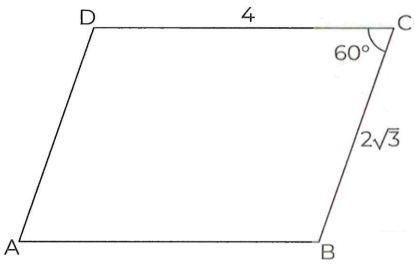
|CD| = 10 br, |AE| = x, |AF| = y

x + y = 20

⇒ y = ?

A) 6 B) 8 C) 10 D) 12 E) 14

2.



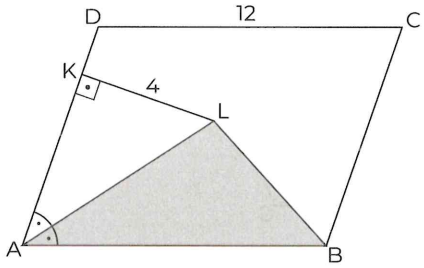
ABCD **paralelkenar** (parallelogram)

|DC| = 4 br, |BC| = $2\sqrt{3}$ br, $m(\widehat{DCB}) = 60°$

⇒ **Alan** (Area)(ABCD) = ?

A) 36 B) 24 C) 12 D) 8 E) 4

3.



ABCD **paralelkenar** (parallelogram)

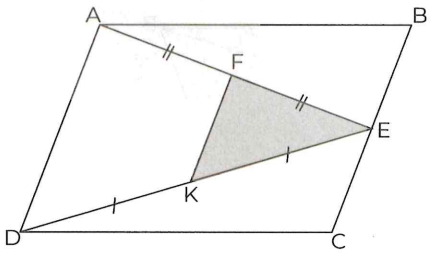
[AL] **açıortay** (bisector)

[AD] ⊥ [KL], |KL| = 4 br, |DC| = 12 br

⇒ **Alan** (Area) $(\widehat{ABL})$ = ?

A) 48 B) 42 C) 36 D) 32 E) 24

4.



ABCD **paralelkenar** (parallelogram)

|AF| = |FE|, |DK| = |KE|

Alan (Area)(ABCD)= 72 br^2

⇒ **Alan** (Area) $(\widehat{EFK})$ = ?

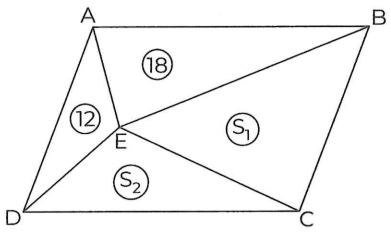
A) 9 B) 10 C) 12 D) 16 E) 18

PUZA ACADEMY

@galata1010

IRANINOVIN

5.



ABCD **paralelkenar** (parallelogram)

Alan (Area) $(\widehat{ADE})$ = 12 br^2

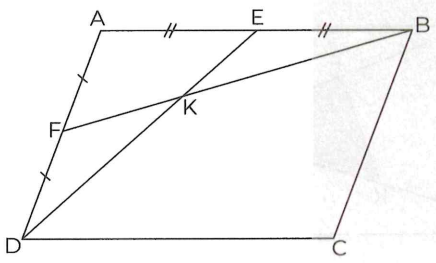
Alan (Area) $(\widehat{AEB})$ = 18 br^2

Alan (Area) $(\widehat{EBC})$ = S_1, **Alan**(Area) $(\widehat{EDC})$ = S_2

$\Rightarrow$ $S_1 - S_2 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

6.



ABCD **paralelkenar** (parallelogram)

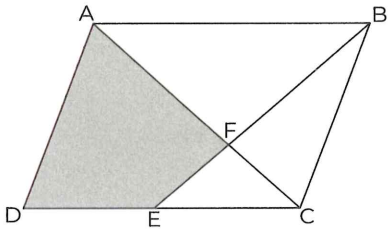
$|AE| = |EB|$, $|AF| = |FD|$, $[ED] \cap [FB] = \{K\}$

Alan (Area) $(\widehat{EBK})$ = 4 br^2

$\Rightarrow$ **Alan**(Area)(ABCD) = ?

A) 36 B) 38 C) 42 D) 48 E) 56

7.



ABCD **paralelkenar** (parallelogram)

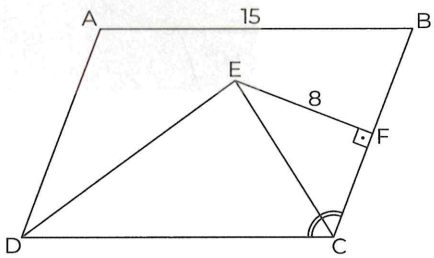
$3|EC| = |DE|$

Alan (Area)(AFED) = 19 br^2

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 25 B) 36 C) 40 D) 44 E) 54

8.



ABCD **paralelkenar** (parallelogram)

$m(\widehat{BCE}) = m(\widehat{ECD})$

$[EF] \perp [BC]$

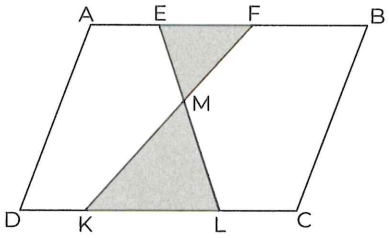
$|EF| = 8$ br, $|AB| = 15$ br

$\Rightarrow$ **Alan** (Area) $(\widehat{EDC})$ = ?

A) 40 B) 45 C) 60 D) 75 E) 120

PUZA ACADEMY

9.



ABCD **paralelkenar** (parallelogram)

$|DC| = 3|KL|$, $|AB| = 6|EF|$

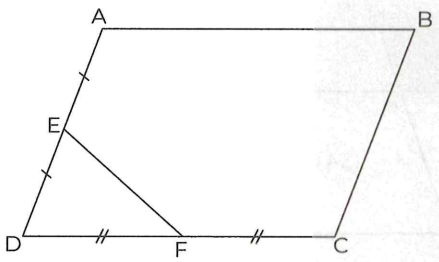
Alan (Area)(ABCD) = 72 br^2

⇒**Taralı Alanlar toplamı kaç br^2 dir?**

What is the shaded area?

A) 5 B) 6 C) 10 D) 12 E) 24

10.



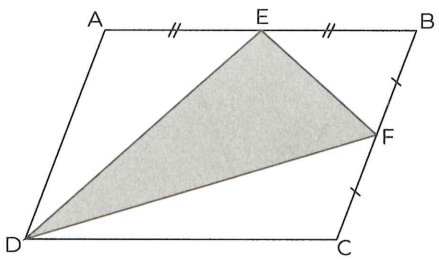
ABCD **paralelkenar** (parallelogram)

$|AE| = |ED|$, $|DF| = |FC|$

$$\Rightarrow \frac{\textbf{Alan (Area)}\ (\widehat{DEF})}{\textbf{Alan (Area)}\ (ABCD)} = ?$$

A) $\frac{1}{8}$ B) $\frac{1}{7}$ C) $\frac{1}{6}$ D) $\frac{1}{5}$ E) $\frac{1}{4}$

11.



ABCD **paralelkenar** (parallelogram)

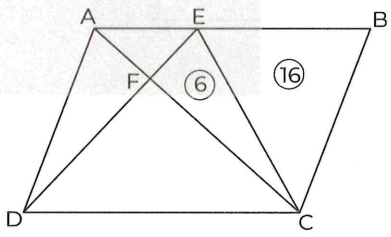
$|AE| = |EB|$, $|BF| = |FC|$

Alan (Area)(ABCD) = 24 br^2

⇒ **Alan** (Area) $(\widehat{DEF})$ = ?

A) 6 B) 7 C) 8 D) 9 E) 10

12.



ABCD **paralelkenar** (parallelogram)

Alan (Area) $(\widehat{EFC})$ = 6 br^2

Alan (Area) $(\widehat{EBC})$ = 16 br^2

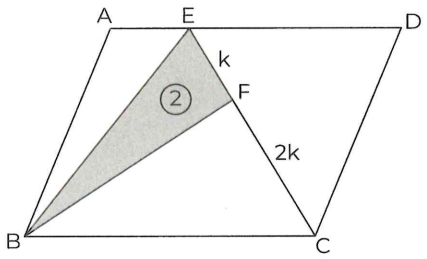
⇒ **Alan** (Area)(ABCD) = ?

A) 48 B) 50 C) 54 D) 56 E) 60

PUZA ACADEMY

IRANINOVIN

13.



ABCD **paralelkenar** (parallelogram)

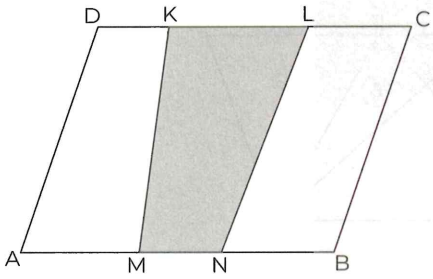
|EF| = k, |FC| = 2k

Alan (Area) $(\widehat{EBF})$ = 2 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 4 B) 6 C) 8 D) 12 E) 24

14.



ABCD **paralelkenar** (parallelogram)

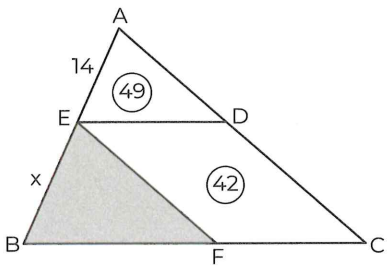
3|KL| = |DC|, 5|MN| = |AB|

Alan (Area)(ABCD) = 240 br^2

⇒ **Alan** (Area)(KLMN) = ?

A) 128 B) 96 C) 64 D) 32 E) 16

15.



CDEF **paralelkenar** (parallelogram)

Alan (Area)(AED) = 49 br^2

Alan (Area)(CDEF) = 42 br^2

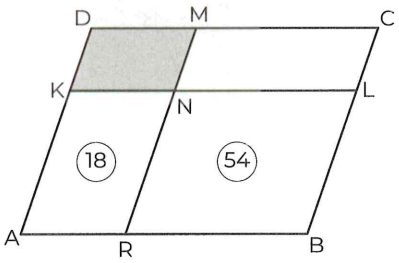
|AE| = 14 br, |EB| = x

⇒ x = ?

A) 16 B) 12 C) 10 D) 8 E) 6

PUZA ACADEMY

16.



ABCD **paralelkenar** (parallelogram)

Alan (Area)(ARNK) = 18 br^2

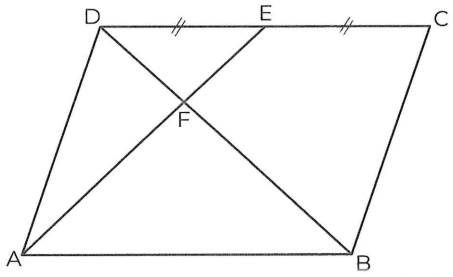
Alan (Area)(RBLN) = 54 br^2

Alan (Area)(ABCD) = 108 br^2

⇒ **Alan** (Area)(DKNM) = ?

A) 9 B) 12 C) 16 D) 18 E) 36

17.

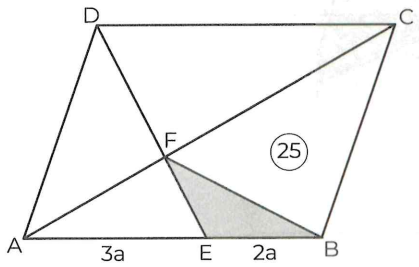


ABCD **paralelkenar** (parallelogram)

$|DE| = |EC| \Rightarrow \dfrac{A(\widehat{DAF}) + A(BCEF)}{A(ABCD)} = ?$

A) $\frac{1}{2}$ B) $\frac{1}{6}$ C) $\frac{7}{12}$ D) $\frac{7}{6}$ E) $\frac{6}{5}$

18.



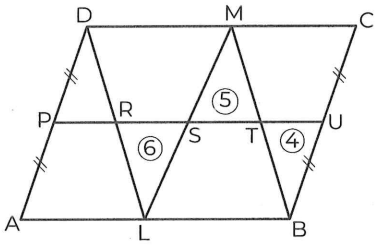
ABCD **paralelkenar** (parallelogram)

$|AE| = 3a$, $|EB| = 2a$, **Alan** (Area)$(\widehat{BCF}) = 25$ br^2

$\Rightarrow$ **Alan** (Area)$(\widehat{BEF}) = ?$

A) 24 B) 18 C) 16 D) 12 E) 6

19.



ABCD **paralelkenar** (parallelogram)

$|AP| = |PD|$, $|BU| = |UC|$

Alan (Area)$(\widehat{BTU}) = 4$ br^2

Alan (Area)$(\widehat{TMS}) = 5$ br^2

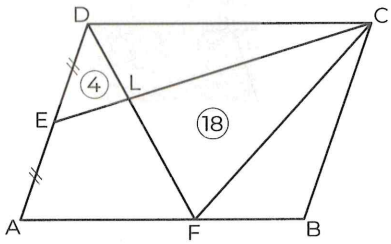
Alan (Area)$(\widehat{SRL}) = 6$ br^2

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 80 B) 70 C) 68 D) 64 E) 56

PUZA ACADEMY

20.



ABCD **paralelkenar** (parallelogram)

$|AE| = |ED|$, **Alan** (Area)$(\widehat{EDL}) = 4$ br^2

Alan (Area)$(\widehat{CFL}) = 18$ br^2

$\Rightarrow$ **Alan** (Area)$(\widehat{DLC}) = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

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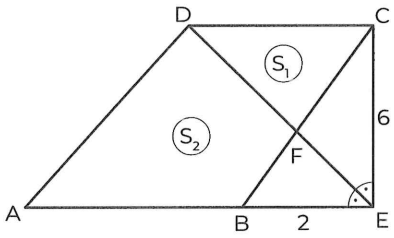
21.



ABCD **paralelkenar** (parallelogram)

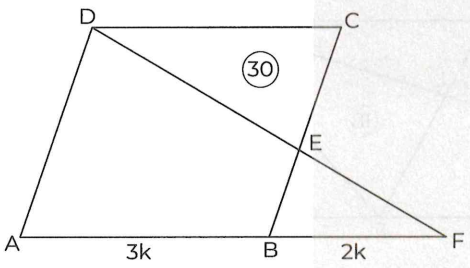
[DE] **açıortay** (bisector)

|BE| = 2 br, |EC| = 6 br

$\Rightarrow \frac{S_1}{S_2} = ?$

A) $\frac{1}{5}$ B) $\frac{1}{3}$ C) $\frac{3}{5}$ D) 2 E) 4

22.



ABCD **paralelkenar** (parallelogram)

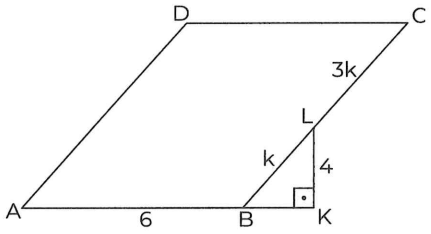
|AB| = 3k, |BF| = 2k

Alan (Area) $(\widehat{DEC})$ = 30 br^2

$\Rightarrow$ **Alan** (Area) $(\widehat{BEF})$ = ?

A) 40 B) 20 C) 18 D) $\frac{40}{3}$ E) $\frac{20}{3}$

23.



ABCD **paralelkenar** (parallelogram)

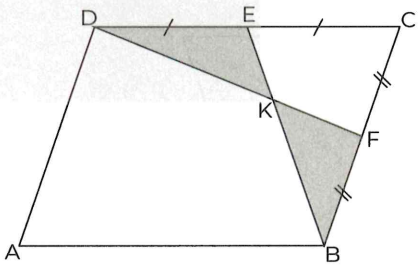
[BK] $\perp$ [LK], |BL| = k, |LC| = 3k

|AB| = 6 br, |LK| = 4 br

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 100 B) 96 C) 92 D) 86 E) 82

24.



ABCD **paralelkenar** (parallelogram)

|DE| = |EC|, |BF| = |FC|

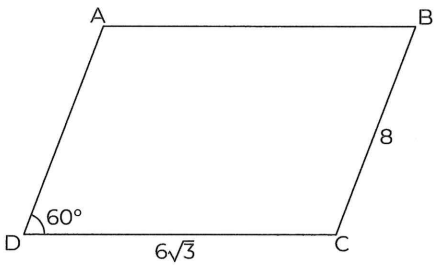
Alan (Area)(ABCD) = 48 br^2

$\Rightarrow$ **Alan** (Area) $(\widehat{DEK})$ + **Alan** (Area) $(\widehat{KFB})$ = ?

A) 4 B) 8 C) 12 D) 16 E) 24

PUZA ACADEMY

1.



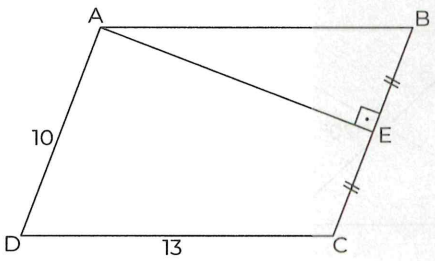
ABCD **paralelkenar** (parallelogram)

$m(\widehat{ADC}) = 60°$, $|BC| = 8$ br, $|DC| = 6\sqrt{3}$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 36 B) 45 C) 48 D) 64 E) 72

2.



ABCD **paralelkenar** (parallelogram)

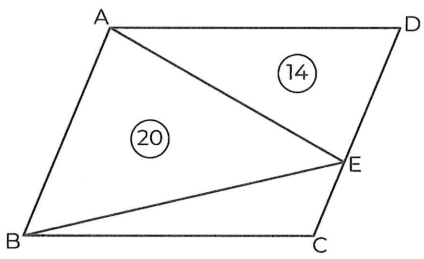
$[AE] \perp [BC]$, $|BE| = |EC|$

$|AD| = 10$ br, $|DC| = 13$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 80 B) 90 C) 100 D) 110 E) 120

3.



ABCD **paralelkenar** (parallelogram)

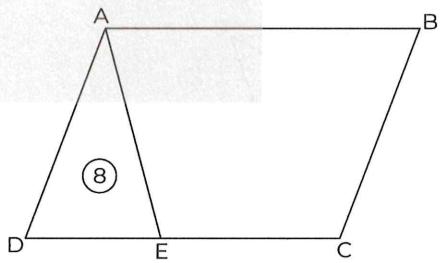
Alan (Area) $(\widehat{AED}) = 14$ br^2

Alan (Area) $(\widehat{AEB}) = 20$ br^2

⇒ **Alan** (Area) $(\widehat{BCE}) = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

4.



ABCD **paralelkenar** (parallelogram)

$3|DE| = |EC|$, **Alan** (Area) $(\widehat{ADE}) = 8$ br^2

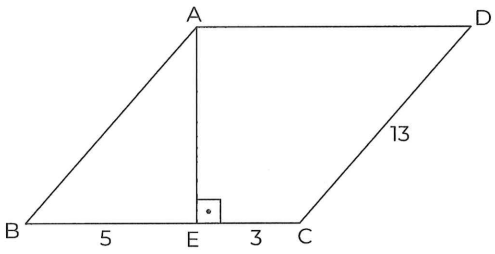
⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 32 C) 48 D) 64 E) 108

PUZA ACADEMY

IRANINOVIN

5.



ABCD **paralelkenar** (parallelogram)

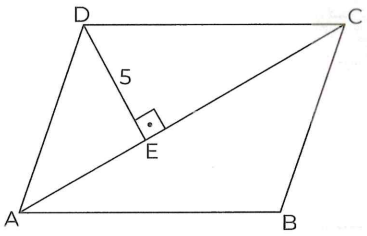
[AE] ⊥ [BC]

|BE| = 5 br, |EC| = 3 br, |CD| = 13 br

⇒ **Alan** (Area)(ABCD) = ?

A) 168 B) 144 C) 96 D) 72 E) 48

6.



ABCD **paralelkenar** (parallelogram)

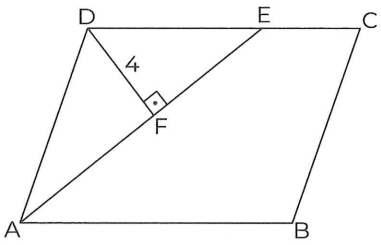
[DE] ⊥ [AC]

|DE| = 5 br, |AC| = 8 br

⇒ **Alan** (Area)(ABCD) = ?

A) 90 B) 80 C) 75 D) 50 E) 40

7.



ABCD **paralelkenar** (parallelogram)

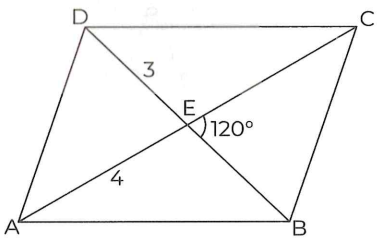
[DF] ⊥ [AE]

|DE| = 3k, |EC| = 2k, |DF| = 4 br, |AE| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 20 B) 24 C) 28 D) 32 E) 40

8.



ABCD **paralelkenar** (parallelogram)

|AE| = 4 br, |DE| = 3 br

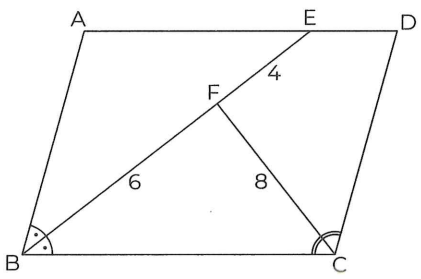
$m(\widehat{BEC}) = 120°$

⇒ **Alan** (Area)(ABCD) = ?

A) 6 B) $6\sqrt{3}$ C) 12 D) $12\sqrt{3}$ E) 24

PUZA ACADEMY

9.



ABCD **paralelkenar** (parallelogram)

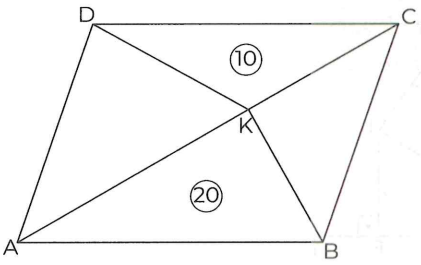
[BE] ve [CF] **açıortay** (bisector)

|EF| = 4 br, |FB| = 6 br, |FC| = 8 br

⇒ **Alan** (Area)(ABCD) = ?

A) 120 B) 100 C) 90 D) 80 E) 60

10.



ABCD **paralelkenar** (parallelogram)

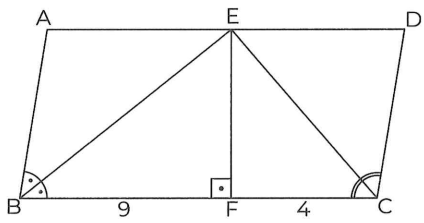
Alan (Area)($\widehat{DKC}$) = 10 br^2

Alan (Area)($\widehat{AKB}$) = 20 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 80 B) 60 C) 50 D) 40 E) 30

11.



ABCD **paralelkenar** (parallelogram)

[BE] ve [EC] **açıortay** (bisector)

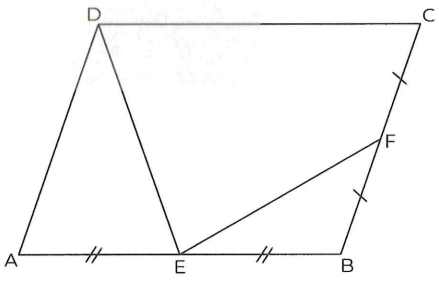
[EF] ⊥ [BC], |BF| = 9 br, |FC| = 4 br

⇒ **Alan** (Area)(ABCD) = ?

A) 60 B) 64 C) 68 D) 72 E) 78

PUZA ACADEMY

12.



ABCD **paralelkenar** (parallelogram)

Alan (Area)($\widehat{DAE}$) + **Alan** (Area)($\widehat{EBF}$) = 48 br^2

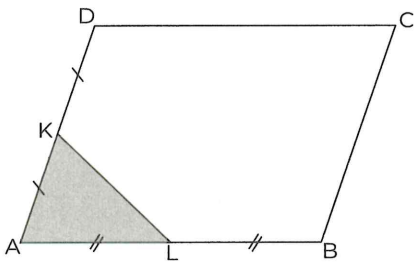
|AE| = |EB|, |BF| = |FC|

⇒ **Alan** (Area)(ABCD) = ?

A) 142 B) 128 C) 72 D) 64 E) 32

IRANINOVIN

13.



ABCD **paralelkenar** (parallelogram)

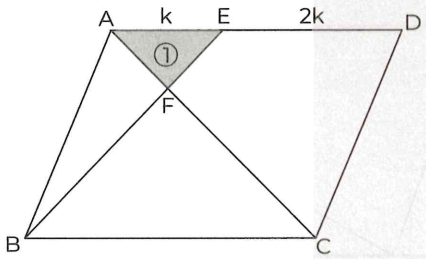
|AK| = |KD|, |AL| = |LB|

Alan (Area)(ABCD) = 160 br^2

⇒ **Alan** (Area) $(\widehat{KAL})$ = ?

A) 10 B) 15 C) 20 D) 25 E) 30

14.



ABCD **paralelkenar** (parallelogram)

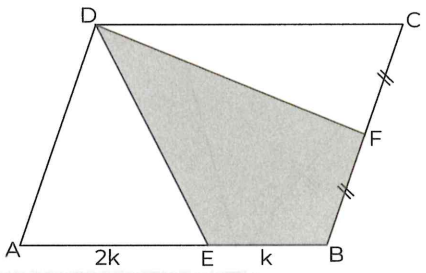
|AE| = k, |ED| = 2k

Alan (Area) $(\widehat{AFE})$ = 1 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 30 B) 26 C) 24 D) 18 E) 12

15.



ABCD **paralelkenar** (parallelogram)

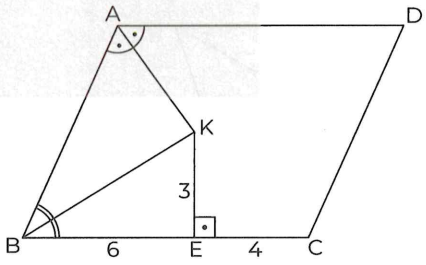
|BF| = |FC|, |AE| = 2k, |EB| = k

Alan (Area)(ABCD) = 36 br^2

⇒ **Alan** (Area)(DEBF) = ?

A) 15 B) 28 C) 32 D) 36 E) 48

16.



ABCD **paralelkenar** (parallelogram)

[AK], [BC] **açıortay** (bisector)

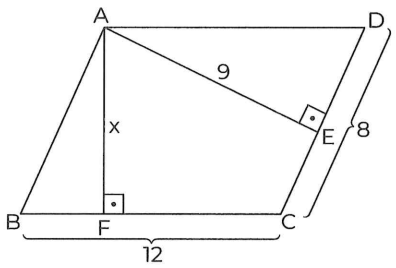
[KE] ⊥ [BC], |KE| = 3 br, |BE| = 6 br, |EC| = 4 br

⇒ **Alan** (Area)(ABCD) = ?

A) 60 B) 45 C) 30 D) 15 E) 10

PUZA ACADEMY

17.



ABCD **paralelkenar** (parallelogram)

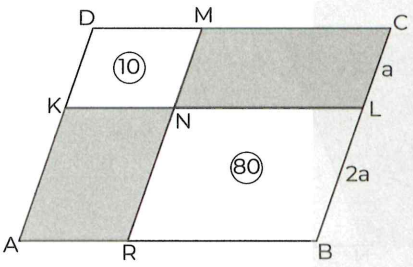
[AE] ⊥ [CD], [AF] ⊥ [BC]

|AE| = 9 br, |CD| = 8 br, |BC| = 12 br, |AF| = x

⇒ x = ?

A) 6 B) 7 C) 8 D) 9 E) 10

18.



ABCD **paralelkenar** (parallelogram)

|CL| = a, |LB| = 2a

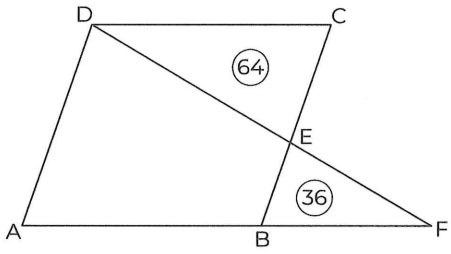
Alan (Area)(DKNM) = 10 br^2

Alan (Area)(BLNR) = 80 br^2

⇒ **Alan** (Area)(CLNM) + **Alan** (Area)(ARNK) = ?

A) 40 B) 50 C) 60 D) 70 E) 80

19.



ABCD **paralelkenar** (parallelogram)

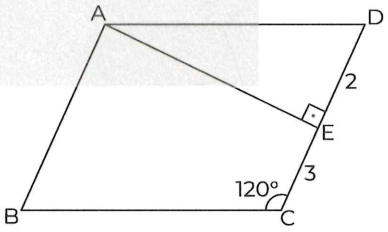
Alan (Area)($\widehat{DEC}$) = 64 br^2

Alan (Area)($\widehat{BEF}$) = 36 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 96 B) 112 C) 172 D) 192 E) 224

20.



ABCD **paralelkenar** (parallelogram)

[AE] ⊥ [CD], |CE| = 3 br, |ED| = 2 br

$m(\widehat{BCD}) = 120°$

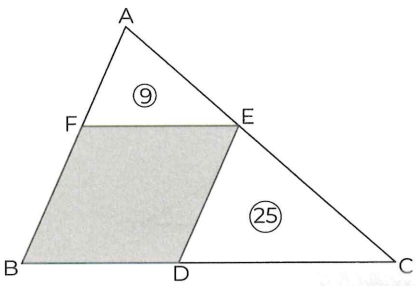
⇒ **Alan** (Area)(ABCD) = ?

A) $28\sqrt{3}$ B) $25\sqrt{3}$ C) $10\sqrt{3}$ D) 10 E) 5

PUZA ACADEMY

IRANINOVIN

21.



BDEF **paralelkenar** (parallelogram)

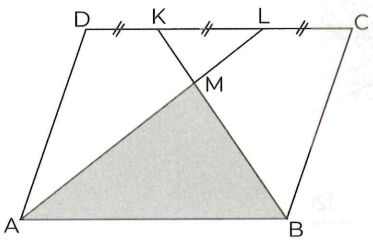
Alan (Area) $(\widehat{AFE}) = 9\ br^2$

Alan (Area) $(\widehat{DEC}) = 25\ br^2$

⇒ **Alan** (Area)(BDEF) = ?

A) 68 B) 64 C) 60 D) 56 E) 30

22.



ABCD **paralelkenar** (parallelogram)

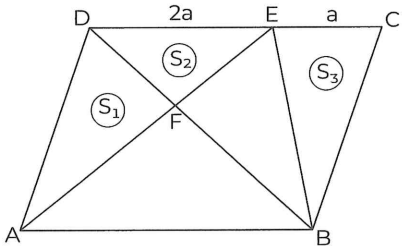
|DK| = |KL| = |LC|

Alan (Area)(ABCD) = 24 br^2

⇒ **Alan** (Area) $(\widehat{AMB})$ = ?

A) 9 B) 18 C) 27 D) 36 E) 54

23.



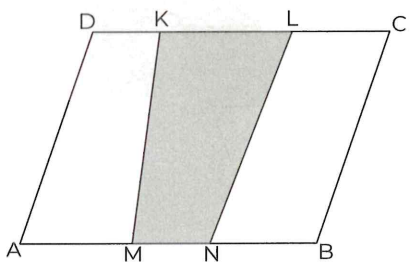
ABCD **paralelkenar** (parallelogram)

|DE| = 2a, |EC| = a

$\Rightarrow \frac{S_1 + S_2}{S_3} = ?$

A) 4 B) 2 C) $\frac{1}{2}$ D) $\frac{1}{4}$ E) $\frac{1}{8}$

24.



ABCD **paralelkenar** (parallelogram)

$|KL| = \frac{|DC|}{2}$, $|MN| = \frac{|AB|}{3}$

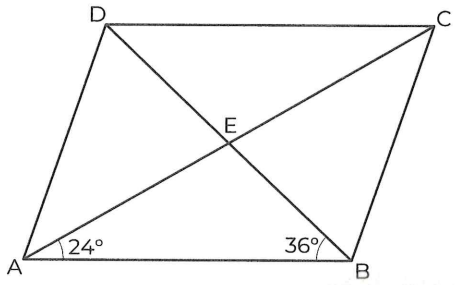
Alan (Area)(KLNM) = 20 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 36 C) 48 D) 64 E) 96

PUZA ACADEMY

25.



ABCD **paralelkenar** (parallelogram)

|BD| = 10 br

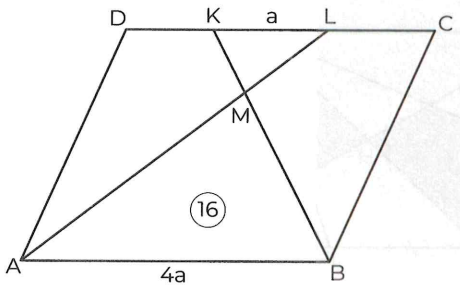
Alan (Area)(ABCD) = $20\sqrt{3}$ br^2

$m(\widehat{CAB}) = 24°$, $m(\widehat{ABD}) = 36°$

⇒ |AC| = ?

A) 12 B) 10 C) 8 D) 6 E) 4

26.



ABCD **paralelkenar** (parallelogram)

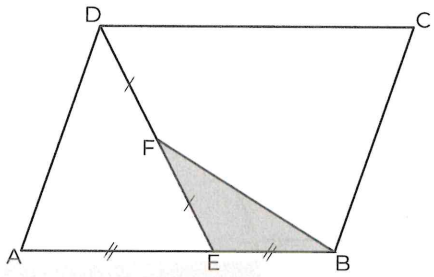
|KL| = a, |AB| = 4a

Alan (Area)(AMB) = 16 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 40 B) 38 C) 36 D) 32 E) 30

27.



ABCD **paralelkenar** (parallelogram)

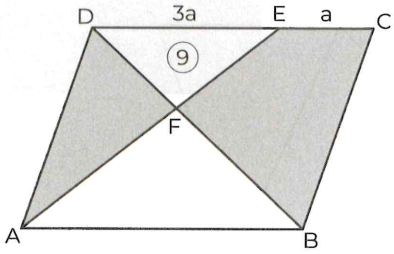
|DF| = |FE|, |AE| = |EB|

Alan (Area)($\widehat{FEB}$) = 5 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 25 B) 30 C) 35 D) 40 E) 45

28.



ABCD **paralelkenar** (parallelogram)

|EC| = a, |DE| = 3a

Alan (Area)($\widehat{DFE}$) = 9 br^2

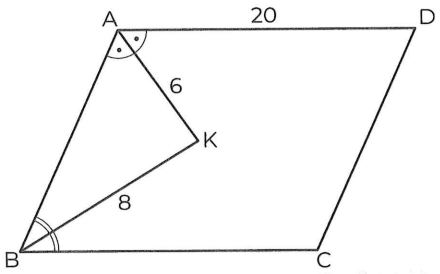
⇒ **Alan** (Area)($\widehat{AFD}$) + **Alan** (Area)(BCEF) = ?

A) 24 B) 31 C) 35 D) 36 E) 42

PUZA ACADEMY

IRANINOVIN

29.



ABCD **paralelkenar** (parallelogram)

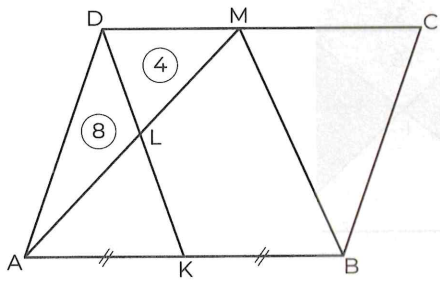
[AK], [BK] **açıortay** (bisector)

|AK| = 6 br, |BK| = 8 br, |AD| = 20 br

⇒ **Alan** (Area)(ABCD) = ?

A) 48 B) 96 C) 144 D) 192 E) 216

30.



ABCD **paralelkenar** (parallelogram)

|AK| = |KB|

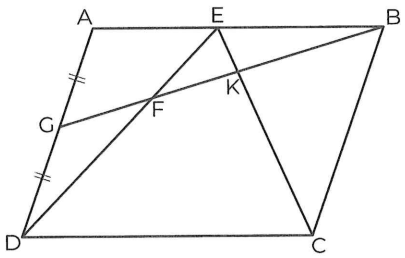
Alan (Area)($\overset{\frown}{ADL}$) = 8 br^2

Alan (Area)($\overset{\frown}{DLM}$) = 4 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 108 B) 96 C) 72 D) 68 E) 54

31.



ABCD **paralelkenar** (parallelogram)

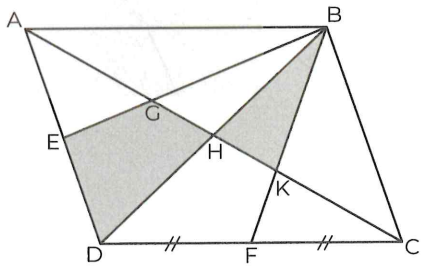
G, F, B **doğrusal** (linear)

|AG| = |GD|, |AE| = |EB|

$$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (\overset{\frown}{EKB})}{\textbf{Alan}\ (\text{Area})\ (\overset{\frown}{DEC})} = ?$$

A) $\frac{1}{10}$ B) $\frac{2}{7}$ C) $\frac{3}{8}$ D) $\frac{1}{5}$ E) $\frac{2}{11}$

32.



ABCD **paralelkenar** (parallelogram)

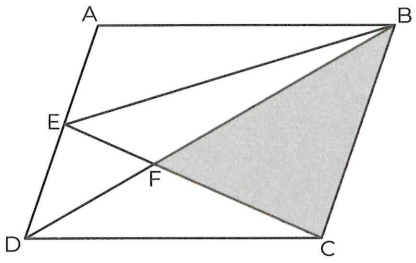
|DF| = |FC|, 2|ED| = |AE|

$$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (\overset{\frown}{BHK})}{\textbf{Alan}\ (\text{Area})\ (EGHD)} = ?$$

A) $\frac{1}{2}$ B) $\frac{1}{6}$ C) $\frac{3}{5}$ D) $\frac{5}{7}$ E) $\frac{7}{25}$

PUZA ACADEMY

33.



ABCD **paralelkenar** (parallelogram)

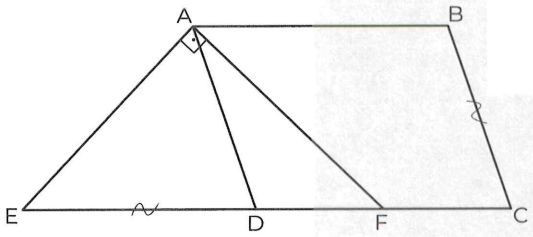
Alan (Area) ($\widehat{DEF}$) = 4 br^2

Alan (Area) ($\widehat{AEB}$) = 12 br^2

⇒ **Alan** (Area) ($\widehat{FBC}$) = ?

A) 8 B) 10 C) 12 D) 14 E) 16

34.



ABCD **paralelkenar** (parallelogram)

|ED| = |BC|, $m(\widehat{AEC}) = 2 \cdot m(\widehat{FAB})$, |AE| = 8 br

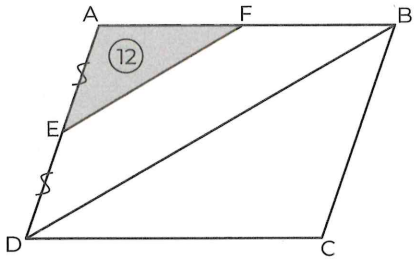
Alan (Area) ($\widehat{AEF}$) = **Alan** (Area) (ABCF)

⇒ **Alan** (Area) (ABCD) = ?

A) $16\sqrt{3}$ B) $24\sqrt{3}$ C) $30\sqrt{3}$

D) $36\sqrt{3}$ E) $48\sqrt{3}$

35.



ABCD **paralelkenar** (parallelogram)

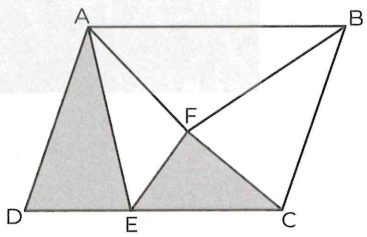
3|BF| = |FA|, |AE| = |ED|

Alan (Area) ($\widehat{AEF}$) = 12 br^2

⇒ **Alan** (Area) (ABCD) = ?

A) 22 B) 36 C) 48 D) 64 E) 72

36.



ABCD **paralelkenar** (parallelogram)

Alan (Area) ($\widehat{ADE}$) = **Alan** (Area) ($\widehat{EFC}$)

|DE| = 2 br, |EC| = 6 br

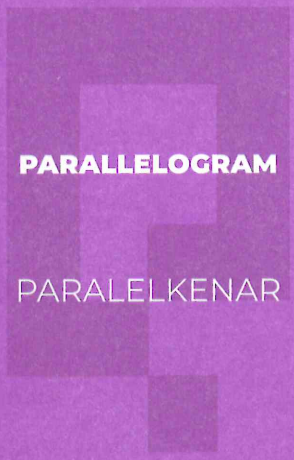
Alan (Area) (ABCD) = 48 br^2

⇒ **Alan** (Area) ($\widehat{CFB}$) = ?

A) 6 B) 8 C) 12 D) 16 E) 24

PUZA ACADEMY

IRANINOVIN



PARALLELOGRAM

PARALELKENAR

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
C	D	C	B	A	D	C	B	E	E	E	E

13	14	15	16	17	18	19	20	21	22	23	24
E	B	B	B	A	D	C	A	C	B	B	D

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
D	C	A	C	A	C	D	C	C	B	E	A

13	14	15	16	17	18	19	20	21	22	23	24
A	C	D	D	C	D	A	C	E	A	E	A

25	26	27	28	29	30	31	32	33	34	35	36
E	A	C	B	C	D	B	A	C	E	B	E

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
B	C	E	A	C	D	C	C	C	A	D	A

13	14	15	16	17	18	19	20	21	22	23	24
D	C	E	A	C	E	A	B	C	D	B	B

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
E	E	C	D	C	E	E	D	D	B	E	B

13	14	15	16	17	18	19	20	21	22	23	24
C	C	A	A	A	C	E	C	E	A	B	C

25	26	27	28	29	30	31	32	33	34	35	36
C	A	D	B	D	B	A	D	E	E	D	B

IRANINOVIN

NOTES:

NOTES:

@galata1010

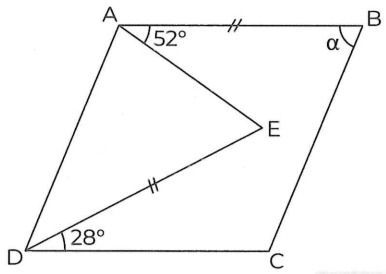
RHOMBUS - DELTOID

EŞKENAR DÖRTGEN - DELTOİD

CHAPTER | BÖLÜM 14

IRANINOVIN

1.



ABCD **eşkenar dörtgen** (rhombus)

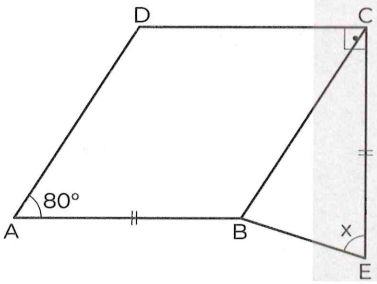
$|DE| = |AB|$, $m(\widehat{EDC}) = 28°$, $m(\widehat{BAE}) = 52°$

$m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 45 B) 48 C) 54 D) 56 E) 62

2.



ABCD **eşkenar dörtgen** (rhombus)

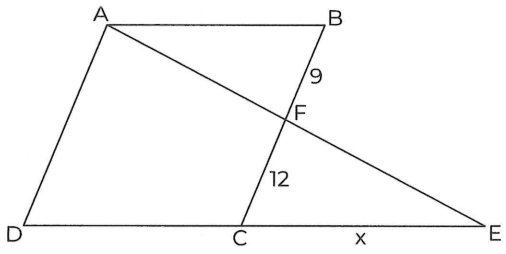
$[DC] \perp [EC]$, $|AB| = |CE|$

$m(\widehat{DAB}) = 80°$, $m(\widehat{BEC}) = x$

$\Rightarrow x = ?$

A) 72 B) 78 C) 80 D) 85 E) 86

3.



ABCD **eşkenar dörtgen** (rhombus)

D, C, E **doğrusal** (linear)

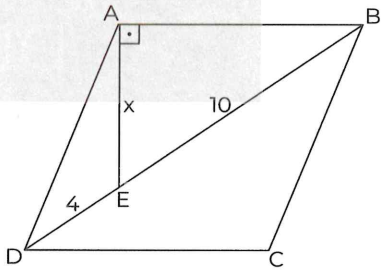
A, F, E **doğrusal** (linear)

$|BF| = 9$ br, $|FC| = 12$ br, $|CE| = x$

$\Rightarrow x = ?$

A) 21 B) 24 C) 27 D) 28 E) 30

4.



ABCD **eşkenar dörtgen** (rhombus)

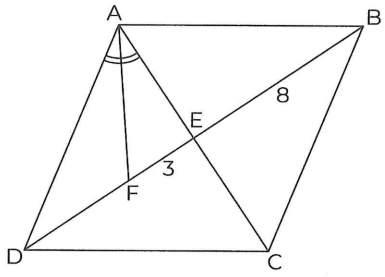
$[EA] \perp [AB]$, $|DE| = 4$ br, $|EB| = 10$ br, $|AE| = x$

$\Rightarrow x = ?$

A) $\sqrt{30}$ B) $4\sqrt{2}$ C) $4\sqrt{3}$ D) $5\sqrt{2}$ E) $6\sqrt{2}$

PUZA ACADEMY

5.



ABCD **eşkenar dörtgen** (rhombus)

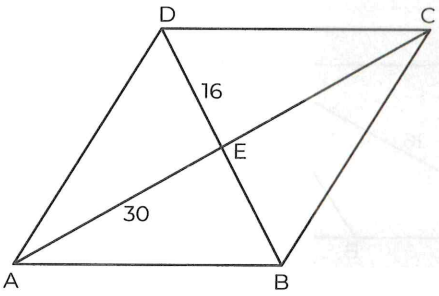
[AC], [BD] **köşegen** (diagonal)

$m(\widehat{DAF}) = m(\widehat{FAC})$, $|FE| = 3$ br, $|EB| = 8$ br

$\Rightarrow |AC| = ?$

A) 8 B) 10 C) 12 D) 14 E) 16

6.



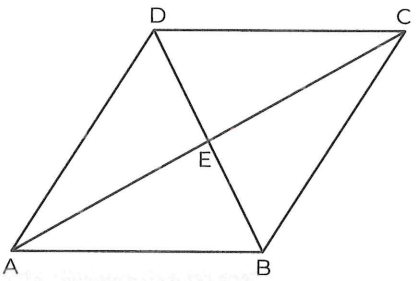
ABCD **eşkenar dörtgen** (rhombus)

$|DE| = 16$ br, $|AE| = 30$ br

$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) 160 B) 152 C) 144 D) 136 E) 128

7.



ABCD **eşkenar dörtgen** (rhombus)

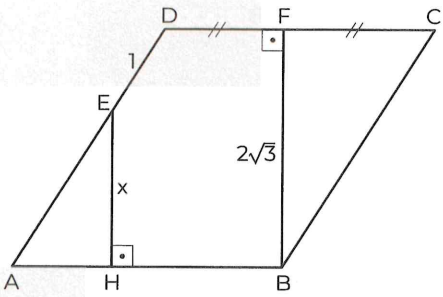
$|AC| = 8$ br, $|BD| = 4$ br

$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) $10\sqrt{5}$ B) $8\sqrt{5}$ C) $7\sqrt{5}$ D) $16\sqrt{5}$ E) $4\sqrt{5}$

PUZA ACADEMY

8.



ABCD **eşkenar dörtgen** (rhombus)

$[BF] \perp [DC]$, $[EH] \perp [AB]$, $|DF| = |FC|$

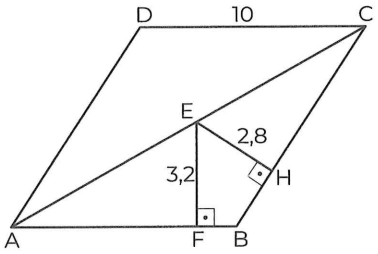
$|ED| = 1$ br, $|FB| = 2\sqrt{3}$ br, $|EH| = x$

$\Rightarrow x = ?$

A) $\frac{3\sqrt{3}}{2}$ B) $2\sqrt{3}$ C) $\frac{5\sqrt{3}}{2}$ D) $3\sqrt{3}$ E) $\frac{7\sqrt{3}}{2}$

IRANINOVIN

9.



ABCD **eşkenar dörtgen** (rhombus)

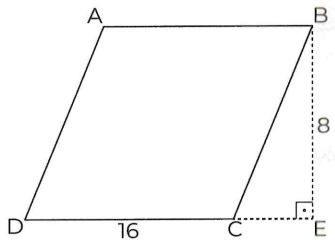
[EF] ⊥ [AB], [EH] ⊥ [BC]

|DC| = 10 br, |EF| = 3,2 br, |EH| = 2,8 br

⇒ |AC| = ?

A) $6\sqrt{10}$ B) $4\sqrt{22}$ C) $8\sqrt{5}$ D) $4\sqrt{17}$ E) $12\sqrt{2}$

10.



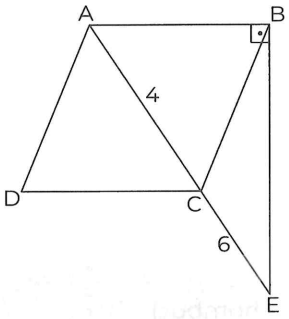
ABCD **eşkenar dörtgen** (rhombus)

[BE] ⊥ [DE], |BE| = 8 br, |DC| = 16 br

⇒ **Alan** (Area)(ABCD) = ?

A) 80 B) 88 C) 96 D) 100 E) 128

11.



ABCD **eşkenar dörtgen** (rhombus)

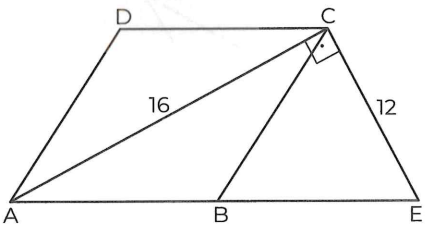
A, C, E **doğrusal** (linear)

[AB] ⊥ [BE], |AC| = 4 br, |CE| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 12 B) 16 C) 18 D) 24 E) 32

12.



ABCD **eşkenar dörtgen** (rhombus)

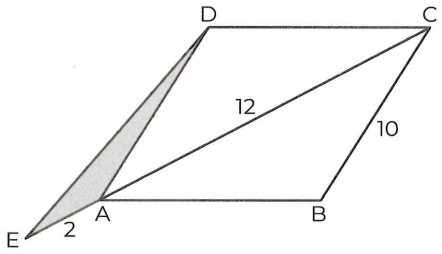
[AC] ⊥ [CE], |CE| = 12 br, |AC| = 16 br

⇒ **Alan** (Area)(ABCD) = ?

A) 112 B) 108 C) 104 D) 100 E) 96

PUZA ACADEMY

13.



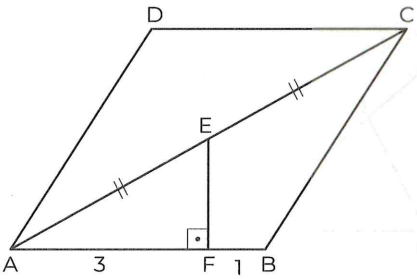
ABCD **eşkenar dörtgen** (rhombus)

$|CB| = 10$ br, $|EA| = 2$ br, $|AC| = 12$ br

⇒ **Alan** (Area)$(\widehat{EAD}) = ?$

A) 20 B) 16 C) 12 D) 10 E) 8

14.



ABCD **eşkenar dörtgen** (rhombus)

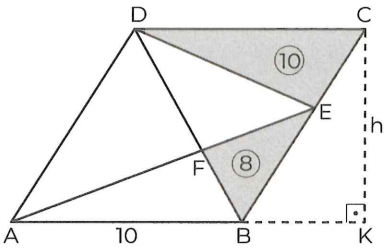
$[EF] \perp [AB]$, $|AE| = |EC|$, $|AF| = 3$ br, $|FB| = 1$ br

⇒ **Alan** (Area)(ABCD) = ?

A) $4\sqrt{3}$ B) $5\sqrt{3}$ C) $8\sqrt{3}$

D) $12\sqrt{3}$ E) $16\sqrt{3}$

15.



ABCD **eşkenar dörtgen** (rhombus)

$[AK] \perp [CK]$

Alan (Area)$(\widehat{BFE}) = 8$ br^2

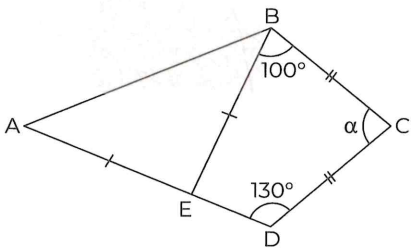
Alan (Area)$(\widehat{DEC}) = 10$ br^2

$|AB| = 10$ br, $|CK| = h$

⇒ $h = ?$

A) 6 B) 8 C) 10 D) 12 E) 16

16.



ABCD **deltoid**

$|BC| = |CD|$, $|AE| = |EB|$, $m(\widehat{EBC}) = 100°$

$m(\widehat{CDA}) = 130°$, $m(\widehat{BCD}) = \alpha$

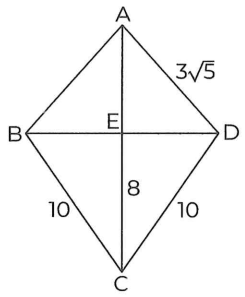
⇒ $\alpha = ?$

A) 50 B) 60 C) 65 D) 70 E) 80

PUZA ACADEMY

IRANINOVIN

17.



ABCD **deltoid**

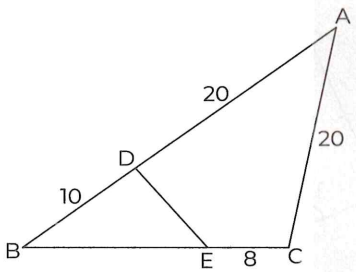
[AC], [BD] **köşegen** (diagonal)

$|BC| = |CD| = 10$ br, $|EC| = 8$ br, $|AD| = 3\sqrt{5}$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 54 B) 60 C) 66 D) 72 E) 78

18.



ABC **üçgen** (triangle)

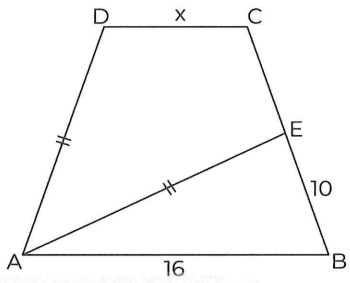
ACED **deltoid**

$|AC| = |AD| = 20$ br, $|EC| = 8$ br, $|BD| = 10$ br

⇒ **Çevre** (Perimeter) $(\widehat{BDE})$ = ?

A) 26 B) 30 C) 32 D) 34 E) 35

19.



ABCD **dörtgen** (quadrilateral)

AECD **deltoid**

[DC] // [AB], $|AE| = |AD|$

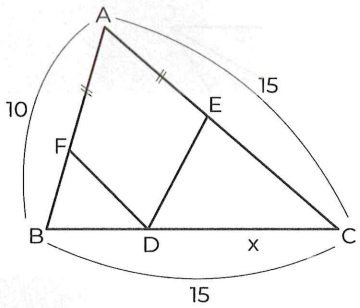
$|EB| = 10$ br, $|AB| = 16$ br, $|DC| = x$

⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 8

PUZA ACADEMY

20.



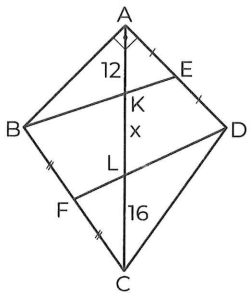
AFDE **deltoid**

$|AB| = 10$ br, $|AC| = 15$ br, $|BC| = 15$ br, $|DC| = x$

⇒ x = ?

A) 3 B) 4 C) 6 D) 9 E) 12

21.



@galata1010

ABCD **deltoid**

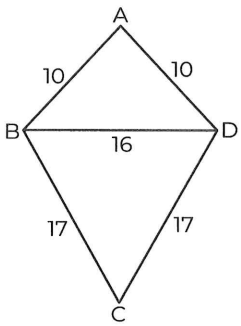
|AB| = |AD|, |AE| = |ED|, |BF| = |FC|,

|AK| = 12 br, |LC| = 16 br, |KL| = x

⇒ x = ?

A) 7 B) 10 C) 12 D) 14 E) 16

22.



ABCD **deltoid**

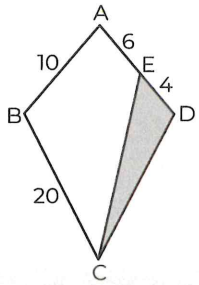
|AB| = |AD| = 10 br, |BD| = 16 br

|BC| = |CD| = 17 br

⇒ **Alan** (Area)(ABCD) = ?

A) 180 B) 172 C) 168 D) 160 E) 154

23.



ABCD **deltoid**

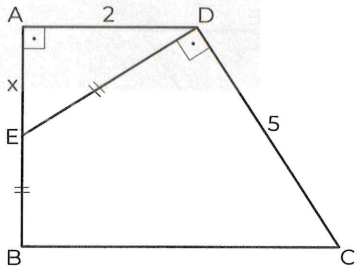
|AB| = 10 br, |AE| = 6 br, |ED| = 4 br, |BC| = 20 br

$\Rightarrow \frac{\textbf{Alan}\ (\text{Area})\ (ECD)}{\textbf{Alan}\ (\text{Area})\ (ABCD)} = ?$

A) $\frac{1}{25}$ B) $\frac{1}{10}$ C) $\frac{1}{8}$ D) $\frac{1}{5}$ E) $\frac{1}{2}$

PUZA ACADEMY

24.



EBCD **deltoid**

[AD] // [BC], [ED] ⊥ [CD], [DA] ⊥ [AB], |ED| = |EB|

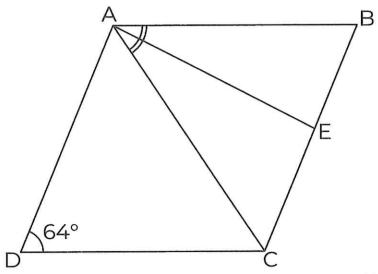
|AD| = 2 br, |DC| = 5 br, |AE| = x

⇒ x = ?

A) $\frac{3}{2}$ B) 2 C) $\frac{5}{2}$ D) 5 E) 10

IRANINOVIN

1.



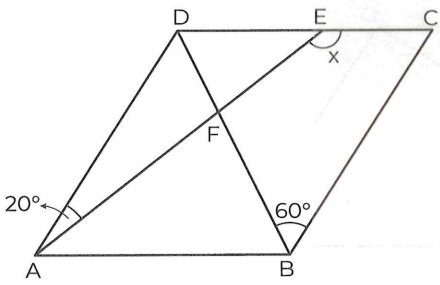
ABCD **eşkenar dörtgen** (rhombus)

$m(\widehat{BAE}) = m(\widehat{EAC})$, $m(\widehat{ADC}) = 64°$

$\Rightarrow m(\widehat{AEC}) = ?$

A) 90 B) 91 C) 93 D) 95 E) 97

2.



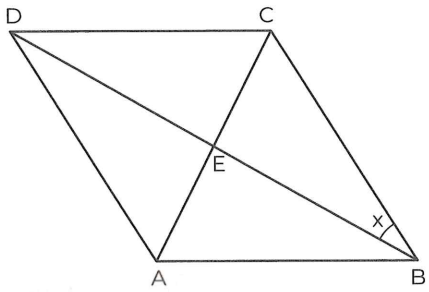
ABCD **eşkenar dörtgen** (rhombus)

$m(\widehat{DAE}) = 20°$, $m(\widehat{DBC}) = 60°$, $m(\widehat{AEC}) = x$

$\Rightarrow x = ?$

A) 150 B) 145 C) 140 D) 135 E) 130

3.



ABCD **eşkenar dörtgen** (rhombus)

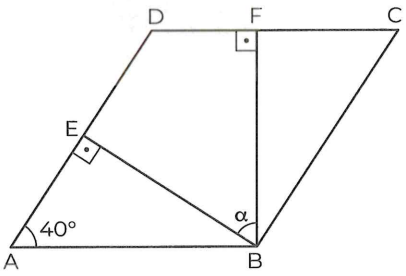
$4 \cdot m(\widehat{ABD}) = m(\widehat{ACB})$

$m(\widehat{DBC}) = x$

$\Rightarrow x = ?$

A) 72 B) 48 C) 36 D) 24 E) 18

4.



ABCD **eşkenar dörtgen** (rhombus)

$[BF] \perp [DC]$, $[BE] \perp [AD]$

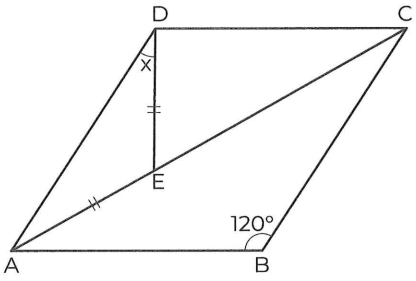
$m(\widehat{DAB}) = 40°$, $m(\widehat{EBF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 55 C) 50 D) 45 E) 40

PUZA ACADEMY

5.



ABCD **eşkenar dörtgen** (rhombus)

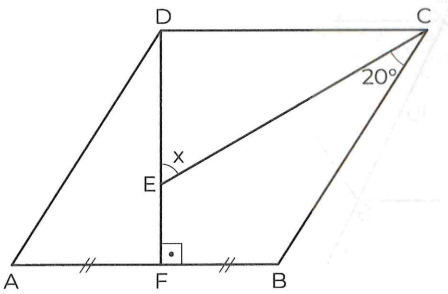
$|AE| = |ED|$

$m(\widehat{ABC}) = 120°$, $m(\widehat{ADE}) = x$

$\Rightarrow x = ?$

A) 26 B) 28 C) 30 D) 32 E) 34

6.



ABCD **eşkenar dörtgen** (rhombus)

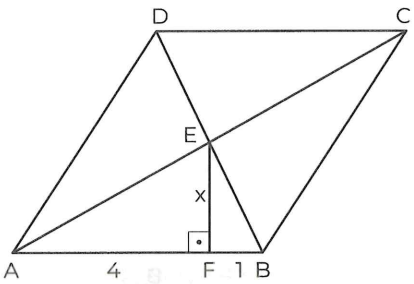
$[DF] \perp [AB]$, $|AF| = |FB|$,

$m(\widehat{ECB}) = 20°$, $m(\widehat{DEC}) = x$

$\Rightarrow x = ?$

A) 60 B) 55 C) 50 D) 45 E) 50

7.



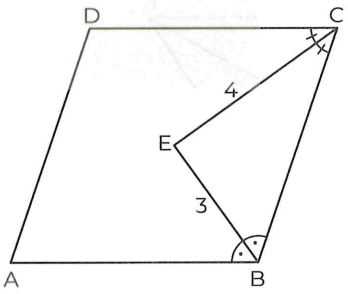
ABCD **eşkenar dörtgen** (rhombus)

$[EF] \perp [AB]$, $|AF| = 4$ br, $|FB| = 1$ br, $|EF| = x$

$\Rightarrow x = ?$

A) 2 B) $\sqrt{10}$ C) $2\sqrt{3}$ D) $\sqrt{6}$ E) 4

8.



ABCD **eşkenar dörtgen** (rhombus)

[CE], [EB] **açıortay** (bisector)

$|EB| = 3$ br, $|EC| = 4$ br

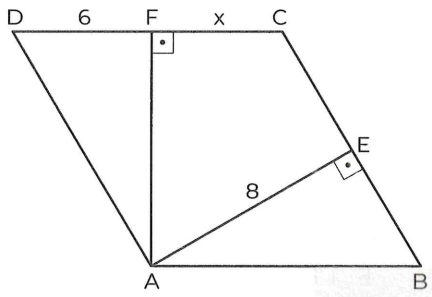
$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) 20 B) 18 C) 16 D) 14 E) 12

PUZA ACADEMY

IRANINOVIN

9.



ABCD **eşkenar dörtgen** (rhombus)

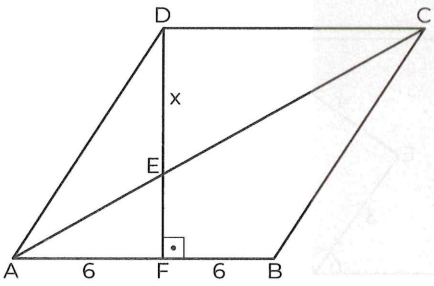
[AF] ⊥ [DC], [AE] ⊥ [BC]

|AE| = 8 br, |DF| = 6 br, |FC| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

10.



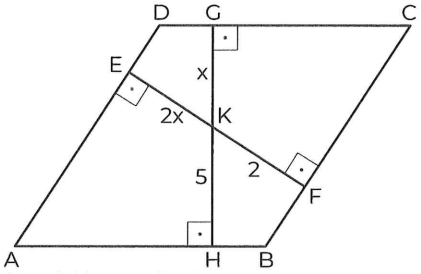
ABCD **eşkenar dörtgen** (rhombus)

[DF] ⊥ [AB], |AF| = |FB| = 6 br, |DE| = x

⇒ x = ?

A) 6 B) $4\sqrt{3}$ C) 8 D) $6\sqrt{3}$ E) 12

11.



ABCD **eşkenar dörtgen** (rhombus)

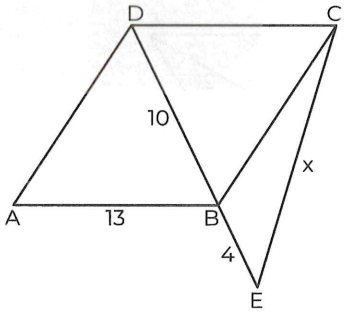
[GH] ⊥ [DC], [EF] ⊥ [AD]

|KF| = 2 br, |KH| = 5 br, |EK| = 2x, |GK| = x

⇒ x = ?

A) 2 B) 2,5 C) 3 D) 3,5 E) 4

12.



ABCD **eşkenar dörtgen** (rhombus)

|AB| = 13 br, |DB| = 10 br, |BE| = 4 br, |CE| = x

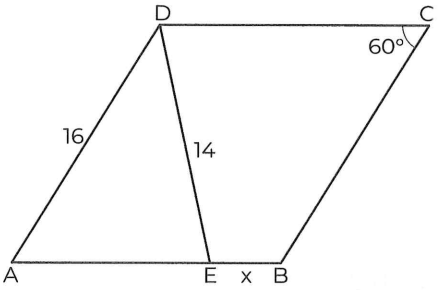
⇒ x = ?

A) 15 B) 18 C) 20 D) 22 E) 24

PUZA ACADEMY

IRANINOVIN

13.



ABCD **eşkenar dörtgen** (rhombus)

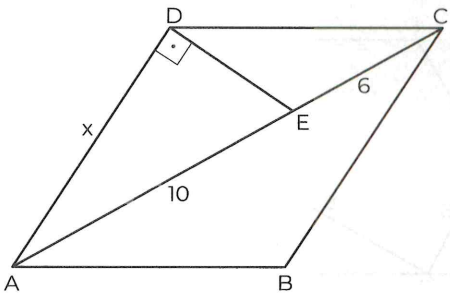
$m(\widehat{DCB}) = 60°$

$|AD| = 16$ br, $|DE| = 14$ br, $|EB| = x$

$\Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

14.



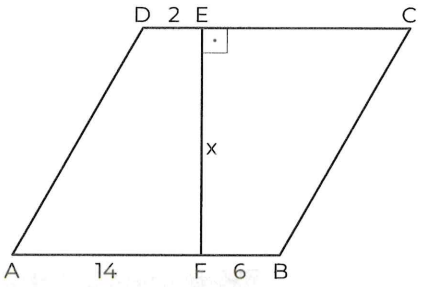
ABCD **eşkenar dörtgen** (rhombus)

$[AD] \perp [DE]$, $|EC| = 6$ br, $|AE| = 10$ br, $|AD| = x$

$\Rightarrow x = ?$

A) 8 B) $6\sqrt{2}$ C) $4\sqrt{5}$ D) $2\sqrt{21}$ E) $4\sqrt{6}$

15.



ABCD **eşkenar dörtgen** (rhombus)

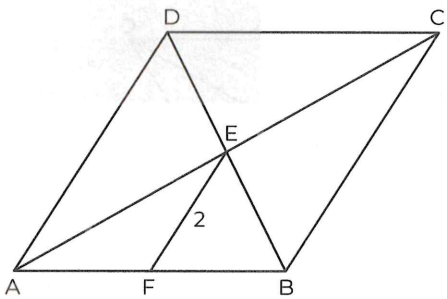
$[EF] \perp [DC]$

$|DE| = 2$ br, $|AF| = 14$ br, $|FB| = 6$ br, $|EF| = x$

$\Rightarrow x = ?$

A) $12\sqrt{2}$ B) 16 C) $4\sqrt{15}$ D) $6\sqrt{2}$ E) $10\sqrt{2}$

16.



ABCD **eşkenar dörtgen** (rhombus)

$[EF] \,//\, [AD]$, $|EF| = 2$ br

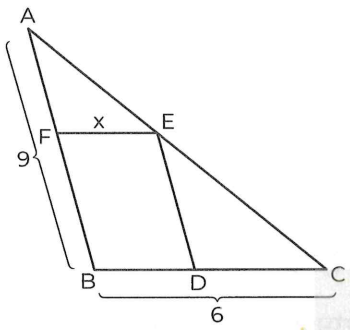
$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) 16 B) 18 C) 20 D) 24 E) 30

PUZA ACADEMY

IRANINOVIN

17.



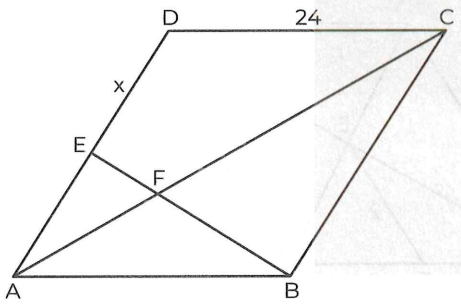
FEDB **eşkenar dörtgen** (rhombus)

|AB| = 9 br, |BC| = 6 br, |FE| = x

⇒ x = ?

A) 2,4 B) 2,6 C) 2,8 D) 3,4 E) 3,6

18.



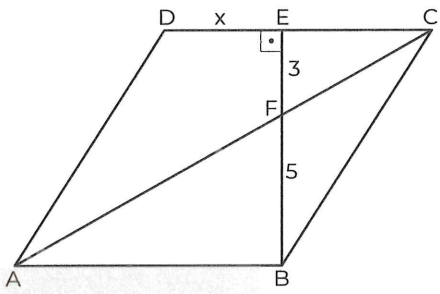
ABCD **eşkenar dörtgen** (rhombus)

|FC| = 4|AF|, |DC| = 24 br, |ED| = x

⇒ x = ?

A) 20 B) 18 C) 16 D) 12 E) 10

19.



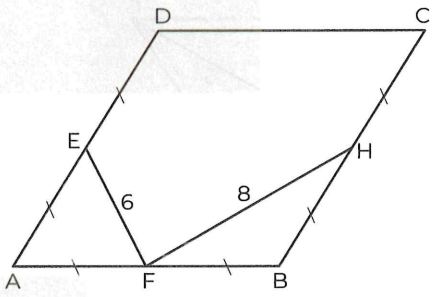
ABCD **eşkenar dörtgen** (rhombus)

[BE] ⊥ [DC], |EF| = 3 br, |FB| = 5 br, |DE| = x

⇒ x = ?

A) 2 B) 4 C) $2\sqrt{2}$ D) $2\sqrt{3}$ E) 6

20.



ABCD **eşkenar dörtgen** (rhombus)

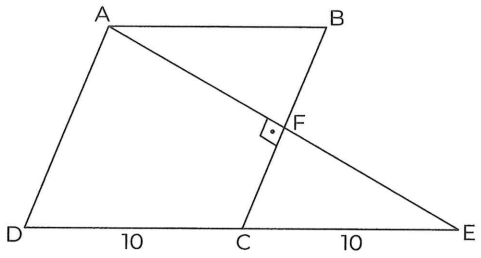
|EF| = 6 br, |FH| = 8 br

⇒ **Çevre** (Perimeter)(ABCD) = ?

A) 10 B) 20 C) 30 D) 40 E) 50

PUZA ACADEMY

21.



ABCD **eşkenar dörtgen** (rhombus)

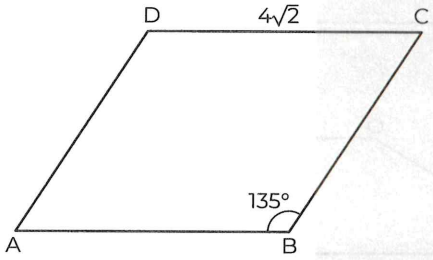
[AE] ⊥ [BC], |DC| = |CE| = 10 br

⇒ **Alan** (Area)(ABCD) = ?

A) $25\sqrt{3}$ B) $45\sqrt{3}$ C) $50\sqrt{3}$

D) $75\sqrt{3}$ E) $100\sqrt{3}$

22.



ABCD **eşkenar dörtgen** (rhombus)

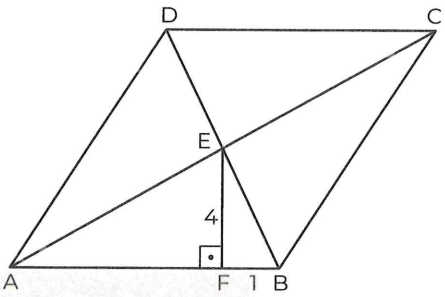
|DC| = $4\sqrt{2}$ br, $m(\widehat{ABC}) = 135°$

⇒ **Alan** (Area)(ABCD) = ?

A) $16\sqrt{2}$ B) $18\sqrt{2}$ C) $20\sqrt{2}$

D) $2\sqrt{2}$ E) $24\sqrt{2}$

23.



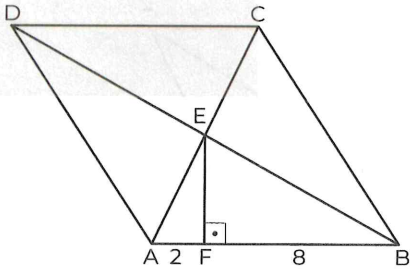
ABCD **eşkenar dörtgen** (rhombus)

[EF] ⊥ [AB], |EF| = 4 br, |FB| = 1 br

⇒ **Alan** (Area)(ABCD) = ?

A) 136 B) 124 C) 120 D) 72 E) 68

24.



ABCD **eşkenar dörtgen** (rhombus)

[EF] ⊥ [AB]

|AF| = 2 br, |FB| = 8 br

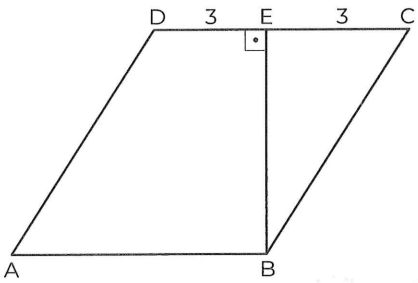
⇒ **Alan** (Area)(ABCD) = ?

A) 16 B) 32 C) 40 D) 54 E) 80

PUZA ACADEMY

IRANINOVIN

25.



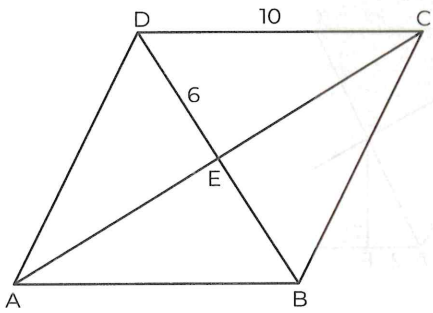
ABCD **eşkenar dörtgen** (rhombus)

[EB] ⊥ [DC], |DE| = |EC| = 3 br

⇒ **Alan** (Area)(ABCD) = ?

A) $9\sqrt{3}$ B) $12\sqrt{3}$ C) $15\sqrt{3}$ D) $16\sqrt{3}$ E) $18\sqrt{3}$

26.



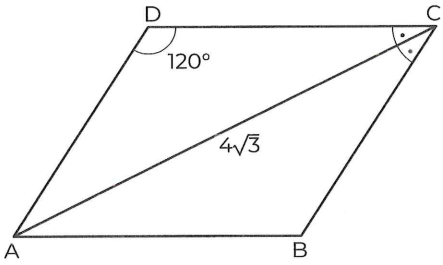
ABCD **eşkenar dörtgen** (rhombus)

|DE| = 6 br, |DC| = 10 br

⇒ **Alan** (Area)(ABCD) = ?

A) 24 B) 48 C) 54 D) 72 E) 96

27.



ABCD **eşkenar dörtgen** (rhombus)

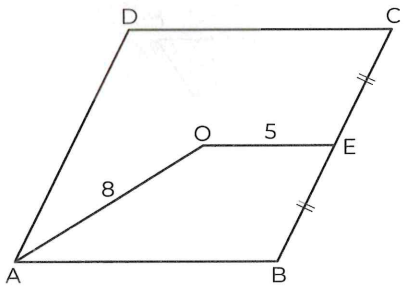
[AC] **açıortay** (bisector)

|AC| = $4\sqrt{3}$ br, $m(\widehat{ADC}) = 120°$

⇒ **Alan** (Area)(ABCD) = ?

A) $8\sqrt{3}$ B) $12\sqrt{3}$ C) $16\sqrt{3}$ D) $20\sqrt{3}$ E) $24\sqrt{3}$

28.



O ağırlık merkez (center of gravity)

ABCD **eşkenar dörtgen** (rhombus)

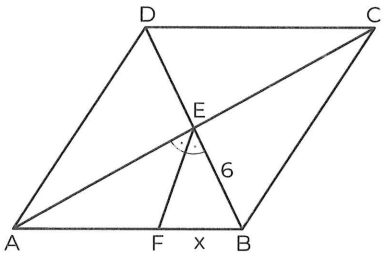
|BE| = |EC|, |AO| = 8 br, |OE| = 5 br

⇒ **Alan** (Area)(ABCD) = ?

A) 94 B) 96 C) 98 D) 100 E) 104

PUZA ACADEMY

29.



ABCD **eşkenar dörtgen** (rhombus)

[EF] **açıortay** (bisector)

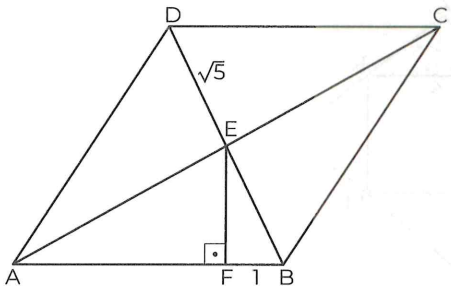
Alan (Area)(ABCD) = 96 br^2

|FB| = x

⇒ x = ?

A) 3 B) $\frac{24}{7}$ C) $\frac{26}{7}$ D) 4 E) $\frac{30}{7}$

30.



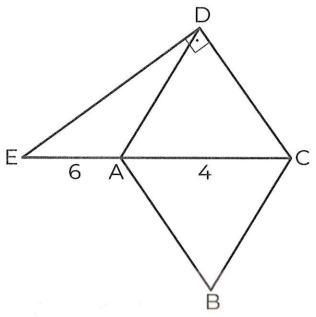
ABCD **eşkenar dörtgen** (rhombus)

[EF] ⊥ [AB], |FB| = 1 br, |DE| = $\sqrt{5}$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 14 B) 16 C) 20 D) 22 E) 24

31.



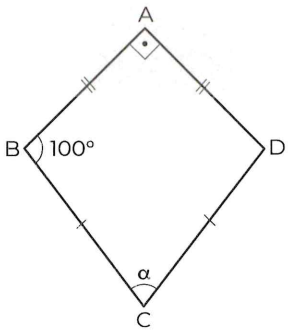
ABCD **eşkenar dörtgen** (rhombus)

[ED] ⊥ [DC], |EA| = 6 br, |AC| = 4 br

⇒ **Alan** (Area)(ABCD) = ?

A) 30 B) 24 C) 20 D) 18 E) 16

32.



ABCD **deltoid**

[AB] ⊥ [AD], $m(\widehat{ABC}) = 100°$

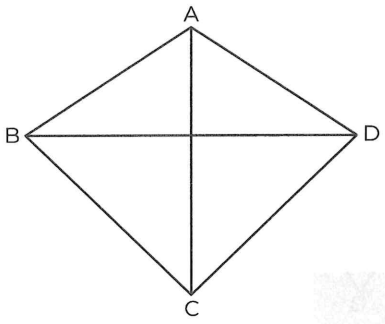
⇒ α = ?

A) 70 B) 60 C) 50 D) 40 E) 30

PUZA ACADEMY

IRANINOVIN

33.



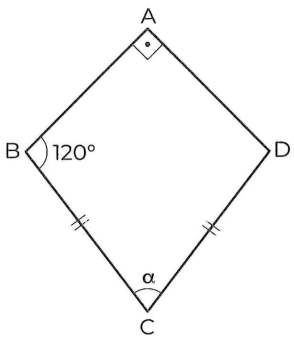
ABCD **deltoid**

|AC| = 12 br, |BD| = 16 br

⇒ **Alan** (Area)(ABCD) = ?

A) 90 B) 92 C) 94 D) 96 E) 108

34.



ABCD **deltoid**

|BC| = |CD|, [BA] ⊥ [AD],

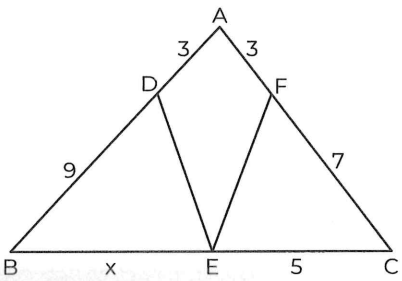
$m(\widehat{ABC}) = 120°$, $m(\widehat{BCD}) = \alpha$

⇒ α = ?

A) 45 B) 30 C) 25 D) 20 E) 15

@galata1010

35.



ADEF **deltoid**

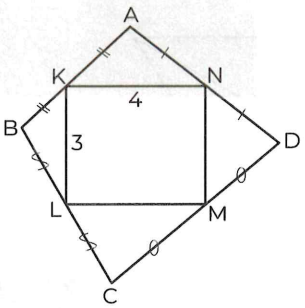
|AD| = |AF| = 3 br, |FC| = 7 br, |EC| = 5 br

|BD| = 9 br, |BE| = x

⇒ x = ?

A) 5 B) 6 C) 7 D) 8 E) 9

36.



ABCD **deltoid**, KLMN **dikdörtgen** (rectangle)

|BK| = |KA|, |AN| = |ND|, |DM| = |MC|, |CL| = |LB|

|KN| = 4 br, |KL| = 3 br

⇒ **Alan** (Area)(ABCD) = ?

A) 96 B) 74 C) 48 D) 24 E) 16

PUZA ACADEMY

NOTES:

RHOMBUS - DELTOID

EŞKENAR DÖRTGEN - DELTOİD

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
B	D	D	A	C	D	B	A	A	E	B	E

13	14	15	16	17	18	19	20	21	22	23	24
E	C	A	D	C	B	D	D	D	C	D	A

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
C	C	E	E	C	C	A	A	C	B	C	A

13	14	15	16	17	18	19	20	21	22	23	24
C	C	B	A	D	B	B	D	C	A	A	E

25	26	27	28	29	30	31	32	33	34	35	36
E	E	A	B	E	C	E	A	D	B	B	D

NOTES:

NOTES:

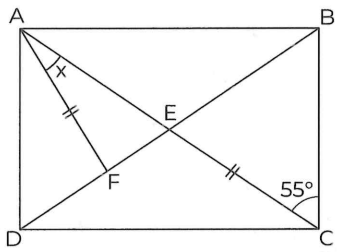
RECTANGLE

DİKDÖRTGEN

CHAPTER | BÖLÜM 15

IRANINOVIN

1.



ABCD **dikdörtgen** (rectangle)

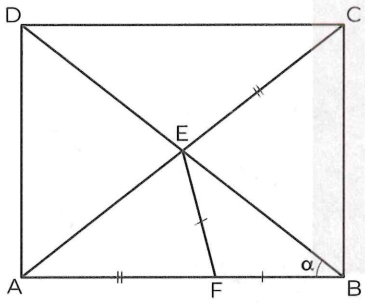
[AC], [BD] **köşegen** (diagonal)

$|AF| = |EC|$, $m(\widehat{BCA}) = 55°$, $m(\widehat{FAC}) = x$

$\Rightarrow x = ?$

A) 40 B) 35 C) 30 D) 25 E) 20

2.



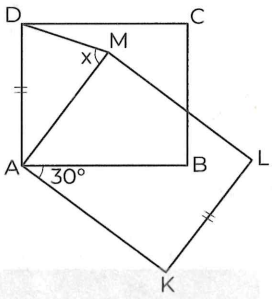
ABCD **dikdörtgen** (rectangle)

$|CE| = |AF|$, $|EF| = |FB|$, $m(\widehat{EBA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 72 B) 64 C) 52 D) 42 E) 36

3.



ABCD **dikdörtgen** (rectangle)

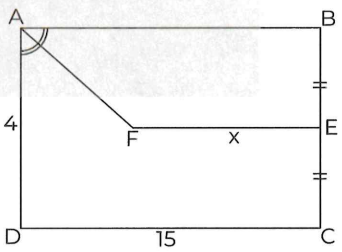
AKLM **dikdörtgen** (rectangle), $|DA| = |KL|$

$m(\widehat{BAK}) = 30°$, $m(\widehat{AMD}) = x$

$\Rightarrow x = ?$

A) 40 B) 50 C) 60 D) 70 E) 75

4.



ABCD **dikdörtgen** (rectangle)

$m(\widehat{DAF}) = m(\widehat{FAB})$, $|BE| = |EC|$, $[FE] \,//\, [AB]$

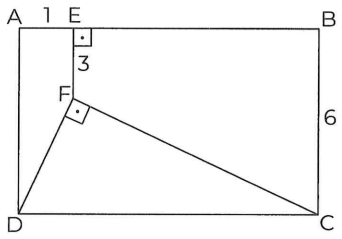
$|AD| = 4$ br, $|DC| = 15$ br, $|FE| = x$

$\Rightarrow x = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

PUZA ACADEMY

5.



ABCD **dikdörtgen** (rectangle)

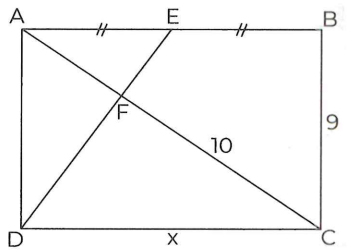
[FE] ⊥ [AB], [DF] ⊥ [FC]

|AE| = 1 br, |EF| = 3 br, |BC| = 6 br

⇒ **Çevre** (Perimeter)(ABCD) = ?

A) 28 B) 30 C) 32 D) 34 E) 36

6.



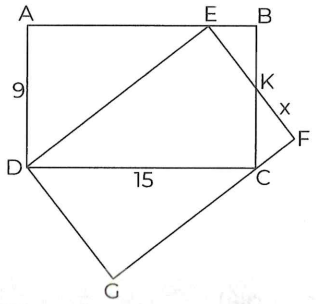
ABCD **dikdörtgen** (rectangle)

|AE| = |EB|, |BC| = 9 br, |FC| = 10 br, |DC| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 15 E) 18

7.



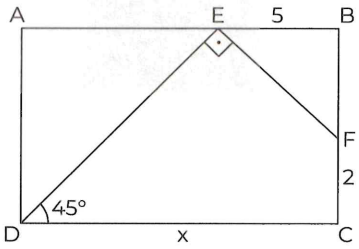
ABCD, EDGF **eş dikdörtgenler** (equal rectangles)

|AD| = 9 br, |DC| = 15 br, |KF| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) $\frac{9}{2}$ E) $\frac{12}{5}$

8.



ABCD **dikdörtgen** (rectangle)

[DE] ⊥ [EF], $m(\widehat{EDC}) = 45°$

|FC| = 2 br, |EB| = 5 br, |DC| = x

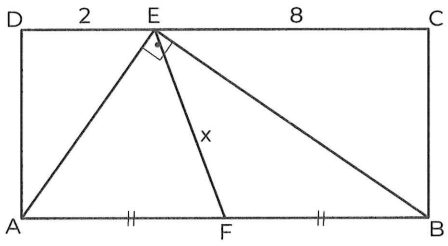
⇒ x = ?

A) 7 B) 8 C) 9 D) 10 E) 12

PUZA ACADEMY

IRANINOVIN

9.



ABCD **dikdörtgen** (rectangle)

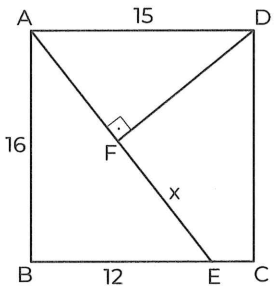
[AE] ⊥ [EB], |AF| = |FB|, |DE| = 2 br, |EC| = 8 br

|EF| = x

⇒ x = ?

A) 5 B) 6 C) 7 D) 8 E) 9

10.



ABCD **dikdörtgen** (rectangle)

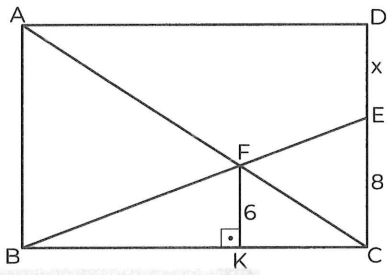
[DF] ⊥ [AE], |AD| = 15 br, |AB| = 16 br

|BE| = 12 br, |FE| = x

⇒ x = ?

A) 8 B) 10 C) 11 D) 12 E) 14

11.



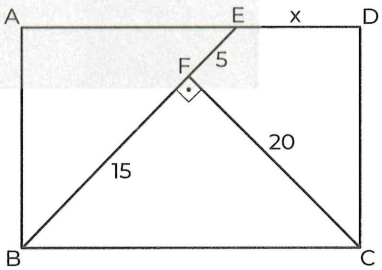
ABCD **dikdörtgen** (rectangle)

[KF] ⊥ [BC], |FK| = 6 br, |EC| = 8 br, |DE| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 16 E) 20

12.



ABCD **dikdörtgen** (rectangle)

[CF] ⊥ [BE], |BF| = 15 br, |FC| = 20 br, |FE| = 5 br

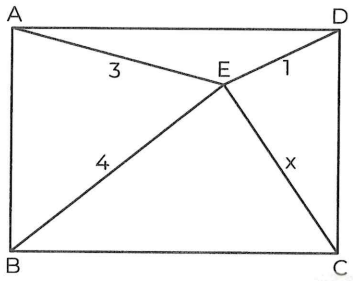
|ED| = x

⇒ x = ?

A) 15 B) 13 C) 12 D) 10 E) 5

PUZA ACADEMY

13.



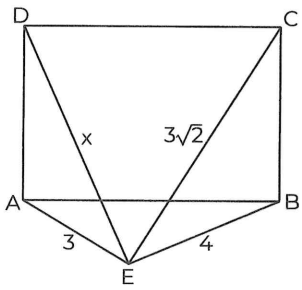
ABCD **dikdörtgen** (rectangle)

|AE| = 3 br, |BE| = 4 br, |ED| = 1 br, |EC| = x

⇒ x = ?

A) $\sqrt{6}$ B) $2\sqrt{2}$ C) 3 D) $\sqrt{10}$ E) $2\sqrt{3}$

14.



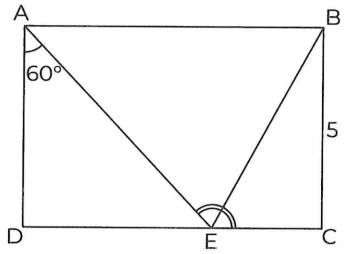
ABCD **dikdörtgen** (rectangle)

|AE| = 3 br, |EB| = 4 br, |EC| = $3\sqrt{2}$ br, |DE| = x

⇒ x = ?

A) 8 B) $6\sqrt{2}$ C) 9 D) $\sqrt{11}$ E) 10

15.



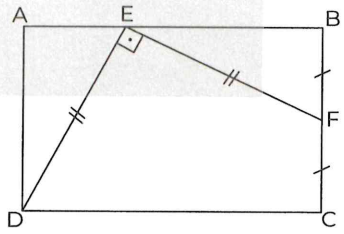
ABCD **dikdörtgen** (rectangle)

$m(\widehat{DAE}) = 60°$, $m(\widehat{AEB}) = m(\widehat{BEC})$, |BC| = 5 br

⇒ **Alan** (Area)(ABCD) = ?

A) 30 B) 40 C) 45 D) 50 E) 60

16.



ABCD **dikdörtgen** (rectangle)

Çevre (Perimeter)(ABCD) = 30 br

[DE] ⊥ [EF], |BF| = |FC|, |DE| = |EF|

⇒ **Alan** (Area)(ABCD) = ?

A) 54 B) 60 C) 66 D) 72 E) 78

PUZA ACADEMY

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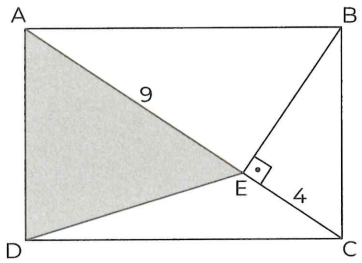
IRANINOVIN

17.



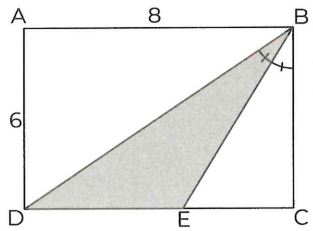
ABCD **dikdörtgen** (rectangle)

[BE] ⊥ [AC], |EC| = 4 br, |AE| = 9 br

⇒ **Alan** (Area) $(\widehat{ADE})$ = ?

A) 24 B) 27 C) 30 D) 36 E) 42

18.



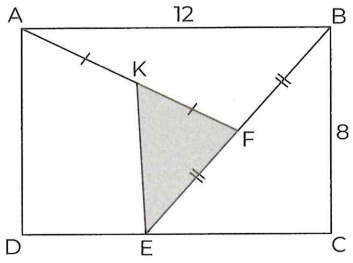
ABCD **dikdörtgen** (rectangle)

$m(\widehat{DBE}) = m(\widehat{EBC})$, |AD| = 6 br, |AB| = 8 br

⇒ **Alan** (Area) $(\widehat{BDE})$ = ?

A) 9 B) 10 C) 12 D) 14 E) 15

19.



ABCD **dikdörtgen** (rectangle)

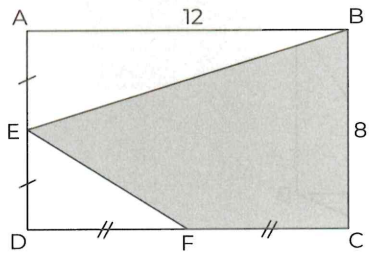
|AK| = |KF|, |BF| = |FE|, |BC| = 8 br, |AB| = 12 br

⇒ **Alan** (Area) $(\widehat{EKF})$ = ?

A) 8 B) 9 C) 10 D) 12 E) 16

PUZA ACADEMY

20.



ABCD **dikdörtgen** (rectangle)

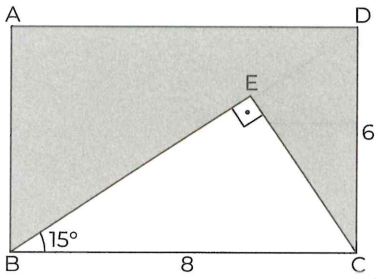
|AE| = |ED|, |DF| = |FC|, |BC| = 8 br, |AB| = 12 br

⇒**Taralı alan kaç br² dir?**

What is the value of shaded area?

A) 50 B) 54 C) 56 D) 58 E) 60

21.



ABCD **dikdörtgen** (rectangle)

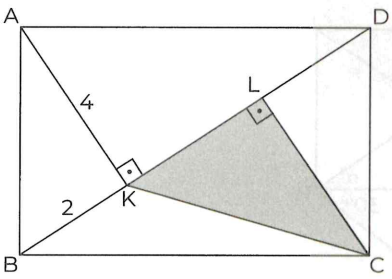
[BE] ⊥ [EC], $m(\widehat{EBC}) = 15°$

|DC| = 6 br, |BC| = 8 br

⇒ **Alan** (Area)(ABECD) = ?

A) 48 B) 40 C) 36 D) 32 E) 30

22.



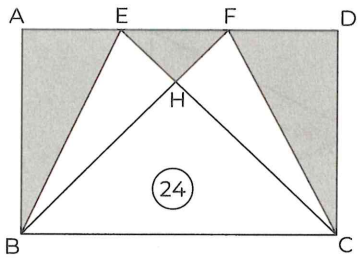
ABCD **dikdörtgen** (rectangle)

[AK] ⊥ [BD], [CL] ⊥ [BD], |AK| = 4 br, |BK| = 2 br

⇒ **Alan** (Area)(KCL) = ?

A) 24 B) 20 C) 16 D) 14 E) 12

23.



ABCD **dikdörtgen** (rectangle)

Alan (Area)($\widehat{BHC}$) = 24 br^2

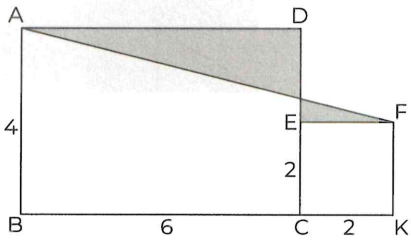
⇒ **Taralı alanlar toplamı kaç br^2 dir?**

What is the sum of the shaded area?

A) 24 B) 20 C) 18 D) 16 E) 12

PUZA ACADEMY

24.



ABCD **dikdörtgen** (rectangle)

ECKF **kare** (square)

|AB| = 4 br, |BC| = 6 br, |EC| = |CK| = 2 br

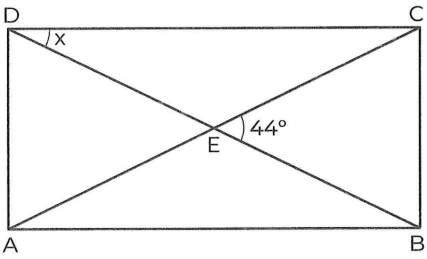
⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded area?

A) 10 B) 8 C) 6 D) 5 E) 2

IRANINOVIN

1.



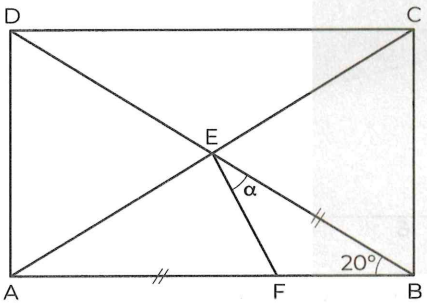
ABCD **dikdörtgen** (rectangle)

$m(\widehat{CEB}) = 44°$, $m(\widehat{CDB}) = x$

$\Rightarrow x = ?$

A) 11 B) 22 C) 33 D) 44 E) 55

2.



ABCD **dikdörtgen** (rectangle)

$|EB| = |AF|$, $m(\widehat{EBA}) = 20°$, $m(\widehat{FEB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 50 C) 45 D) 30 E) 25

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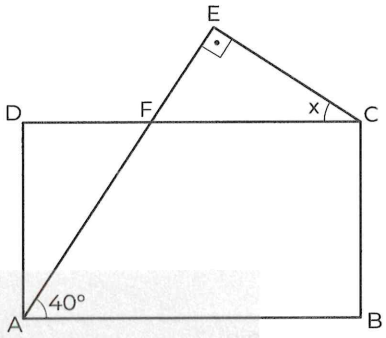
PUZA ACADEMY

3.



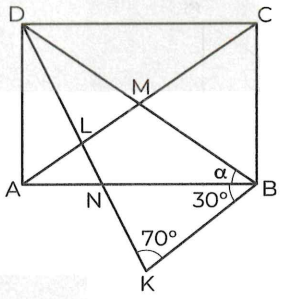
ABCD **dikdörtgen** (rectangle)

$[AE] \perp [EC]$, $m(\widehat{EAB}) = 40°$, $m(\widehat{DCE}) = x$

$\Rightarrow x = ?$

A) 20 B) 40 C) 50 D) 60 E) 70

4.



ABCD **dikdörtgen** (rectangle)

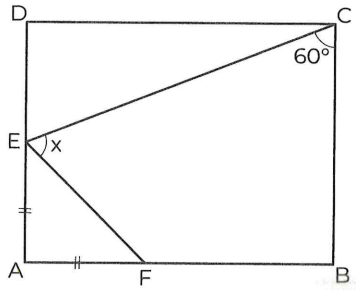
$|DK| = |AC|$, $m(\widehat{DKB}) = 70°$, $m(\widehat{ABK}) = 30°$

$m(\widehat{DBA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 50 C) 40 D) 30 E) 20

5.



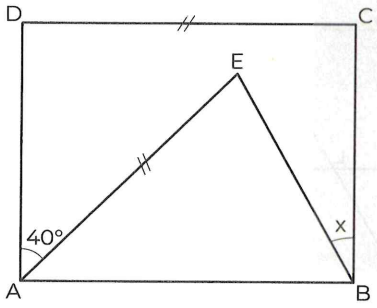
ABCD **dikdörtgen** (rectangle)

$|EA| = |AF|$, $m(\widehat{ECB}) = 60°$, $m(\widehat{CEF}) = x$

$\Rightarrow x = ?$

A) 50 B) 55 C) 60 D) 65 E) 75

6.



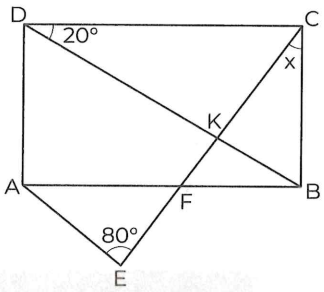
ABCD **dikdörtgen** (rectangle)

$|DC| = |AE|$, $m(\widehat{DAE}) = 40°$, $m(\widehat{EBC}) = x$

$\Rightarrow x = ?$

A) 15 B) 20 C) 25 D) 30 E) 35

7.



ABCD **dikdörtgen** (rectangle)

$|DB| = |CE|$, $m(\widehat{CDB}) = 20°$, $m(\widehat{AEC}) = 80°$

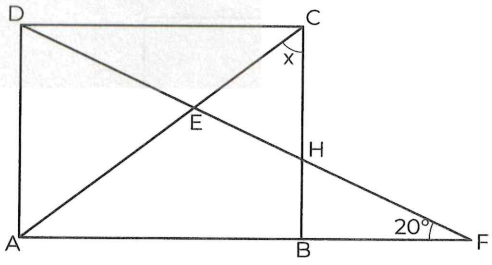
$m(\widehat{ECB}) = x$

$\Rightarrow x = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

8.



ABCD **dikdörtgen** (rectangle)

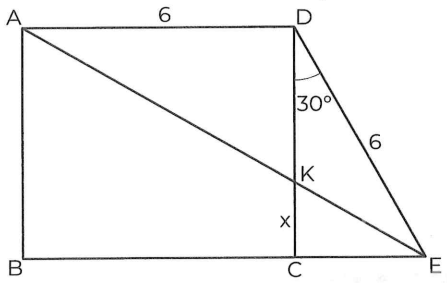
$m(\widehat{DFA}) = 20°$, $|AC| = |BF|$, $m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 20 B) 40 C) 45 D) 50 E) 70

IRANINOVIN

9.



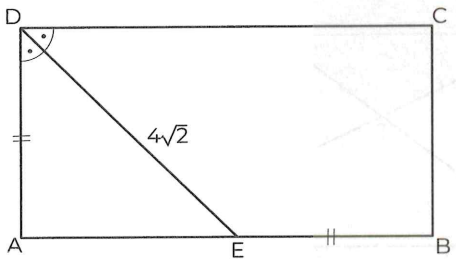
ABCD **dikdörtgen** (rectangle)

$m(\widehat{CDE}) = 30°$, $|AD| = |DE| = 6$ br, $|KC| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) $\sqrt{3}$ C) $2\sqrt{2}$ D) $2\sqrt{3}$ E) 6

10.



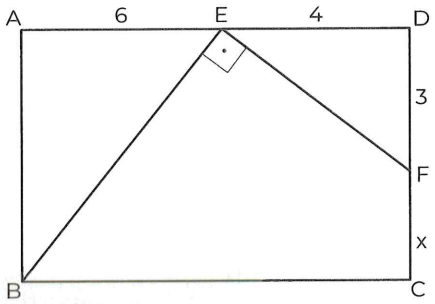
ABCD **dikdörtgen** (rectangle)

$m(\widehat{ADE}) = m(\widehat{EDC})$, $|DE| = 4\sqrt{2}$ br, $|DA| = |EB|$

$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) 12 B) 18 C) 24 D) 32 E) 48

11.



ABCD **dikdörtgen** (rectangle)

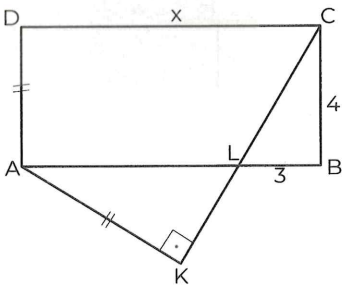
$[BE] \perp [EF]$, $|AE| = 6$ br, $|ED| = 4$ br, $|DF| = 3$ br

$|FC| = x$

$\Rightarrow x = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

12.



ABCD **dikdörtgen** (rectangle)

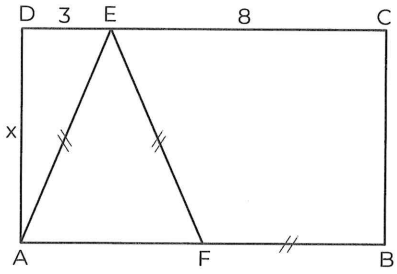
$|AD| = |AK|$, $[CK] \perp [AK]$, $|CB| = 4$ br, $|LB| = 3$ br

$|DC| = x$

$\Rightarrow x = ?$

A) 12 B) 10 C) 8 D) 6 E) 4

PUZA ACADEMY

13. 

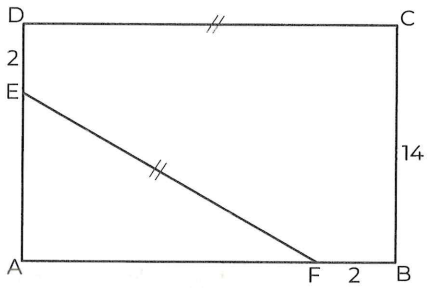
ABCD **dikdörtgen** (rectangle)

|AE| = |EF| = |FB|, |DE| = 3 br, |EC| = 8 br

|DA| = x

⇒ x = ?

A) 2 B) 4 C) 5 D) 6 E) 8

15. 

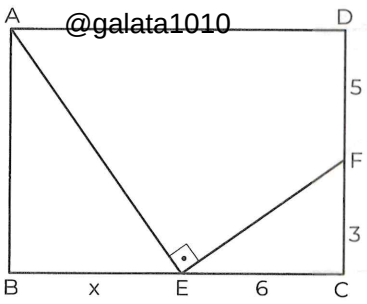
ABCD **dikdörtgen** (rectangle)

|DC| = |EF|, |DE| = |FB| = 2 br, |CB| = 14 br

⇒ |DC| = ?

A) 32 B) 34 C) 35 D) 36 E) 37

PUZA ACADEMY

14. 

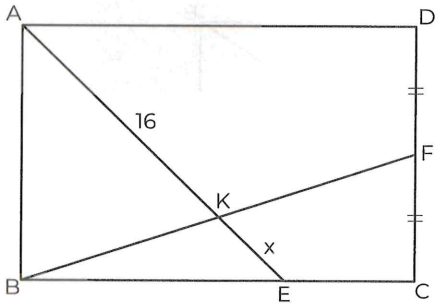
ABCD **dikdörtgen** (rectangle)

[AE] ⊥ [EF], |DF| = 5 br, |FC| = 3 br, |EC| = 6 br

|BE| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 12 E) 16

16. 

ABCD **dikdörtgen** (rectangle)

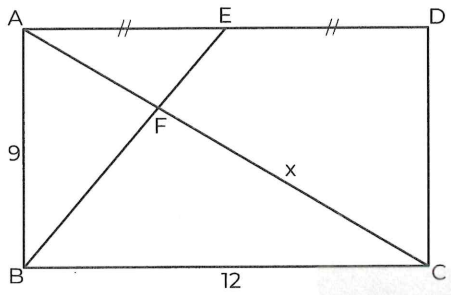
|BE| = 3|EC|, |DF| = |FC|, |AK| = 16 br, |KE| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

IRANINOVIN

17.



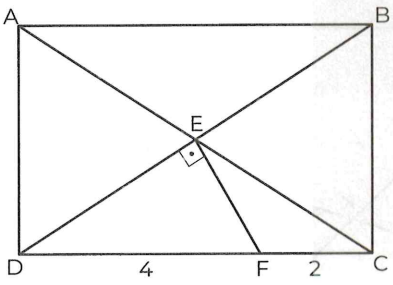
ABCD **dikdörtgen** (rectangle)

|AE| = |ED|, |AB| = 9 br, |BC| = 12 br, |FC| = x

⇒ x = ?

A) 15 B) 12 C) 10 D) 9 E) 5

18.



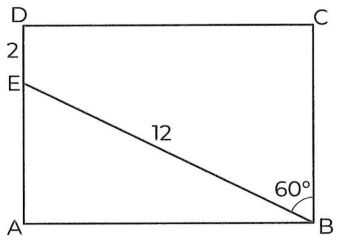
ABCD **dikdörtgen** (rectangle)

[AC] ∩ [BD] = {E}

[DE] ⊥ [EF], |DF| = 4 br, |FC| = 2 br ⇒ |AC| = ?

A) $2\sqrt{3}$ B) 3 C) $3\sqrt{3}$ D) $4\sqrt{3}$ E) 4

19.



ABCD **dikdörtgen** (rectangle)

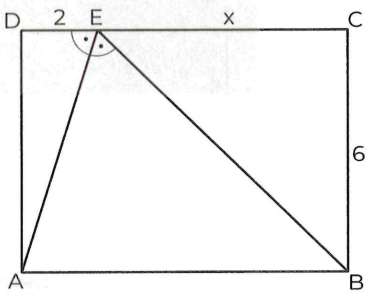
$m(\widehat{EBC}) = 60°$, |EB| = 12 br, |DE| = 2 br

⇒ **Çevre** (Perimeter)(ABCD) = ?

A) $12\sqrt{3} + 16$ B) $16\sqrt{3} + 12$ C) $12\sqrt{3} + 24$

D) $16\sqrt{3} + 32$ E) $48\sqrt{3}$

20.



ABCD **dikdörtgen** (rectangle)

$m(\widehat{DEA}) = m(\widehat{AEB})$

|DE| = 2 br, |CB| = 6 br, |EC| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 7 E) 8

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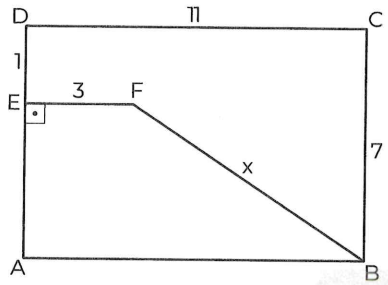
PUZA ACADEMY

21.



ABCD **dikdörtgen** (rectangle)

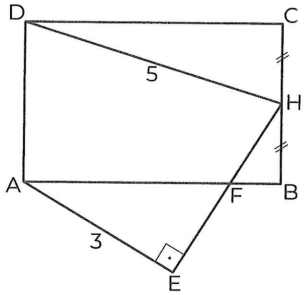
$[FE] \perp [DA]$, $|FE| = 3$ br, $|DE| = 1$ br, $|DC| = 11$ br

$|CB| = 7$ br, $|FB| = x$

$\Rightarrow x = ?$

A) 4 B) 6 C) 8 D) 10 E) 12

22.



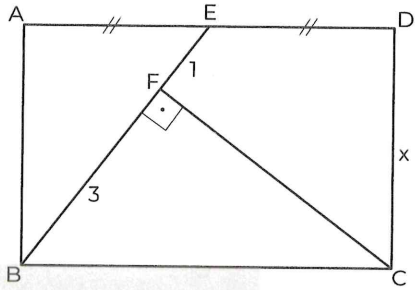
ABCD **dikdörtgen** (rectangle)

$|CH| = |HB|$, $[AE] \perp [EH]$, $|DH| = 5$ br, $|AE| = 3$ br

$\Rightarrow |EH| = ?$

A) 4 B) $\sqrt{7}$ C) $2\sqrt{2}$ D) $2\sqrt{3}$ E) 5

23.



ABCD **dikdörtgen** (rectangle)

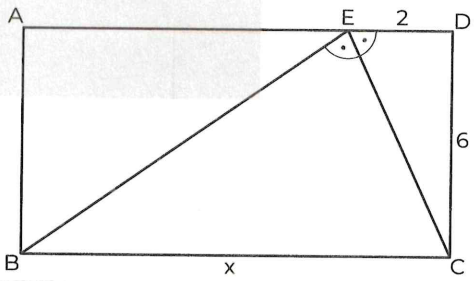
$|AE| = |ED|$, $[CF] \perp [BE]$, $|EF| = 1$ br, $|BF| = 3$ br

$|DC| = x$

$\Rightarrow x = ?$

A) 4 B) $\sqrt{10}$ C) 3 D) $2\sqrt{2}$ E) $\sqrt{5}$

24.



ABCD **dikdörtgen** (rectangle)

$m(\widehat{BEC}) = m(\widehat{CED})$, $|ED| = 2$ br, $|DC| = 6$ br

$|BC| = x$

$\Rightarrow x = ?$

A) 15 B) 12 C) 10 D) 8 E) 6

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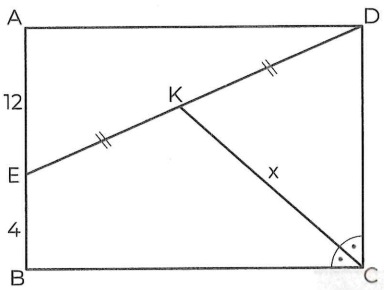
25.



ABCD **dikdörtgen** (rectangle)

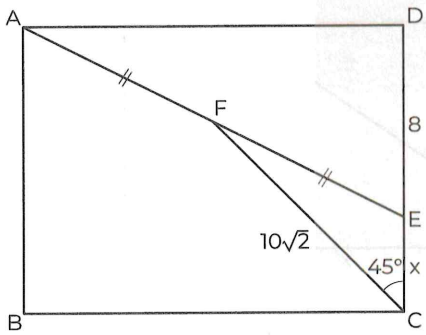
$|EK| = |KD|$, $m(\widehat{DCK}) = m(\widehat{KCB})$

$|AE| = 12$ br, $|EB| = 4$ br, $|KC| = x$

$\Rightarrow x = ?$

A) 5 B) $5\sqrt{2}$ C) 10 D) $10\sqrt{2}$ E) 20

26.



ABCD **dikdörtgen** (rectangle)

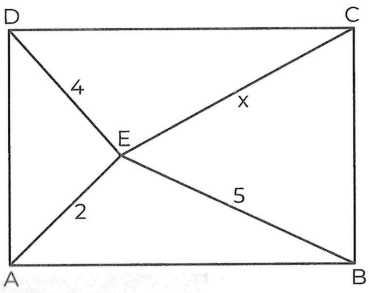
$m(\widehat{DCF}) = 45°$, $|AF| = |FE|$

$|DE| = 8$ br, $|FC| = 10\sqrt{2}$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 6 E) 8

27.



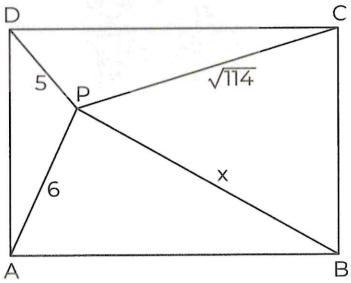
ABCD **dikdörtgen** (rectangle)

$|EA| = 2$ br, $|EB| = 5$ br, $|DE| = 4$ br, $|EC| = x$

$\Rightarrow x = ?$

A) $3\sqrt{2}$ B) 4 C) $\sqrt{15}$ D) $2\sqrt{3}$ E) $\sqrt{37}$

28.



ABCD **dikdörtgen** (rectangle)

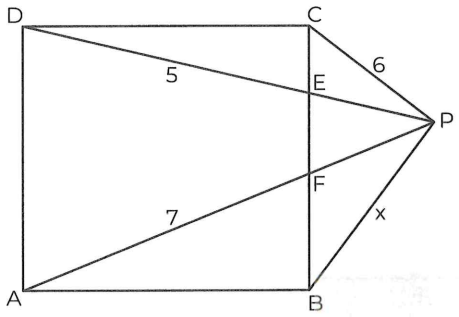
$|DP| = 5$ br, $|PA| = 6$ br, $|PC| = \sqrt{114}$ br, $|PB| = x$

$\Rightarrow x = ?$

A) 10 B) $10\sqrt{3}$ C) $5\sqrt{5}$ D) $4\sqrt{10}$ E) 15

PUZA ACADEMY

29.



ABCD **dikdörtgen** (rectangle)

|CP| = 6 br, |DP| = 5 br, |AP| = 7 br, |PB| = x

⇒ x = ?

A) 4 B) 8 C) $8\sqrt{2}$ D) $6\sqrt{2}$ E) $2\sqrt{15}$

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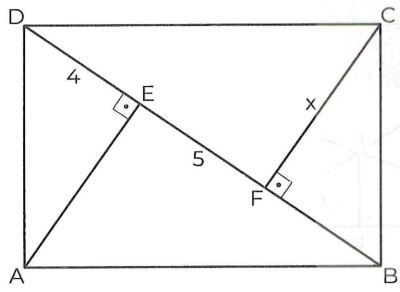
30.



ABCD **dikdörtgen** (rectangle)

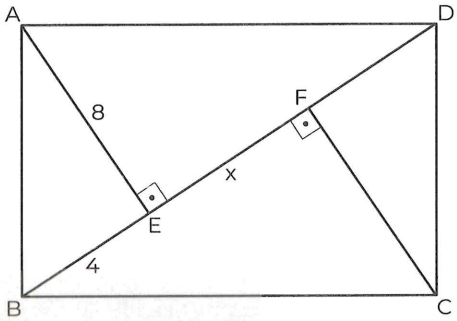
[AE] ⊥ [DB], [CF] ⊥ [DB], |DE| = 4 br, |EF| = 5 br

|CF| = x

⇒ x = ?

A) $4\sqrt{2}$ B) 6 C) $2\sqrt{10}$ D) $4\sqrt{3}$ E) $6\sqrt{2}$

31.



ABCD **dikdörtgen** (rectangle)

[AE] ⊥ [BD], [CF] ⊥ [BD]

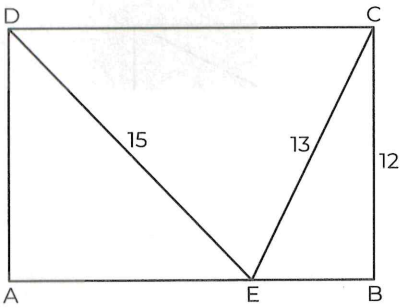
|AE| = 8 br, |BE| = 4 br, |EF| = x

⇒ x = ?

A) 4 B) 6 C) 8 D) 12 E) 16

PUZA ACADEMY

32.



ABCD **dikdörtgen** (rectangle)

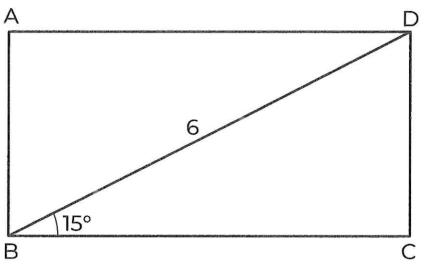
|CB| = 12 br, |CE| = 13 br, |DE| = 15 br

⇒ **Alan** (Area)(ABCD) = ?

A) 60 B) 120 C) 140 D) 150 E) 168

IRANINOVIN

33.



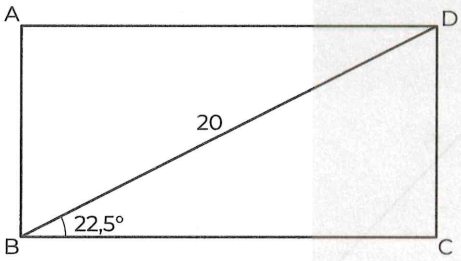
ABCD **dikdörtgen** (rectangle)

$m(\widehat{DBC}) = 15°$, $|BD| = 6$ br

⇒ **Alan** (Area)(ABCD) = ?

A) 9 B) 10 C) 12 D) 15 E) 18

34.



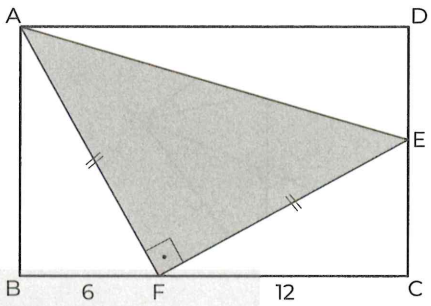
ABCD **dikdörtgen** (rectangle)

$m(\widehat{DBC}) = 22{,}5°$, $|BD| = 20$ br

⇒ **Alan** (Area)(ABCD) = ?

A) $100\sqrt{2}$ B) 100 C) $50\sqrt{2}$ D) 50 E) $25\sqrt{2}$

35.



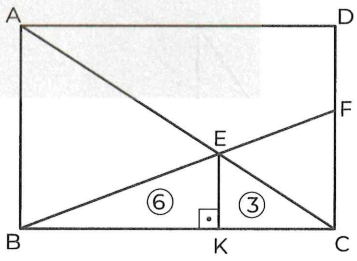
ABCD **dikdörtgen** (rectangle)

[AF] ⊥ [FE], $|AF| = |FE|$, $|BF| = 6$ br, $|FC| = 12$ br

⇒ **Alan** (Area)(AFE) = ?

A) 45 B) 50 C) 60 D) 90 E) 120

36.



ABCD **dikdörtgen** (rectangle)

[EK] ⊥ [BC]

Alan (Area) $(\widehat{BEK}) = 6$ br^2

Alan (Area) $(\widehat{EKC}) = 3$ br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 54 B) 50 C) 48 D) 40 E) 32

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NOTES:

RECTANGLE

DİKDÖRTGEN

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
A	E	E	E	C	C	D	E	A	C	D	B

13	14	15	16	17	18	19	20	21	22	23	24
B	D	D	A	B	E	D	E	B	E	A	D

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
B	A	C	C	E	C	D	D	B	C	C	C

13	14	15	16	17	18	19	20	21	22	23	24
B	A	E	E	C	D	A	E	D	A	B	C

25	26	27	28	29	30	31	32	33	34	35	36
D	D	E	C	E	B	D	E	A	A	D	A

NOTES:

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NOTES:

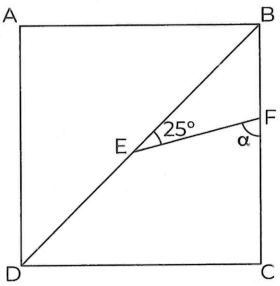
SQUARE

KARE

CHAPTER | BÖLÜM 16

IRANINOVIN

1.



ABCD **kare** (square)

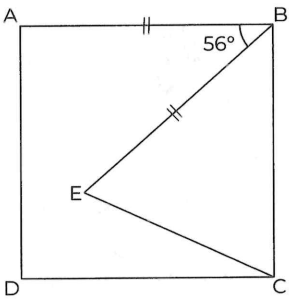
[BD] **köşegen** (diagonal)

$m(\widehat{BEF}) = 25°$, $m(\widehat{CFE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 45 B) 55 C) 65 D) 70 E) 75

2.



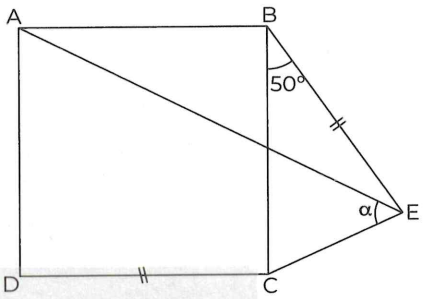
ABCD **kare** (square)

$|AB| = |BE|$, $m(\widehat{ABE}) = 56°$

$\Rightarrow m(\widehat{DCE}) = ?$

A) 17 B) 20 C) 23 D) 26 E) 29

3.



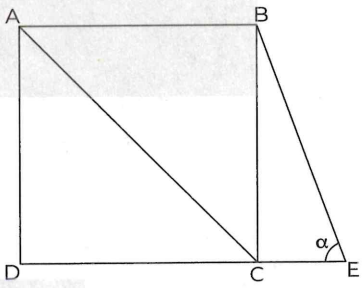
ABCD **kare** (square)

$|BE| = |DC|$, $m(\widehat{CBE}) = 50°$, $m(\widehat{AEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 25 C) 30 D) 40 E) 45

4.



ABCD **kare** (square)

$|DE| = |AC|$, $m(\widehat{DEB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 37,5 B) 45 C) 52,5 D) 60 E) 67,5

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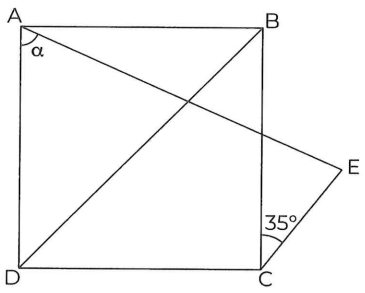
5.



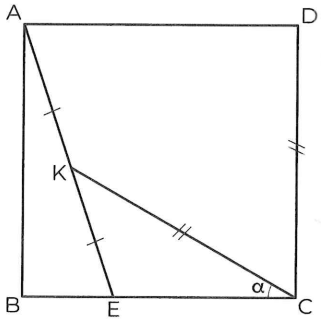
ABCD **kare** (square)

$|BD| = |AE|$, $m(\widehat{BCE}) = 35°$, $m(\widehat{EAD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 55 C) 60 D) 65 E) 70

6.



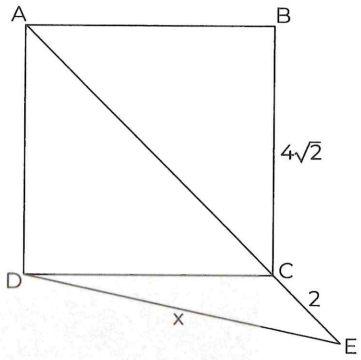
ABCD **kare** (square)

$|AK| = |KE|$, $|DC| = |KC|$, $m(\widehat{BCK}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 45 C) 60 D) 75 E) 90

7.



ABCD **kare** (square)

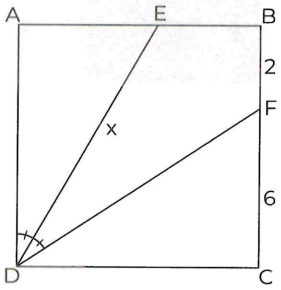
A, C, E **doğrusal** (linear)

$|BC| = 4\sqrt{2}$ br, $|CE| = 2$ br, $|DE| = x$

$\Rightarrow x = ?$

A) 6 B) $4\sqrt{3}$ C) 7 D) $5\sqrt{2}$ E) $2\sqrt{13}$

8.



ABCD **kare** (square)

$m(\widehat{ADE}) = m(\widehat{EDF})$

$|BF| = 2$ br, $|FC| = 6$ br, $|DE| = x$

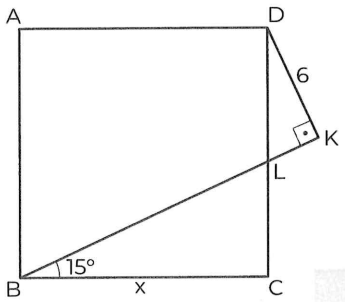
$\Rightarrow x = ?$

A) $6\sqrt{2}$ B) $5\sqrt{3}$ C) $4\sqrt{5}$ D) $2\sqrt{21}$ E) $3\sqrt{10}$

PUZA ACADEMY

IRANINOVIN

9.



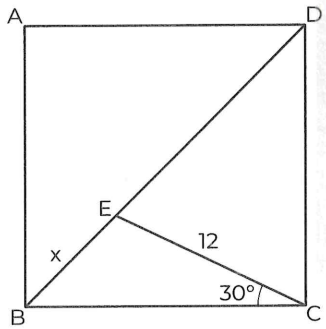
ABCD **kare** (square)

$m(\widehat{KBC}) = 15°$, $[DK] \perp [KB]$, $|DK| = 6$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 4 B) $4\sqrt{2}$ C) 8 D) $6\sqrt{2}$ E) 16

10.



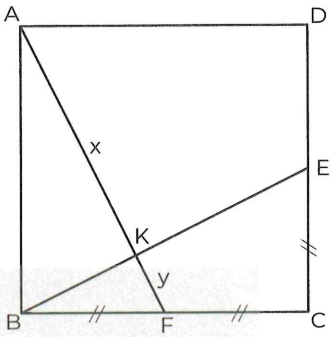
ABCD **kare** (square)

$m(\widehat{BCE}) = 30°$, $|EC| = 12$ br, $|EB| = x$

$\Rightarrow x = ?$

A) $\sqrt{2}$ B) $2\sqrt{2}$ C) $3\sqrt{2}$ D) $4\sqrt{2}$ E) $6\sqrt{2}$

11.



ABCD **kare** (square)

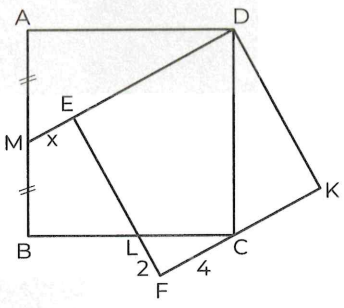
$|BF| = |FC| = |CE|$, $|AK| = x$, $|KF| = y$

$\Rightarrow \frac{x}{y} = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) 1 D) 2 E) 4

PUZA ACADEMY

12.



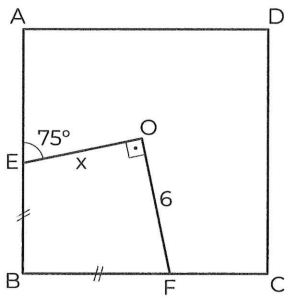
ABCD ve DEFK **kare** (square)

$|AM| = |MB|$, $|LF| = 2$ br, $|FC| = 4$ br, $|ME| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

13.



ABCD **kare** (square)

$m(\widehat{AEO}) = 75°$, $|EB| = |BF|$, $|OF| = 6$ br, $|OE| = x$

$\Rightarrow x = ?$

A) 6 B) $4\sqrt{2}$ C) $2\sqrt{3}$ D) 3 E) 4

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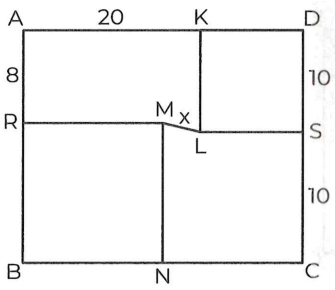
14.



ABCD **dikdörtgen** (rectangle)

KLSD ve RBNM **kare** (square)

$|AK| = 20$ br, $|DS| = |SC| = 10$ br,

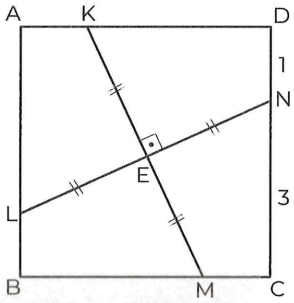
$|AR| = 8$ br, $|ML| = x$

$\Rightarrow x = ?$

A) $\sqrt{13}$ B) $\sqrt{17}$ C) $2\sqrt{5}$

D) $2\sqrt{13}$ E) $2\sqrt{17}$

15.



ABCD **kare** (square)

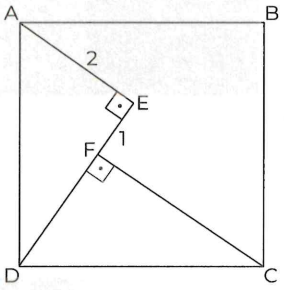
$|LE| = |EN| = |KE| = |EM|$, $|DN| = 1$ br, $|NC| = 3$ br

$\Rightarrow |KM| = ?$

A) $\sqrt{5}$ B) $2\sqrt{5}$ C) 51 D) $\sqrt{30}$ E) 6

PUZA ACADEMY

16.



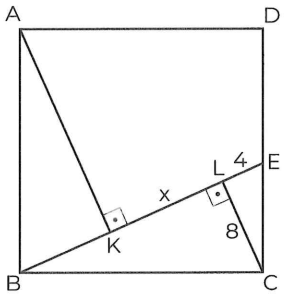
ABCD **kare** (square)

$[AE] \perp [ED]$, $[CF] \perp [ED]$, $|EF| = 1$ br, $|AE| = 2$ br

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 12 B) 13 C) 14 D) 15 E) 16

IRANINOVIN

17. 

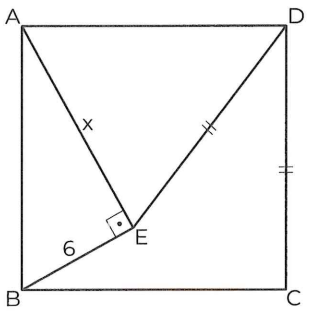
ABCD **kare** (square)

[AK] ⊥ [BE], [CL] ⊥ [BE], |LE| = 4 br, |LC| = 8 br

|KL| = x

⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 8

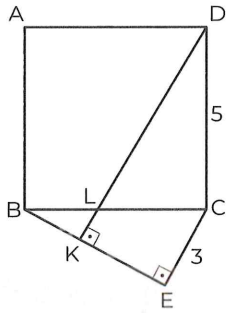
18. 

ABCD **kare** (square)

[AE] ⊥ [EB], |DC| = |DE|, |BE| = 6 br, |AE| = x

⇒ x = ?

A) 15 B) 12 C) 10 D) 8 E) 6

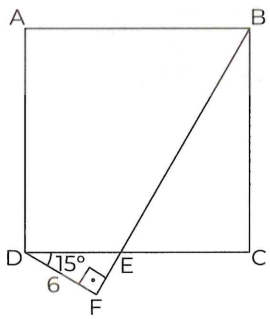
19. 

ABCD **kare** (square)

[DK] ⊥ [BE], [CE] ⊥ [BE], |CE| = 3 br, |DC| = 5 br

⇒ |DK| = ?

A) 8 B) 7 C) 6 D) 5 E) 4

20. 

ABCD **kare** (square)

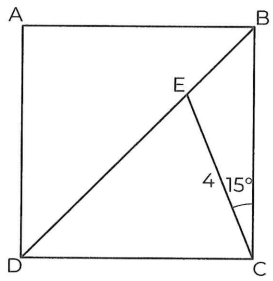
[DF] ⊥ [FB], $m(\widehat{CDF}) = 15°$, |DF| = 6 br

⇒ **Alan** (Area)(ABCD) = ?

A) 72 B) 96 C) 108 D) 144 E) 156

PUZA ACADEMY

21.



ABCD **kare** (square)

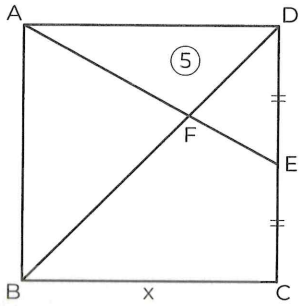
$m(\widehat{ECB}) = 15°$, $|EC| = 4$ br

[BD] **köşegen** (diagonal)

⇒ **Alan** (Area)(ABCD) = ?

A) 18 B) 24 C) 32 D) 36 E) 48

23.



ABCD **kare** (square)

$|DE| = |EC|$, **Alan** (Area)$(\widehat{AFD}) = 5$ br^2, $|BC| = x$

⇒ x = ?

A) $\sqrt{30}$ B) $3\sqrt{3}$ C) $2\sqrt{6}$ D) $2\sqrt{5}$ E) 4

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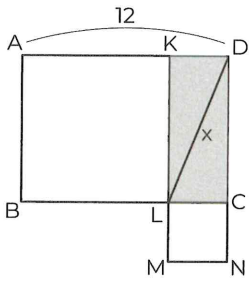
22.



ABLK, LMNC **kare** (square)

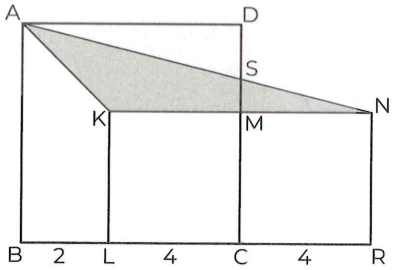
Alan (Area)(KLCD) = 32 br^2

$|AD| = 12$ br, $|DL| = x$

⇒ x = ?

A) $2\sqrt{5}$ B) 4 C) $4\sqrt{5}$ D) 8 E) $8\sqrt{5}$

24.



KLCM, MCRN **kare** (square)

ABCD **kare** (square)

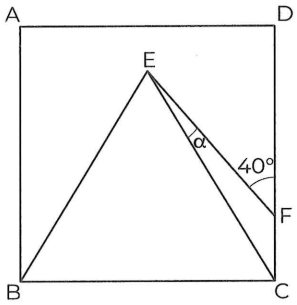
$|BL| = 2$ br, $|LC| = 4$ br, $|CR| = 4$ br

⇒ **Alan** (Area)$(\widehat{AKN})$ = ?

A) 24 B) 20 C) 16 D) 12 E) 8

IRANINOVIN

1.



ABCD **kare** (square)

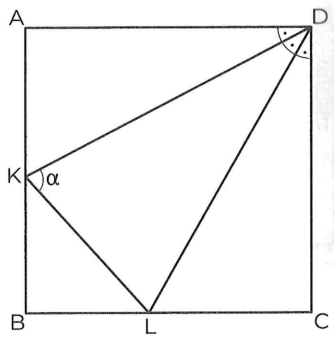
BEC **eşkenar üçgen** (equilateral triangle)

$m(\widehat{EFD}) = 40°$, $m(\widehat{CEF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 25 C) 20 D) 15 E) 10

2.



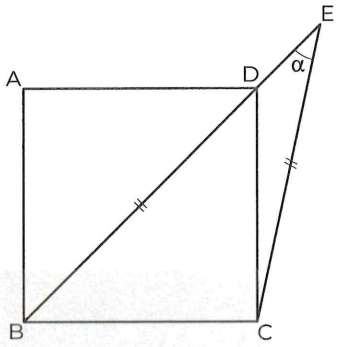
ABCD **kare** (square)

$m(\widehat{ADK}) = m(\widehat{KDL}) = m(\widehat{LDC})$, $m(\widehat{DKL}) = \alpha$

$\Rightarrow \alpha = ?$

A) 80 B) 75 C) 70 D) 65 E) 60

3.



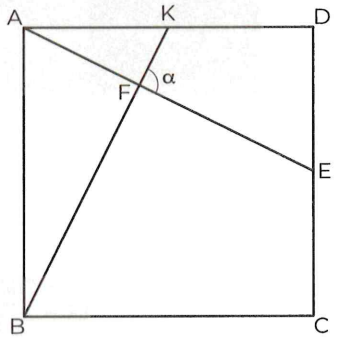
ABCD **kare** (square)

$|BD| = |EC|$, $m(\widehat{BEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 45 C) 30 D) 20 E) 15

4.



ABCD **kare** (square)

$|AK| = |DE|$, $m(\widehat{KFE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 90 B) 80 C) 70 D) 60 E) 50

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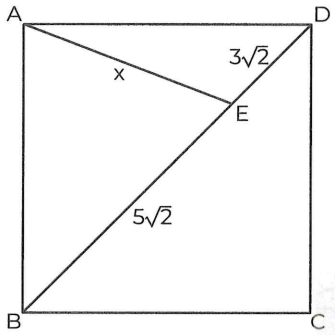
5.



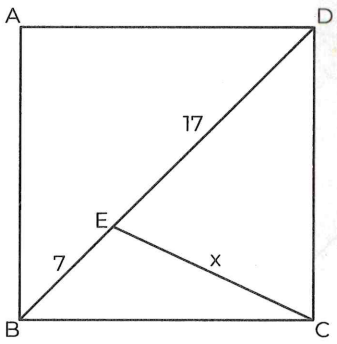
ABCD **kare** (square)

$|BE| = 5\sqrt{2}$ br, $|DE| = 3\sqrt{2}$ br, $|AE| = x$

$\Rightarrow x = ?$

A) $\sqrt{34}$ B) $\sqrt{35}$ C) 6 D) $\sqrt{41}$ E) $\sqrt{30}$

6.



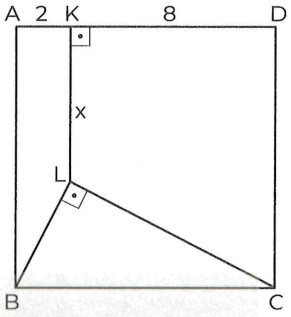
ABCD **kare** (square)

$|DE| = 17$ br, $|EB| = 7$ br, $|EC| = x$

$\Rightarrow x = ?$

A) 15 B) 13 C) 11 D) 10 E) 8

7.



ABCD **kare** (square)

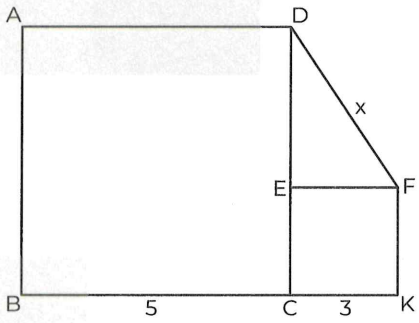
$[KL] \perp [AD]$, $[BL] \perp [LC]$, $|AK| = 2$ br, $|KD| = 8$ br

$|KL| = x$

$\Rightarrow x = ?$

A) 10 B) 8 C) 6 D) 5 E) 4

8.



ABCD **kare** (square),

ECKF **kare** (square)

$|CK| = 3$ br, $|BC| = 5$ br, $|DF| = x$

$\Rightarrow x = ?$

A) 3 B) $\sqrt{10}$ C) $\sqrt{13}$ D) 4 E) $2\sqrt{5}$

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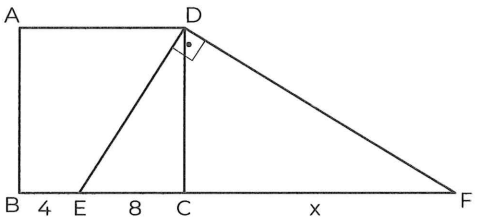
IRANINOVIN

9.



ABCD **kare** (square)

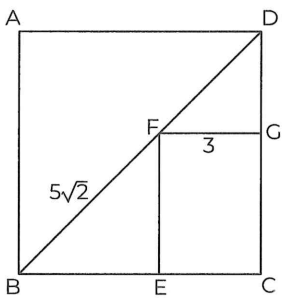
[ED] ⊥ [DF]

|BE| = 4 br, |EC| = 8 br, |CF| = x

⇒ x = ?

A) 18 B) 12 C) 10 D) 8 E) 6

10.



ABCD **kare** (square)

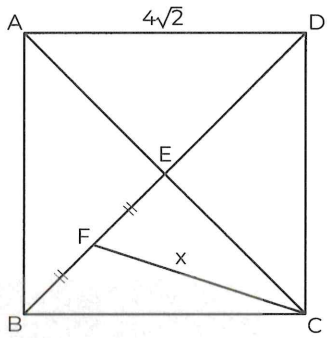
EFGC **dikdörtgen** (rectangle)

|FG| = 3 br, |BF| = $5\sqrt{2}$ br

⇒ **Çevre** (Perimeter)(ABCD) = ?

A) 40 B) 36 C) 32 D) 28 E) 24

11.



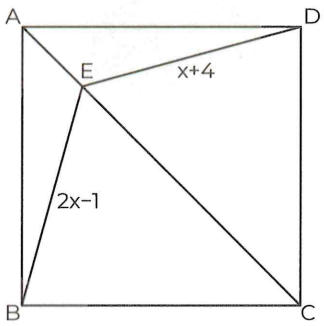
ABCD **kare** (square)

|BF| = |FE|, |AD| = $4\sqrt{2}$ br, |FC| = x

⇒ x = ?

A) $2\sqrt{7}$ B) $2\sqrt{6}$ C) $2\sqrt{5}$ D) 4 E) $2\sqrt{3}$

12.



ABCD **kare** (square)

|DE| = x + 4, |BE| = 2x − 1

⇒ x = ?

A) 9 B) 8 C) 7 D) 6 E) 5

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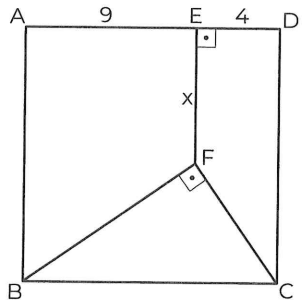
13. 

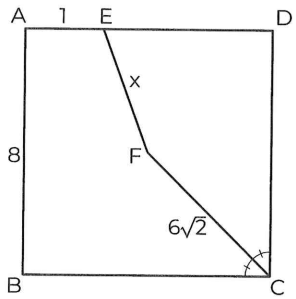
ABCD **kare** (square)

[FE] ⊥ [AD], [BF] ⊥ [FC], |ED| = 4 br, |AE| = 9 br

|EF| = x

⇒ x = ?

A) 1 B) 2 C) 4 D) 6 E) 7

14. 

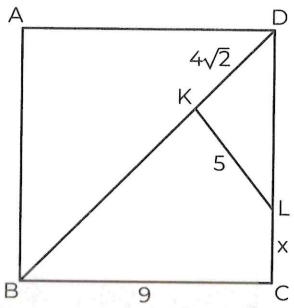
ABCD **kare** (square)

$m(\widehat{BCF}) = m(\widehat{FCD})$, |AE| = 1 br, |FC| = $6\sqrt{2}$ br

|AB| = 8 br, |EF| = x

⇒ x = ?

A) 2 B) $\sqrt{5}$ C) $\sqrt{6}$ D) $\sqrt{7}$ E) $2\sqrt{2}$

15. 

ABCD **kare** (square)

|BC| = 9 br, |KD| = $4\sqrt{2}$ br, |KL| = 5 br, |LC| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

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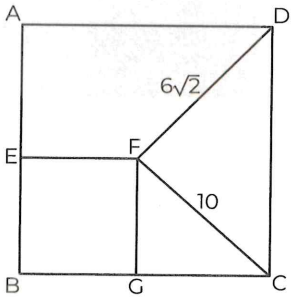
16. 

ABCD, BGFE **kare** (square)

|DF| = $6\sqrt{2}$ br, |FC| = 10 br

⇒ **Çevre** (Perimeter)(BGFE) = ?

A) 32 B) 24 C) 16 D) 12 E) 8

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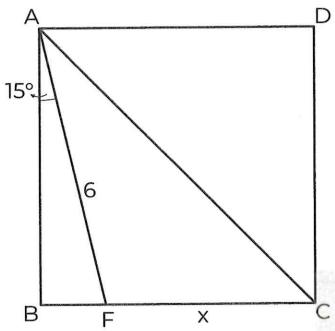
17.



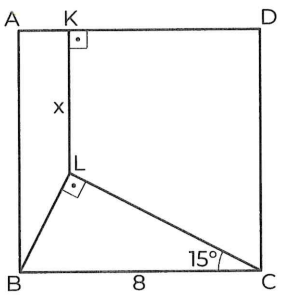
ABCD **kare** (square)

$m(\widehat{BAF}) = 15°$, $|AF| = 6$ br, $|FC| = x$

$\Rightarrow x = ?$

A) 3 B) $3\sqrt{2}$ C) 6 D) $6\sqrt{2}$ E) 12

18.



ABCD **kare** (square)

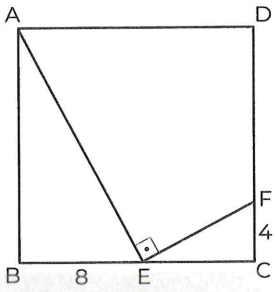
$[KL] \perp [AD]$, $[BL] \perp [LC]$

$m(\widehat{BCL}) = 15°$, $|BC| = 8$ br, $|KL| = x$

$\Rightarrow x = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

19.



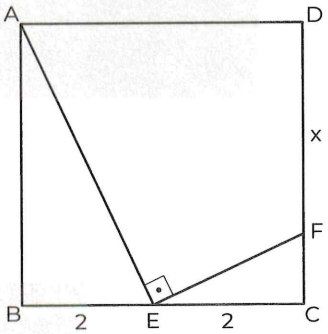
ABCD **kare** (square)

$[AE] \perp [EF]$, $|FC| = 4$ br, $|BE| = 8$ br

$\Rightarrow$ **Çevre** (Perimeter)(ABCD) = ?

A) 16 B) 32 C) 48 D) 64 E) 72

20.



ABCD **kare** (square)

$[AE] \perp [EF]$, $|BE| = |EC| = 2$ br, $|DF| = x$

$\Rightarrow x = ?$

A) $\frac{7}{2}$ B) $\frac{13}{4}$ C) 3 D) $\frac{11}{2}$ E) $\frac{5}{2}$

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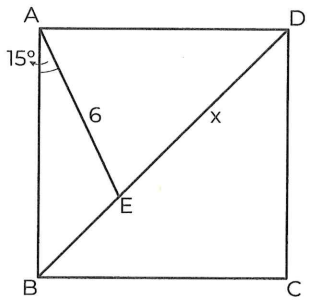
21.



ABCD **kare** (square)

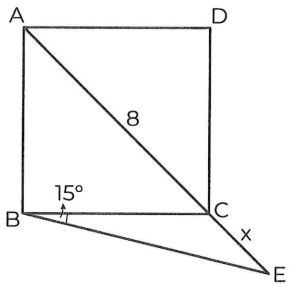
$m(\widehat{BAE}) = 15°$, $|AE| = 6$ br, $|DE| = x$

$\Rightarrow x = ?$

A) $3\sqrt{3}$ B) $3\sqrt{3} + 3$ C) $3\sqrt{3} + 6$

D) $6 + 2\sqrt{3}$ E) $6 + 6\sqrt{3}$

22.



ABCD **kare** (square)

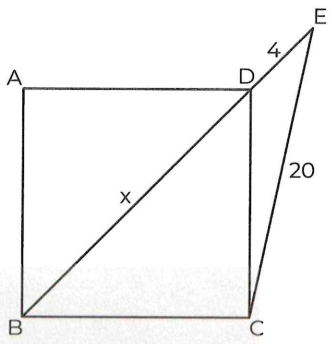
$m(\widehat{CBE}) = 15°$, $|AC| = 8$ br, $|CE| = x$

$\Rightarrow x = ?$

A) $2\sqrt{2} + 2$ B) $2\sqrt{3} + 2$ C) $2\sqrt{3} - 2$

D) $4\sqrt{2} - 4$ E) $4\sqrt{3} - 4$

23.



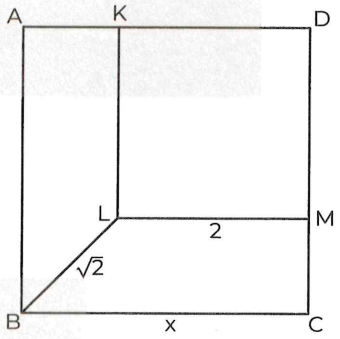
ABCD **kare** (square)

$|DE| = 4$ br, $|EC| = 20$ br, $|DB| = x$

$\Rightarrow x = ?$

A) 12 B) 16 C) 18 D) 20 E) 24

24.



ABCD ve KLMD **kare** (square)

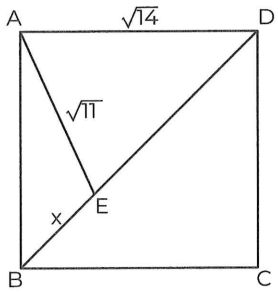
$|LB| = \sqrt{2}$ br, $|LM| = 2$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 2 B) 3 C) 4 D) 5 E) 6

PUZA ACADEMY

IRANINOVIN

25. 

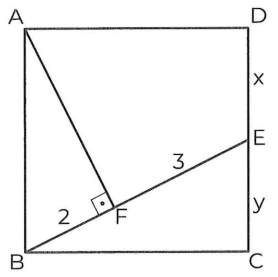
ABCD **kare** (square)

$|AE| = \sqrt{11}$ br, $|AD| = \sqrt{14}$ br, $|EB| = x$

$\Rightarrow x = ?$

A) $\sqrt{7} + 2$ B) $\sqrt{7} + 1$ C) $\sqrt{7}$

D) $\sqrt{7} - 2$ E) $2\sqrt{7}$

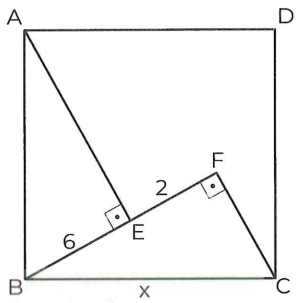
26. 

ABCD **kare** (square)

$[AF] \perp [BE]$, $|BF| = 2$ br, $|FE| = 3$ br, $|DE| = x$

$|EC| = y \Rightarrow \frac{x}{y} = ?$

A) $\frac{1}{2}$ B) 1 C) $\frac{3}{2}$ D) 2 E) 3

27. 

ABCD **kare** (square)

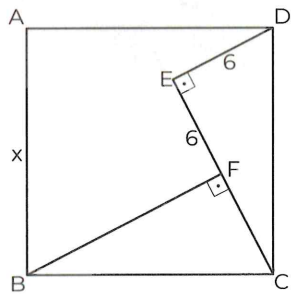
$[AE] \perp [BF]$, $[BF] \perp [FC]$, $|BE| = 6$ br, $|EF| = 2$ br

$|BC| = x$

$\Rightarrow x = ?$

A) $\sqrt{115}$ B) $\sqrt{109}$ C) 10

D) $\sqrt{95}$ E) $3\sqrt{20}$

28. 

ABCD **kare** (square)

$[DE] \perp [EC]$, $[BF] \perp [EC]$, $|ED| = |EF| = 6$ br

$|AB| = x$

$\Rightarrow x = ?$

A) 12 B) $4\sqrt{10}$ C) $6\sqrt{5}$ D) $8\sqrt{3}$ E) $12\sqrt{2}$

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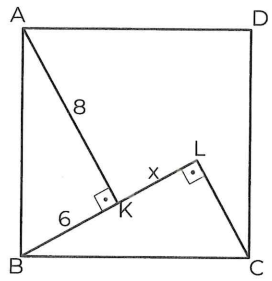
29.



ABCD **kare** (square)

[AK] ⊥ [BL], [BL] ⊥ [LC], |BK| = 6 br, |AK| = 8 br

|KL| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

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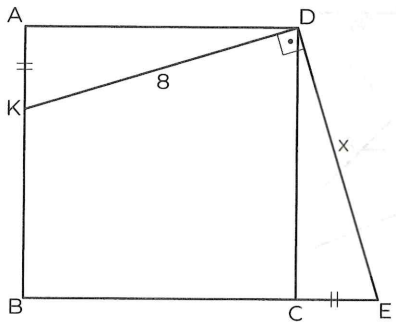
30.



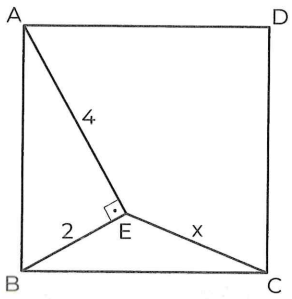
ABCD **kare** (square)

[KD] ⊥ [DE], |AK| = |CE|, |KD| = 8 br, |DE| = x

⇒ x = ?

A) 15 B) 12 C) 8 D) 6 E) 4

31.



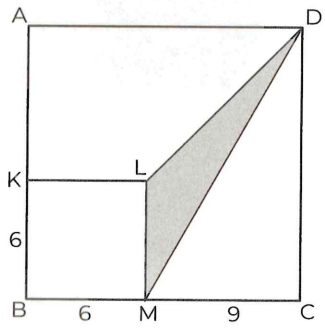
ABCD **kare** (square)

[AE] ⊥ [BE], |BE| = 2 br, |AE| = 4 br, |EC| = x

⇒ x = ?

A) 2 B) $2\sqrt{2}$ C) $2\sqrt{3}$ D) $\sqrt{3}$ E) $4\sqrt{3}$

32.



ABCD **kare** (square), BMLK **kare** (square)

|KB| = |BM| = 6 br, |MC| = 9 br

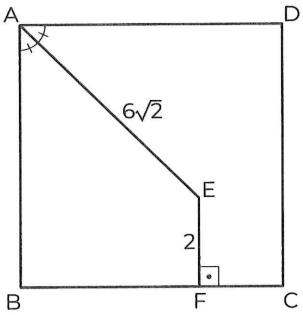
⇒ **Alan** (Area)($\widehat{LMD}$) = ?

A) 9 B) 18 C) 24 D) 25 E) 27

PUZA ACADEMY

IRANINOVIN

33.



ABCD **kare** (square)

$m(\widehat{BAE}) = m(\widehat{EAD})$, $[EF] \perp [BC]$, $|AE| = 6\sqrt{2}$ br,

$|EF| = 2$ br ⇒ **Alan** (Area)(ABCD) = ?

A) 72 B) 64 C) 54 D) 40 E) 32

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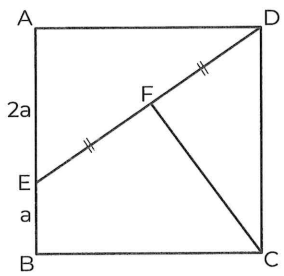
34.



ABCD **kare** (square)

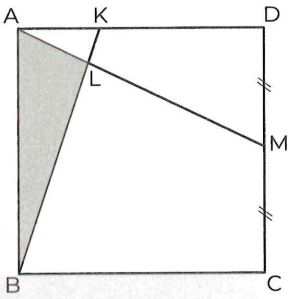
$|EF| = |FD|$, $2|EB| = |AE| = 2a$

Alan (Area)(BCFE) = 40 br^2

⇒ **Alan** (Area)(ABCD) = ?

A) 96 B) 90 C) 84 D) 80 E) 72

35.



ABCD **kare** (square)

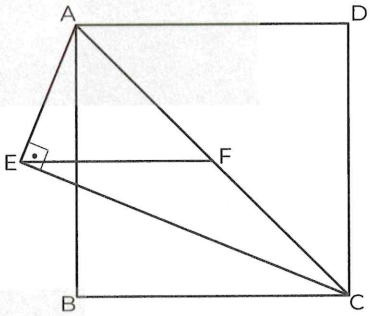
$|KD| = 2|AK|$, $|DM| = |MC| = 3$ br

⇒ **Alan** (Area)($\widehat{ABL}$) = ?

A) 7 B) 14 C) $\frac{18}{7}$ D) $\frac{36}{7}$ E) $\frac{43}{7}$

PUZA ACADEMY

36.



ABCD **kare** (square)

$|AF| = |FC|$, $|EF| = 4$ br, $[AE] \perp [EC]$

⇒ **Alan** (Area)(ABCD) = ?

A) 32 B) 36 C) 40 D) 42 E) 64

NOTES:

SQUARE

KARE

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
D	A	E	E	D	A	E	C	D	E	E	B

13	14	15	16	17	18	19	20	21	22	23	24
C	E	B	B	E	B	B	A	B	C	A	E

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
E	B	C	A	A	B	C	C	A	C	C	E

13	14	15	16	17	18	19	20	21	22	23	24
E	B	B	A	B	C	D	C	B	E	E	B

25	26	27	28	29	30	31	32	33	34	35	36
D	B	C	C	B	C	B	E	B	A	D	A

NOTES:

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NOTES:

ANALYTICAL COORDINATE SYSTEM

ANALİTİK KOORDİNAT SİSTEMİ

CHAPTER | BÖLÜM 17

IRANINOVIN

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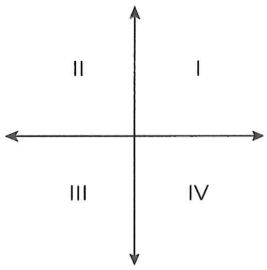
1.



K(2m + 2, m – 4) noktası koordinat düzleminde IV. bölgede olduğuna göre, m'nin alacağı tam sayı değerlerinin toplamı kaçtır?

What is the sum of integer values m can take while the K(2m + 2, m – 4) point is in the 4th coordinate plane?

A) 5 B) 6 C) 7 D) 8 E) 9

2. **Analitik düzlemde A(a – 2, b + a) noktası orijinde olduğuna göre, B(–a, b) noktası hangi bölgededir?**

In analytic plane A(a – 2, b + 2) is at origin while where is B(–a, b)?

A) I. Bölge (I. Quadrant)
B) II. Bölge (II. Quadrant)
C) III. Bölge (III. Quadrant)
D) IV. Bölge (IV. Quadrant)
E) Orijin (Origin)

3. **Analitik düzlemde A(a – 4, a + 1) noktası y ekseni üzerinde olduğuna göre, ordinatı kaçtır?**

In analytic plane, A(a – 4, a + 1) is at y – axis while what is the ordinate?

A) 5 B) 4 C) 1 D) –1 E) –5

4. **A(a + 4, b – 1) noktasının x eksenine uzaklığı 5 birim, y eksenine uzaklığı 6 birimdir. Buna göre a + b en çok kaçtır?**

The distance A(a + 4, b – 1) to x axis 5 units and the distance A(a + 4, b – 1) to y – axis 6 units while what is the value of max(a + b)?

A) 2 B) 4 C) 6 D) 8 E) 10

5. **A(8, n – 5), B(n + 3, –7) noktaları analitik düzlemde aynı bölgede olduklarına göre, n kaç farklı tam sayı değeri alabilir?**

Points A(8, n – 5) and B(n + 3, –7) in the same quadrant while how many x can takes different integer values?

A) 5 B) 6 C) 7 D) 8 E) 9

6. **Analitik düzlemde A(–1, 3), B(2, –1) noktaları arasındaki uzaklık kaç birimdir?**

What is the distance between A(–1, 3) and B(2, –1) on the analytic plane?

A) $2\sqrt{5}$ B) $2\sqrt{6}$ C) 5 D) $4\sqrt{2}$ E) 6

PUZA ACADEMY

IRANINOVIN

7. A(–2, 3)
B(3, –9)
⇒ |AB| = ?

A) 10 B) 13 C) 14 D) 15 E) 17

8. A(3, –1) B(0, 4) C(k, 0)
|AC| = |BC|
⇒ k = ?

A) –4 B) –3 C) –2 D) –1 E) 1

9. A(5, 2)
B(–1, –10)
⇒ |AB| = ?

A) $2\sqrt{3}$ B) $6\sqrt{2}$ C) $5\sqrt{3}$
D) $6\sqrt{5}$ E) $8\sqrt{5}$

10. **A(k, 9) ve B(3, 2k) noktaları veriliyor. [AB] doğru parçasının orta noktası x ve y eksenlerine eşit uzaklıkta olduğuna göre k kaç olabilir?**
Points A(k, 9) and B(3, 2k) on the analytical plane, while the distance of the midpoint of [AB] is equal to the axis then what is the value of k?

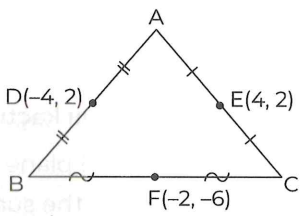
A) 6 B) 2 C) 0 D) –2 E) –6

11. A(m + n, 2m – n) C(–1, 0) B(m – 4, m + 2)

A, B, C **doğrusal** (linear)
|AC| = |CB|
⇒ (m, n) = ?

A) (0, 2) B) (4, 2) C) (2, –4)
D) (2, 4) E) (4, –2)

12.



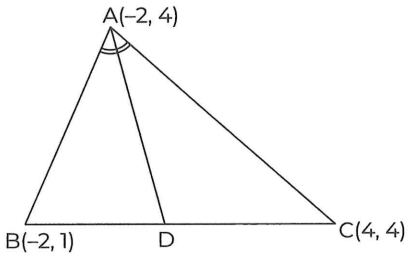
ABC üçgeninde D(–4, 2), E(4, 2), F(–2, –6) kenarların orta noktalarıdır. Buna göre A noktasının koordinatları aşağıdakilerden hangisidir?
In the triangle ABC, D(–4, 2), E(4, 2), F(–2, –6) are midpoints of the edges while what is the coordinates of point A?

A) (3, 2) B) (2, –10) C) (–2, 10)
D) (2, 10) E) (–3, –2)

PUZA ACADEMY

IRANINOVIN

13.



ABC **üçgen** (triangle), [AD] **açıortay** (bisector)
A(–2, 4), B(–2, 1), C(4, 4) ⇒ |AD| = ?

A) $\sqrt{5}$ B) $2\sqrt{2}$ C) 3 D) $\sqrt{13}$ E) $2\sqrt{13}$

14. Analitik düzlemde A(–12, 3) ve B(3, 13) noktaları veriliyor.

A, B, C **doğrusal** (linear)

$C \in [AB]$

$$\frac{|AC|}{|AB|} = \frac{2}{5}$$

⇒ **C noktasının koordinatlarının toplamı kaçtır?**

If the point A and B on the analytical plane and A, B, C are linear points then what is the sum of coordinate of point C?

A) –9 B) –1 C) 1 D) 13 E) 16

15. Analitik düzlemde A(3, 6) ve B(13, 1) noktaları veriliyor.

$C \in AB$

$C \notin [AB]$

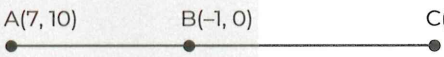
$$\frac{|AC|}{|BC|} = \frac{2}{3}$$

⇒ **C noktasının koordinatlarının toplamı kaçtır?**

If the point A(3, 6) and B(13, 1) are given on the analytical plane then what is the sum of the coordinate of point C?

A) –1 B) 1 C) 8 D) 9 E) 10

16.



A, B, C **doğrusal** (linear)

$2|BC| = 3|AB|$

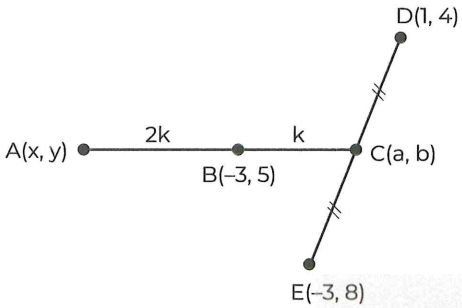
⇒ C(x, y) = ?

A) (13, 15) B) (–13, 15) C) (13, –15)
D) (–13, –15) E) (15, –13)

PUZA ACADEMY

IRANINOVIN

17.



A, B, C **doğrusal** (linear)

D, C, E **doğrusal** (linear)

⇒ A(x, y) = ?

A) (–5, 4) B) (–7, 3) C) (3, –7)

D) (–7, –3) E) (–3, –7)

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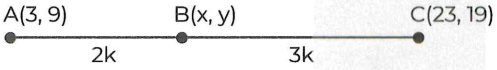
18.



A, B, C **doğrusal** (linear)

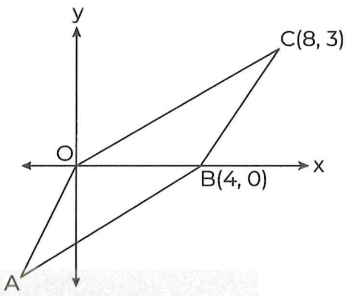
⇒ (x, y) = ?

A) (11, 13) B) (–11, 13) C) (–11, –13)

D) (13, 11) E) (11, –13)

PUZA ACADEMY

19.



OABC **paralelkenar** (parallelogram)

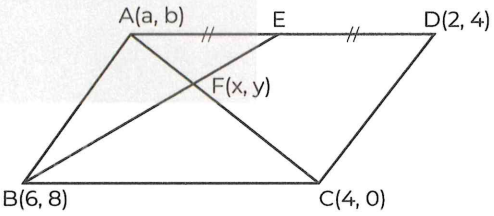
B(4, 0), C(8, 3)

⇒ **|AC| köşegeninin uzunluğu kaç birimdir?**

What is the value of the |AC| diagonal?

A) $6\sqrt{5}$ B) $3\sqrt{10}$ C) 10 D) $6\sqrt{3}$ E) 13

20.



ABCD **paralelkenar** (parallelogram)

|AE| = |ED|

[BC] // [AD], [AB] // [DC]

⇒ F(x, y) = ?

A) (4, 8) B) (–2, 4) C) (6, 0)

D) (4, –8) E) (–4, –8)

IRANINOVIN

21. **Analitik düzlemde köşe koordinatları A(5, 7), B(12, –4) ve C(1, 3) olan ABC üçgeninin alanı kaçtır?**

What is the area of the triangle with corner A(5, 7), B(12, –4) and C(1, 3)?

A) 25 B) 30 C) 36 D) 40 E) 45

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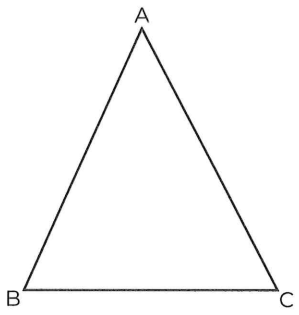
22.



ABC **üçgen** (triangle)

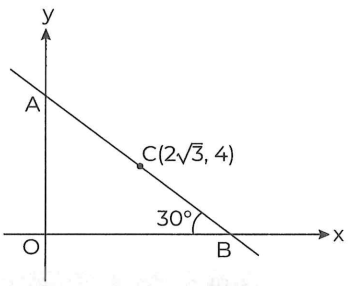
A(1, 4) , B(–2, 3) , C(–5, 5)

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 4 B) $\frac{9}{2}$ C) 5 D) $\frac{11}{2}$ E) 6

PUZA ACADEMY

23.

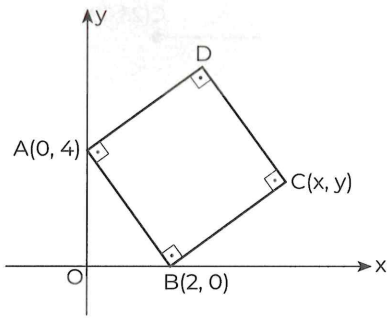


Analitik düzlemde verilen şekildeki AOB üçgeninin alanı kaç birimkaredir?

What is the area of triangle AOB on the analytic plane?

A) $6\sqrt{3}$ B) $9\sqrt{3}$ C) $12\sqrt{3}$ D) $15\sqrt{3}$ E) $18\sqrt{3}$

24.



ABCD **kare** (square)

⇒ x + y = ?

A) 4 B) 6 C) 8 D) 10 E) 11

1. **A(3x – 12, x + 2) noktası koordinat düzleminde II. bölgede bulunduğuna göre, x'in alabileceği tam sayı değerleri toplamı kaçtır?**

If the point A(3x – 12, x + 2) is on the 2nd quadrant then what is the sum of the integer values for x?

A) 2 B) 3 C) 5 D) 6 E) 7

2. **Analitik düzlemde B(x – 2, 4x – 4) noktası y ekseni üzerinde ise ordinatı kaçtır?**

If the point B(x – 2, 4x – 4) on the y axis, what is the value of ordinate?

A) –1 B) 1 C) 2 D) 3 E) 4

3. **Analitik düzlemde A(5a – 2b + 12, 3a + 6) noktası orijinde olduğuna göre B(a, –b) hangi bölgededir?**

In analytic plane A(5a – 2b + 12, 3a + 6) is at origin which is the B(a, –b) on the quadrant?

A) I. Bölge (I. Quadrant)
B) II. Bölge (II. Quadrant)
C) III. Bölge (III. Quadrant)
D) IV. Bölge (IV. Quadrant)
E) Orijin (Origin)

4. **A(a – b, a · b) noktası analitik düzlemde IV. bölgede ise C(a^2b^3, a + |b|) noktası hangi bölgededir?**

The point A(a – b, a · b) is in the 4th quadrant, which is the C(a^2b^3, a + |b|) on the quadrant?

A) I. Bölge (I. Quadrant)
B) II. Bölge (II. Quadrant)
C) III. Bölge (III. Quadrant)
D) IV. Bölge (IV. Quadrant)
E) Orijin (Origin)

5. **Koordinat düzleminde A(2a+5, a+9) noktasının eksenlere uzaklıklarının toplamı 29 birimdir. A noktasının x eksenine uzaklığı kaç birimdir?**

If the point A(2a+5, a+9) sum of distance of x and y axis are 29 units. What is the distance of point A to the x axis?

A) 12 B) 13 C) 14 D) 15 E) 16

6. **Analitik düzlemde A(–4, –3), B(2, 5) noktaları arasındaki uzaklık nedir?**

What is the distance between the two points of A and B on the analytic plane?

A) $2\sqrt{2}$ B) 5 C) $3\sqrt{9}$ D) $6\sqrt{2}$ E) 10

PUZA ACADEMY

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IRANINOVIN

7. **Analitik düzlemde A(k, –3) ve B(6, 9) noktaları veriliyor. |AB| = 15 br ise k'nın alabileceği değerler toplamı kaçtır?**

If the point A(k, –3) and B(6, 9) on the analytic plane and |AB| = 15 units then what is the sum of possible integer values of k?

A) –3 B) 6 C) 8 D) 12 E) 15

8. A(–2, 6)

B(4, 8)

C(0, y)

|AC| = |BC|

⇒ y = ?

A) 15 B) 14 C) 12 D) 11 E) 10

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9. A(m, 2) B(6, 2) C(9, –2)

|AB| = |AC|

⇒ m = ?

A) 6 B) $\frac{67}{6}$ C) $\frac{65}{6}$ D) $\frac{61}{6}$ E) 9

10. A(0, 2) B(m, –3) C(2, 1)

|AB| = |BC|

⇒ m = ?

A) $-\frac{5}{4}$ B) $-\frac{15}{2}$ C) –10 D) $-\frac{8}{3}$ E) $-\frac{7}{2}$

PUZA ACADEMY

11. **Analitik düzlemde A(4, a – b) ve B(2, 5) noktaları veriliyor. |AB| doğru parçasının orta noktasının koordinatları C(a + b, 1) dir. Buna göre |AB| kaçtır?**

Point A(4, a – b) and B(2, 5) on the analytical plane. The coordinates of midpoint of the line segment C(a + b, 1) are |AB|. So what is |AB|?

A) $4\sqrt{2}$ B) $4\sqrt{3}$ C) $3\sqrt{9}$ D) $2\sqrt{17}$ E) $6\sqrt{2}$

12. A(6, m–2) C(x, 0) B(–2, 4)

A, C, B **doğrusal** (linear)

|AC| = |CB|

⇒ m · x = ?

A) 0 B) –1 C) –2 D) –3 E) –4

13. A(9, 7) C(3, –5) B(x, y)

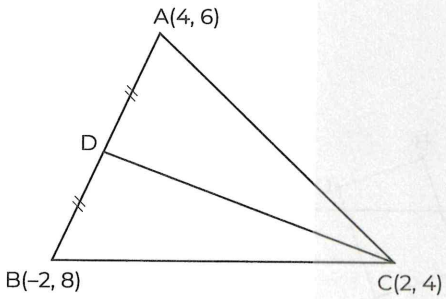
A, B, C **doğrusal** (linear)

$\frac{|AC|}{|BC|} = \frac{2}{3}$

$\Rightarrow$ B(x, y) = ?

A) (–6, –23) B) (6, 23) C) (–6, 23)
D) (23, 6) E) (6, –23)

14.



ABC **üçgen** (triangle)

|AD| = |DB|, A(4, 6) B(–2, 8) C(2, 4)

$\Rightarrow$ |CD| = ?

A) $\sqrt{2}$ B) $2\sqrt{10}$ C) $\sqrt{10}$
D) $2\sqrt{5}$ E) $\sqrt{5}$

15. A(1, 4) B(3, 2) C(x, y)

A, B, C **doğrusal** (linear)

2|AB| = |BC|

$\Rightarrow$ C(x, y) = ?

A) (4, 1) B) (7, –2) C) (5, –2)
D) (7, 6) E) (0, 2)

16. A(3, 2) B(12, 10) C(x, y)

A, B, C **doğrusal** (linear)

$\frac{|AC|}{|BC|} = \frac{3}{2}$

$\Rightarrow$ C(x, y) = ?

A) (–26, 28) B) (28, 26) C) (30, –26)
D) (30, 26) E) (–30, –28)

PUZA ACADEMY

IRANINOVIN

17. A(10, 6) B(8, 6) C(x, y)

A, B, C **doğrusal** (linear)

$\frac{|AC|}{|BC|} = \frac{4}{3}$

$\Rightarrow (x, y) = ?$

A) (2, 6) B) (6, 2) C) (–2, 6)
D) (–2, –6) E) (–6, 2)

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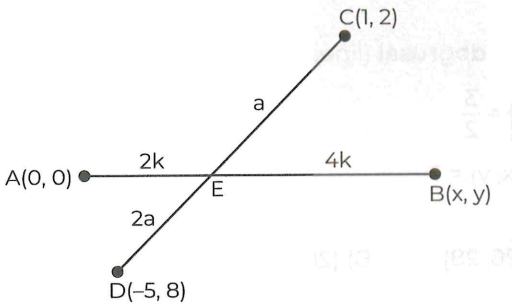
18.



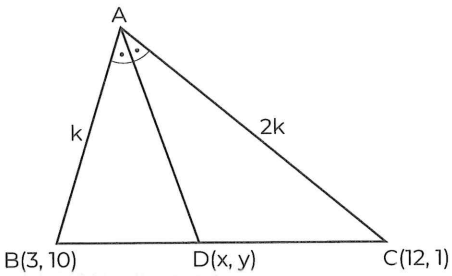
A, E, B **doğrusal** (linear)

C, E, D **doğrusal** (linear)

$\Rightarrow (x, y) = ?$

A) (3, 12) B) (4, 14) C) (12, 9)
D) (–3, 12) E) (14, 4)

19.



ABC **üçgen** (triangle)

$m(\widehat{BAD}) = m(\widehat{DAC})$

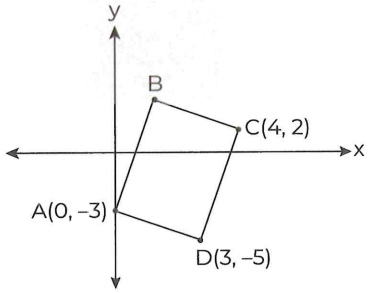
$2|AB| = |AC| = 2k$

$\Rightarrow D(x, y) = ?$

A) (–6, 7) B) (6, 7) C) (7, –6)
D) (–6, –7) E) (7, 6)

PUZA ACADEMY

20.



ABCD **paralelkenar** (paralellogram)

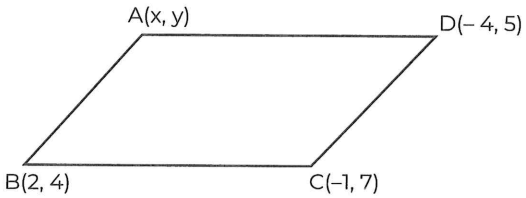
A(0, –3), C(4, 2), D(3, –5)

$\Rightarrow |BD| = ?$

A) $\sqrt{17}$ B) $\sqrt{34}$ C) $3\sqrt{9}$
D) $2\sqrt{19}$ E) $\sqrt{85}$

IRANINOVIN

21.



ABCD **paralelkenar** (parallelogram)

[BC] // [AD], [AB] // [DC]

⇒ A(x, y) = ?

A) (2, –1) B) (1, –2) C) (–1, –2)
D) (–1, 2) E) (1, 2)

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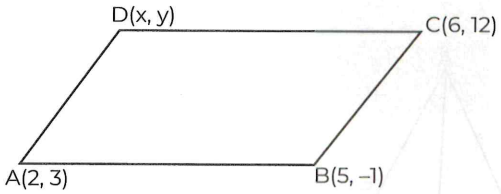
22.



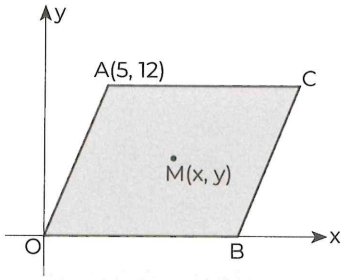
ABCD **paralelkenar** (parallelogram)

[AB] // [DC], [AD] // [BC]

⇒ D(x, y) = ?

A) (16, 3) B) (3, 15) C) (3, 16)
D) (–3, 16) E) (16, –3)

23.



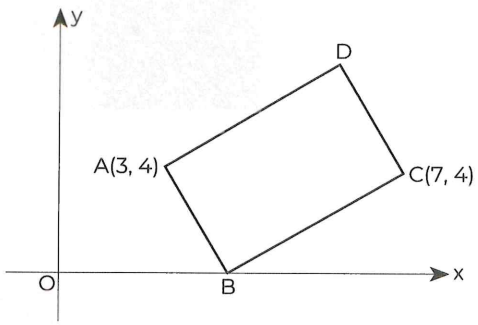
M ağırlık merkezi (center of gravity)

AOBC **eşkenar dörtgen** (rhombus)

⇒ M(x, y) = ?

A) (6, 10) B) (9, 10) C) (6, 9)
D) (9, 6) E) (10, 9)

24.



ABCD **paralelkenar** (parallelogram)

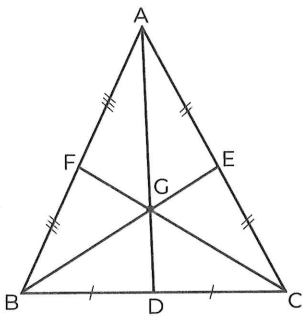
⇒ **Alan** (Area)(ABCD) = ?

A) 14 B) 15 C) 16 D) 17 E) 18

PUZA ACADEMY

IRANINOVIN

25.



ABC **üçgen** (triangle)

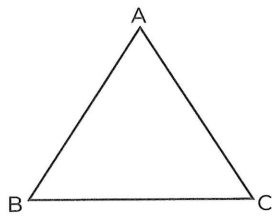
$|AF| = |FB|$, $|BD| = |DC|$, $|AE| = |EC|$

A(4, 8) B(–1, 7) G(1, 3)

$\Rightarrow$ C(x, y) = ?

A) (0, –6) B) (5, –1) C) (6, 0)
D) (–6, 0) E) (–5, 1)

26.



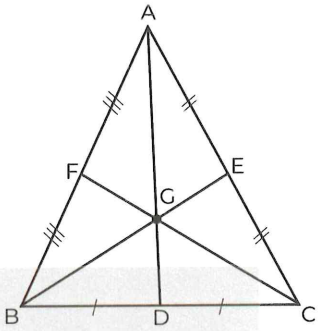
ABC **üçgen** (triangle)

A(a, 4) , B(6, 2) , C(–1, 3)

Alan (Area)($\widehat{ABC}$) = 4 br^2 $\Rightarrow$ a = ?

A) –19 B) –17 C) –16 D) –12 E) –10

27.



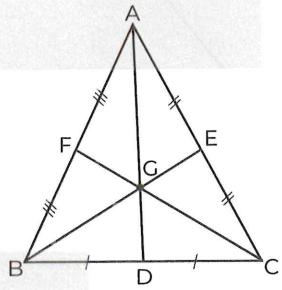
ABC **üçgen** (triangle)

$|AF| = |FB|$, $|AE| = |EC|$, $|BD| = |DC|$

A(1, 4) B(–2, 3) C(–2, 2) $\Rightarrow$ G(x, y) = ?

A) (1, 3) B) (3, 1) C) (–1, 3)
D) (–3, –1) E) (–3, 1)

28.



ABC **üçgen** (triangle)

$|BD| = |DC|$, $|AF| = |FB|$, $|AE| = |EC|$

A(7, 5) , B(–1, 11) , C(m, n)

G(x, 0) $\Rightarrow$ n = ?

A) –14 B) –15 C) –16 D) –19 E) –20

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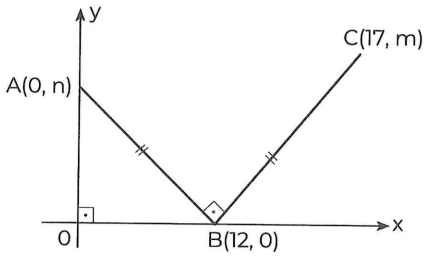
29.

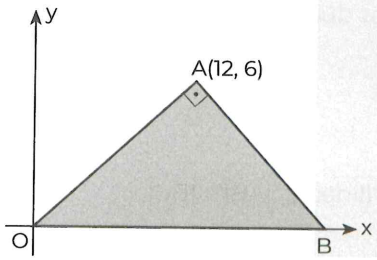


[AB] ⊥ [BC] , |AB| = |BC|

⇒ m + n = ?

A) 16 B) 17 C) 19 D) 21 E) 23

30.

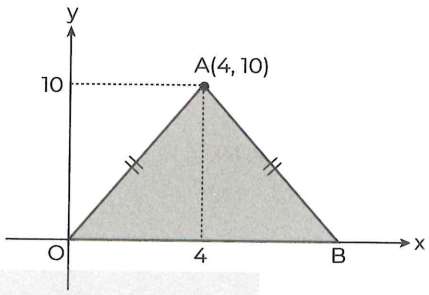


[OA] ⊥ [AB]

⇒ **Alan** (Area)($\widehat{AOB}$) = ?

A) 36 B) 40 C) 45 D) 50 E) 55

31.



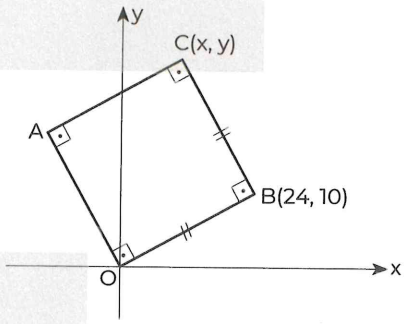
AOB **üçgen** (triangle)

|OA| = |AB|

⇒ **Alan** (Area)($\widehat{AOB}$) ?

A) 20 B) 30 C) 40 D) 50 E) 60

32.



AOBC **kare** (square)

|OB| = |BC|

⇒ x + y = ?

A) 58 B) 52 C) 48 D) 42 E) 40

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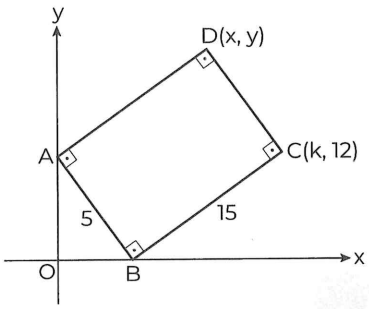
33.



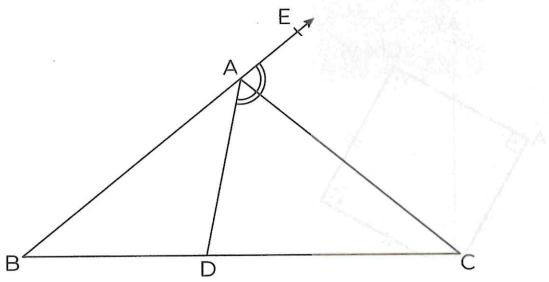
ABCD **dikdörtgen** (rectangle)

|AB| = 5 br, |BC| = 15 br

$\Rightarrow \frac{x+y}{k} = ?$

A) $\frac{5}{3}$ B) $\frac{3}{5}$ C) $\frac{12}{13}$ D) 3 E) $\frac{24}{13}$

34.



ABC **üçgen** (triangle)

E, A, B **doğrusal** (linear)

$m(\widehat{DAC}) = m(\widehat{CAF})$

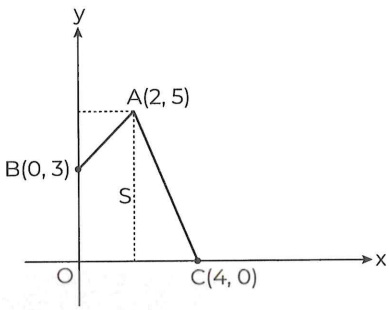
3|AD| = 2|AB|, B(2, 3), D(–5, 7)

⇒ C noktasının koordinatları toplamı kaçtır?

What is the sum of the coordinate

A) –5 B) –4 C) –3 D) 2 E) 4

35.



⇒ S = ?

A) 8 B) 10 C) 13 D) 15 E) 16

PUZA ACADEMY

36. Analitik koordinat düzleminde,

A(2x + 4, y + 2)

B(3x – 4, 2y + 3)

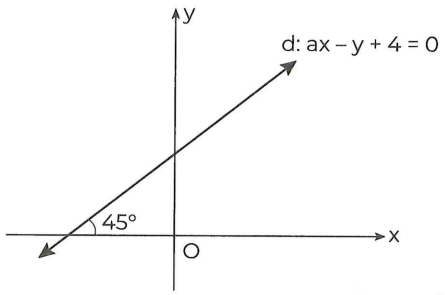
C(3x + 3, y + 4)

A, B, C **doğrusal** (linear), |AB| = |BC|

⇒ x + y = ?

A) 12 B) 14 C) 15 D) 17 E) 19

1.

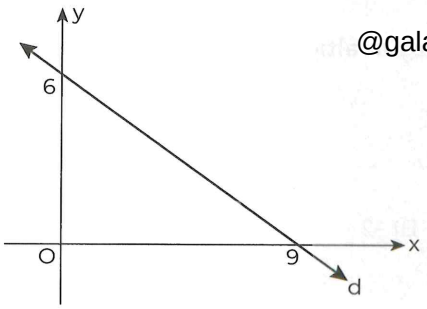


d : ax – y + 4 = 0

⇒ a = ?

A) –2 B) –1 C) 0 D) 1 E) 2

2.



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⇒ m_d = ?

A) –2 B) –1 C) $-\frac{2}{3}$ D) $\frac{1}{3}$ E) $\frac{2}{3}$

3. d: 3x – y + 5 = 0

⇒ m_d = ?

A) –3 B) $-\frac{1}{3}$ C) $\frac{1}{3}$ D) 1 E) 3

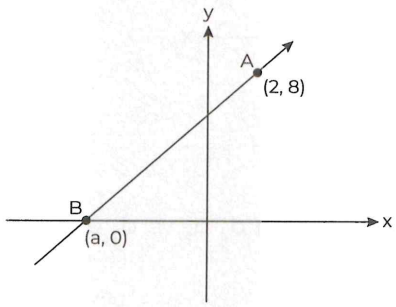
PUZA ACADEMY

4. **(2, –2) ve (–1, 4) noktalarından geçen doğrunun eğimi kaçtır?**

What is the slope of the line passing through (2, –2) and (–1, 4)

A) –3 B) –2 C) 2 D) 3 E) 4

5.



A ve B noktalarından geçen doğrunun eğimi 3 ise, a kaçtır?

In the graph, the slope of the line passing through the points A and B is 3. What is the value of a?

A) –1 B) $-\frac{2}{3}$ C) $-\frac{3}{2}$ D) $\frac{2}{3}$ E) $\frac{3}{2}$

6. **Analitik düzlemde A(0, –1), B(2, 0) ve C(k, 4) noktaları veriliyor. Bu noktaların üçü de aynı doğru üzerinde olduğuna göre, k kaçtır?**

On analytical plane, points A(0, –1), B(2, 0) and C(k, 4) are on the same line. What is the value of k?

A) 4 B) 6 C) 8 D) 10 E) 12

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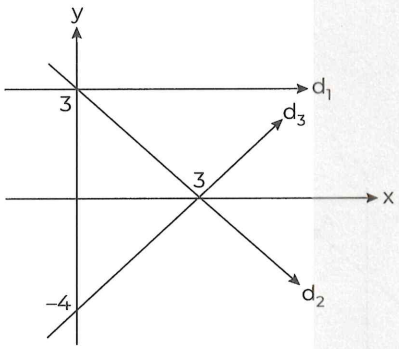
7. **Denklemi $(5k+2)x-y+1=0$ olan doğrunun eğimi -3 ise k kaçtır?**

The slope is -3 which line equation is $(5k+2)x-y+1=0$, what is the value of k?

A) -5 B) -4 C) -2 D) -1 E) 3

8.



Analitik düzlemde verilen d_1, d_2 ve d_3 doğrularının eğimleri m_1, m_2 ve m_3 tür.

Buna göre;

I. $m_1 = 0$

II. $m_2 = -1$

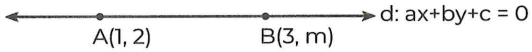
III. $m_3 = \frac{4}{3}$

ifadelerinden hangisi/hangileri doğrudur?

Which of following true?

A) I B) II C) I, III D) I, II E) I, II, III

9.



$m_d = m$

$\Rightarrow m_d = ?$

A) -2 B) -1 C) 1 D) 2 E) 3

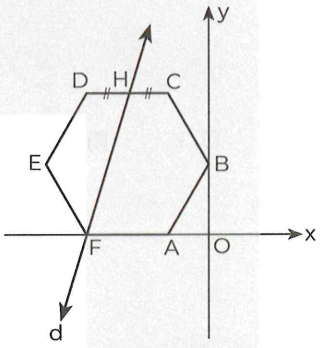
10. $d: 3x + ky - 5 = 0$

$m_d = 2$

$\Rightarrow k = ?$

A) $-\frac{3}{2}$ B) $-\frac{1}{2}$ C) $\frac{1}{2}$ D) 1 E) $\frac{3}{2}$

11.



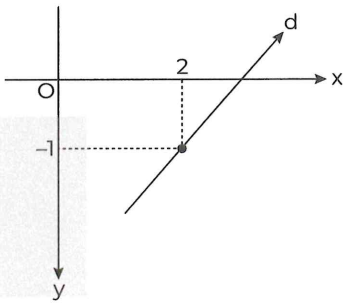
ABCDEF **düzgün altıgen** (regular hexagon)

$|DH| = |HC|$

$\Rightarrow m_d = ?$

A) $-2\sqrt{3}$ B) -2 C) $\sqrt{3}$ D) 2 E) $2\sqrt{3}$

12.



$d: 2x - 3y + k = 0$

$\Rightarrow k = ?$

A) -9 B) -7 C) -3 D) 1 E) 4

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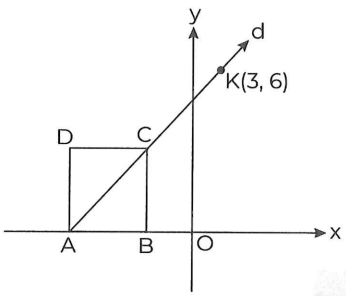
13.



d : ax + by + c = 0

ABCD **kare** (square)

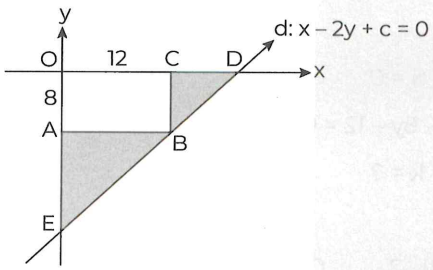
A, C, K **doğrusal** (linear) ⇒ d = ?

A) x – y + 3 = 0 B) 2x – y + 6 = 0

C) x + y – 8 = 0 D) x + y – 10 = 0

E) x – y + 4 = 0

14.



d : x – 2y + c = 0

ABCO **dikdörtgen** (rectangle)

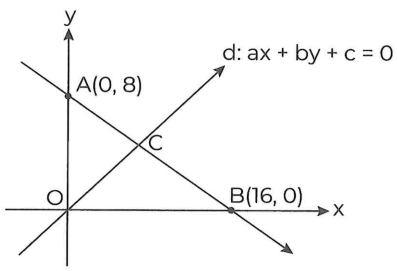
|OC| = 12 br, |OA| = 8 br

⇒ **Taralı bölgenin alanları toplamı kaç birimkare-dir?**

What is the value of sum of shaded areas?

A) 50 B) 60 C) 70 D) 80 E) 100

15.



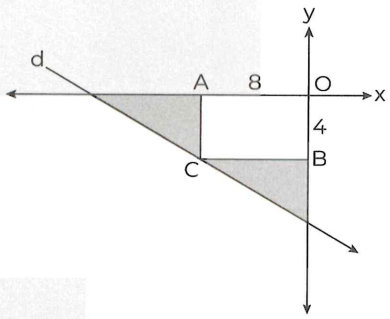
Analitik düzlemde (On analytical plane)

3|AC| = |CB| ⇒ d = ?

A) y – 3x = 0 B) 3x – 2y = 0 C) x – y = 0

D) x – 2y = 0 E) 2x – y = 0

16.



d : –2x – y + k = 0

AOBC **dikdörtgen** (rectangle)

|OB| = 4 br, |AO| = 8 br

⇒ **Taralı bölgenin alanları toplamı kaç br² dir?**

What is the value of sum of shaded area?

A) 32 B) 48 C) 54 D) 68 E) 100

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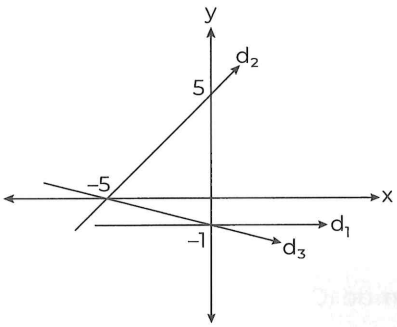
IRANINOVIN

17.



Analitik düzlemde verilen d_1, d_2 ve d_3 doğrularının eğimleri m_1, m_2 ve m_3 tür.

Buna göre;

I. $m_1 = 0$

II. $m_2 = -1$

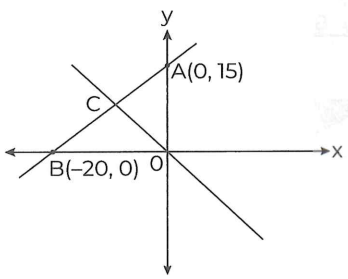
III. $m_3 = -5$

yukarıdaki ifadelerden hangisi/hangileri doğrudur?

Which of the above statements is/are correct?

A) I B) II C) III D) I, II E) I, III

18.



Analitik düzlemde (on analytical plane)

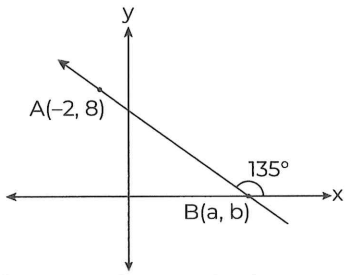
$3 \cdot |AC| = 2 \cdot |BC| \Rightarrow d = ?$

A) $8y + 9x = 0$ B) $8x + 9y - 64 = 0$

C) $4x - 3y + 64 = 0$ D) $9x - 8y + 15 = 0$

E) $9y - 8x = 0$

19.



Verilen grafiğe göre B noktasının koordinatları toplamı kaçtır?

In the graph, what is the sum of coordinate of B?

A) –2 B) 2 C) 4 D) 6 E) 8

20. $d_1 : 3x - 9y + 8 = 0$

$d_2 : (k + 4)x - 6y - 12 = 0$

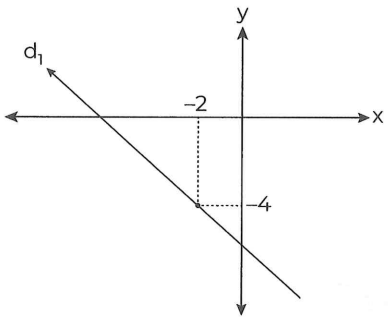
$m_1 = m_2 \Rightarrow k = ?$

A) –4 B) –2 C) –1 D) 2 E) 4

PUZA ACADEMY

IRANINOVIN

21.



$d_1 : 3x - 4y - k = 0$

$\Rightarrow k = ?$

A) 10 B) 12 C) 14 D) 16 E) 18

22. $d_1: (m-1)x + (n+1)y - 2 = 0$

$d_2: 2x - 3y + 6 = 0$

$d_1 = d_2$

$\Rightarrow m + n = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) $\frac{3}{2}$ E) 2

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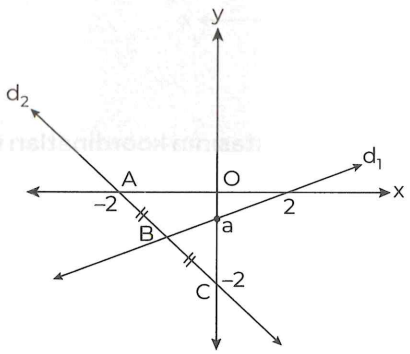
23. **Analitik düzlemde y = x, y = –x ve y = 6 doğrularının sınırladığı alan kaç birimkaredir?**

How many square units is the area bounded by lines a, b and c on the analytical plane?

A) 6 B) 12 C) 24 D) 36 E) 48

24.



Analitik koordinat düzleminde

On analytical coordinate plane

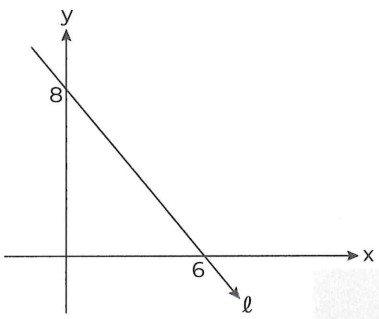
$|AB| = |BC|$

$\Rightarrow a = ?$

A) $-\frac{5}{6}$ B) $-\frac{2}{3}$ C) –1 D) $-\frac{5}{3}$ E) $-\frac{7}{3}$

IRANINOVIN

1.

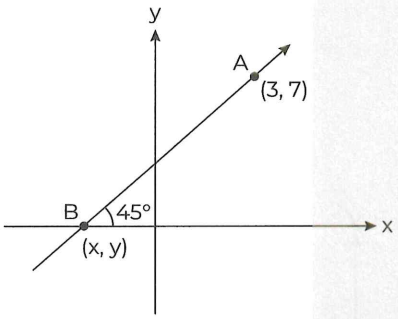


Grafiğe göre, ℓ doğrusunun eğimi kaçtır?

What is the slope of line ℓ?

A) $-\frac{4}{3}$ B) $-\frac{3}{4}$ C) $\frac{2}{3}$ D) $\frac{3}{4}$ E) $\frac{4}{3}$

2.



Verilen grafiğe göre B noktasının koordinatları toplamı kaçtır?

In the graph, what is the sum of coordinate of B?

A) –6 B) –5 C) –4 D) –3 E) –2

3. $d_1 : x - 2y + 5 = 0$

$d_2 : 2x + (k + 3)y + 4 = 0$

$m_1 = m_2$

$\Rightarrow$ k = ?

A) –11 B) –9 C) –7 D) –5 E) –3

4. **A(3, –4) ve B(6, –8) noktalarından geçen doğrunun eğimi kaçtır?**

Find the slope of the line passing through points A(3, –4) and B(6, –8)?

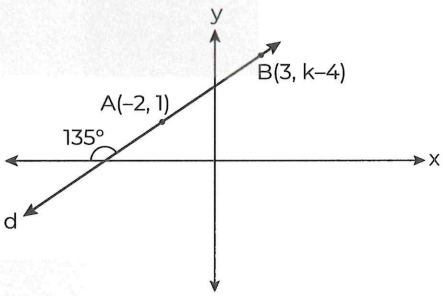
A) $-\frac{4}{3}$ B) $-\frac{3}{4}$ C) $\frac{1}{2}$ D) $\frac{3}{4}$ E) $\frac{4}{3}$

5. **Analitik düzlemde A(–4, k), B(2, 8) ve C(4, 6) noktaları veriliyor. Bu noktaların üçü de aynı doğru üzerinde olduğuna göre k kaçtır?**

If a line passes through A(–4, k), B(2, 8) and C(4, 6) then what is the value of k?

A) –2 B) 2 C) 4 D) 8 E) 14

6.



Analitik düzlemde A(–2, 1), B(3, k–4) noktaları aynı doğrunun üzerindedir. Doğrunun x ekseni ile negatif yönde yaptığı açı 135° ise k kaçtır?

Point A and B are on the same line. If the slope angle is 135° then what is the value of k?

A) 5 B) 7 C) 9 D) 10 E) 12

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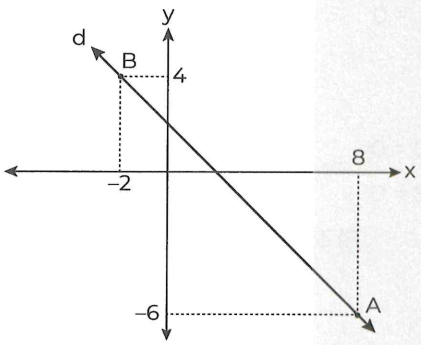
7. $d_1 : 6x + (2k-8)y + 12 = 0$

d_1 doğrusunun eğimi –3 olduğuna göre k kaçtır?

If the slope of line d_1 is –3 then what is the value of k?

A) 3 B) 4 C) 5 D) 6 E) 8

8.

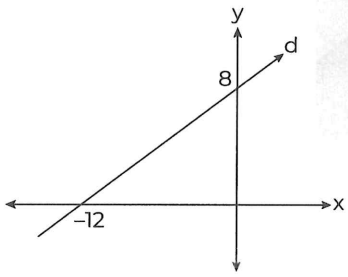


Koordinat sisteminde d doğrusunun eğimi kaçtır?

What is the slope of line d on analytic plane?

A) –2 B) –1 C) 2 D) 3 E) 4

9.

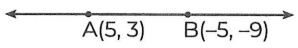


Grafiğe göre d doğrusunun eğimi kaçtır?

What is the slope of line d?

A) $-\frac{3}{2}$ B) $-\frac{2}{3}$ C) $\frac{4}{9}$ D) $\frac{2}{3}$ E) $\frac{3}{2}$

10.

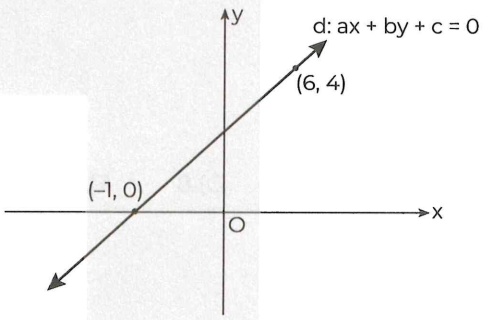


d: ax + by + c = 0

$\Rightarrow m_d = ?$

A) $-\frac{2}{5}$ B) $-\frac{3}{5}$ C) $-\frac{4}{5}$ D) $\frac{4}{5}$ E) $\frac{6}{5}$

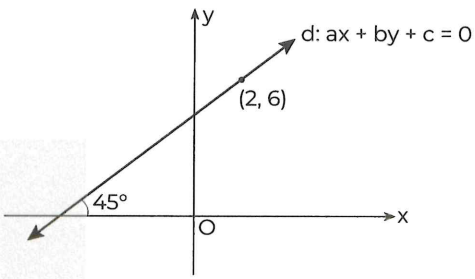
11.



$\Rightarrow m_d = ?$

A) $-\frac{4}{7}$ B) $-\frac{1}{2}$ C) $\frac{1}{2}$ D) $\frac{4}{7}$ E) 2

12.



$\Rightarrow d = ?$

A) x – y + 6 = 0 B) y – x + 4 = 0

C) y – x – 4 = 0 D) x + y – 4 = 0

E) x + y – 8 = 0

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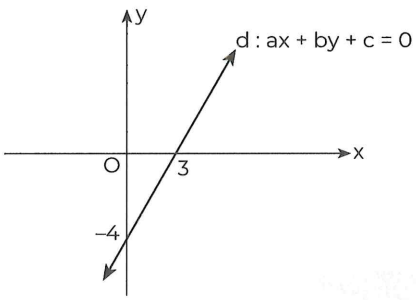
13.



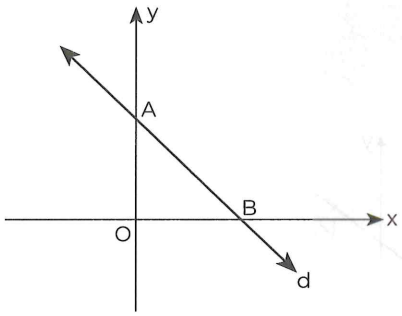
$a > 0$

$d : ax + by + c = 0$

$\Rightarrow c = ?$

A) –13 B) –12 C) 10 D) 8 E) 6

14.



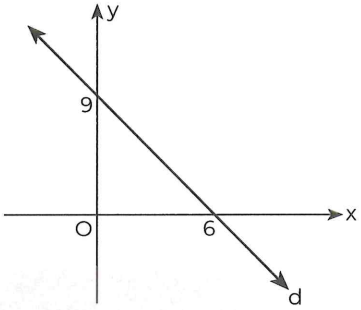
$d : 2x + 3y - 12 = 0$

$\Rightarrow |AB| = ?$

A) $\sqrt{13}$ B) $2\sqrt{13}$ C) $3\sqrt{13}$

D) $13\sqrt{2}$ E) $13\sqrt{3}$

15.



$d : ax + by + c = 0$

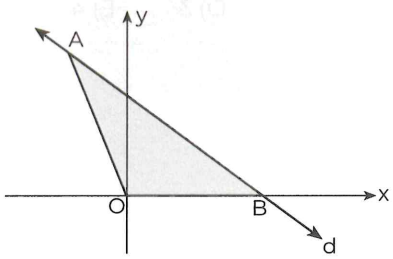
$\Rightarrow d = ?$

A) $3x - 2y - 18 = 0$ B) $3x + 2y - 18 = 0$

C) $2x - 3y - 18 = 0$ D) $2x + 3y + 15 = 0$

E) $3x + 2y - 15 = 0$

16.



$d : y = -3x - m$

$A(-1, 9) \Rightarrow$ **Alan** (Area)(AOB) = ?

A) 9 B) 18 C) 27 D) 20 E) 24

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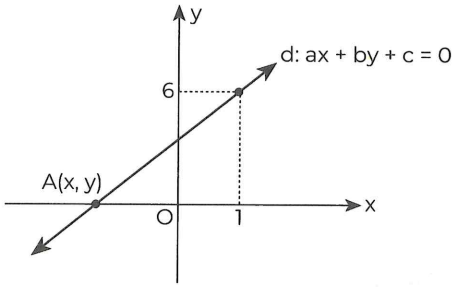
17.

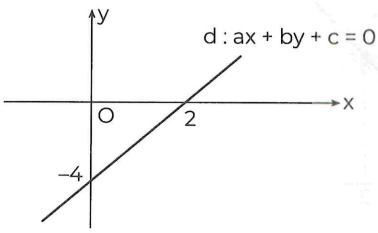


$m_d = 3$

$\Rightarrow A(x, y) = ?$

A) (–5, 0) B) (–4, 0) C) (–3, 0)
D) (–2, 0) E) (–1, 0)

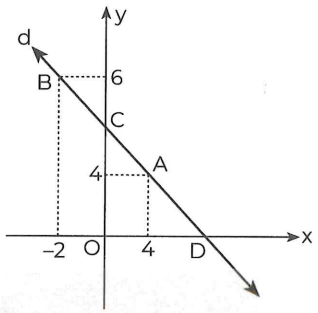
18.



$\Rightarrow m_d = ?$

A) –2 B) –1 C) $\frac{1}{2}$ D) 1 E) 2

19.

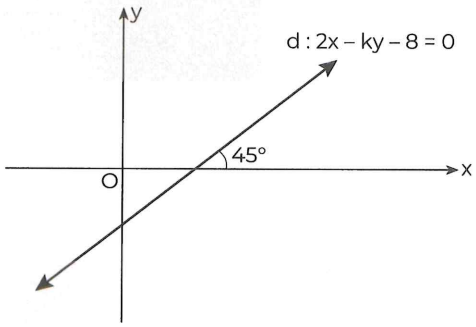


$d : ax + by + c = 0$

$\Rightarrow d = ?$

A) $y - 2x - 4 = 0$ B) $3y - x + 14 = 0$
C) $y + 3x - 4 = 0$ D) $3y + x - 8 = 0$
E) $3y + x - 16 = 0$

20.



$\Rightarrow k = ?$

A) –2 B) –1 C) 1 D) 2 E) 4

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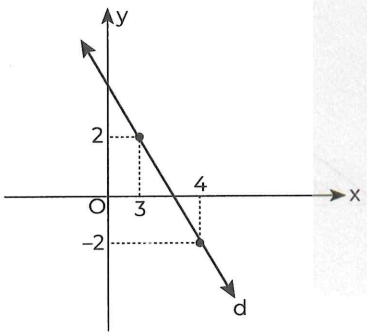
21. A(–2, 5) B(1, 4) d: ax + by + c = 0

$\Rightarrow m_d = ?$

A) –3 B) $-\frac{1}{3}$ C) $\frac{1}{4}$ D) $\frac{1}{3}$ E) 3

22.



d : ax + by + c = 0

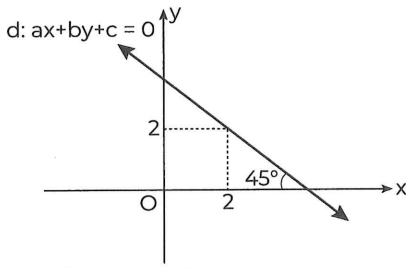
$\Rightarrow$ d = ?

A) y – 2x – 10 = 0 B) y – 2x + 10 = 0

C) y + 4x – 14 = 0 D) y + 10x – 4 = 0

E) y + 4x + 14 = 0

23.



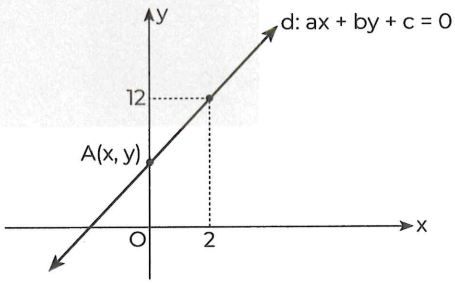
$\Rightarrow$ d = ?

A) x + y + 2 = 0 B) x + y + 4 = 0

C) x + y – 4 = 0 D) x – y – 2 = 0

E) x – y + 2 = 0

24.



$m_d = 3$

A(x, y)

$\Rightarrow$ y = ?

A) 9 B) 8 C) 7 D) 6 E) 5

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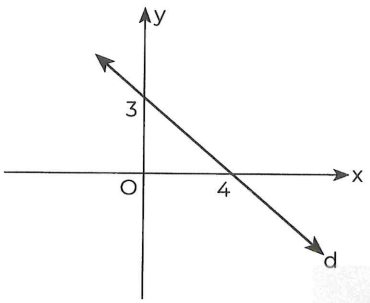
25.



d : ax + by + c = 0

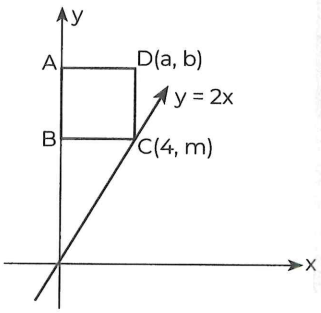
⇒ d = ?

A) 3x + 4y – 12 = 0 B) 3x – 4y – 12 = 0

C) 2x – 3y + 6 = 0 D) 2x + 3y – 6 = 0

E) 3x – 4y + 6 = 0

26.



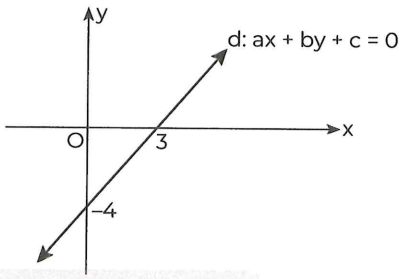
ABCD **kare** (square)

⇒ D(a, b) = ?

A) (3, 13) B) (4, 13) C) (3, 12)

D) (12, 4) E) (4, 12)

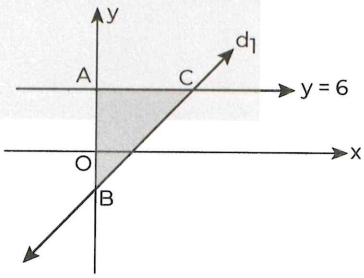
27.



⇒ m_d = ?

A) $-\frac{4}{3}$ B) –1 C) 1 D) $\frac{4}{3}$ E) 2

28.



d_1 : 3x – 4y – 12 = 0

y = 6

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 50 B) 51 C) 52 D) 53 E) 54

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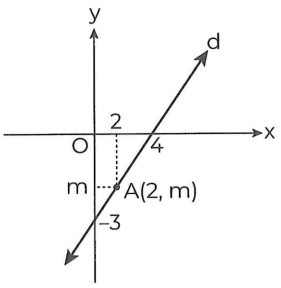
29.

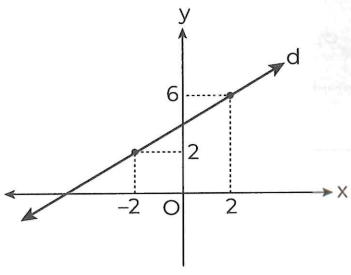


d : ax + by + c = 0

⇒ m = ?

A) $-\frac{1}{2}$ B) $-\frac{3}{2}$ C) $-\frac{11}{4}$ D) –3 E) –4

30.



d : ax + by + c = 0

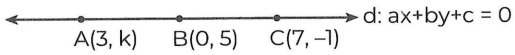
⇒ d = ?

A) 4x – 4y – 1 = 0 B) 4y + 4x + 1 = 0

C) y – x + 4 = 0 D) y + x + 4 = 0

E) y – x – 4 = 0

31.



A, B, C **doğrusal** (linear)

⇒ k = ?

A) 10 B) 9 C) $\frac{10}{3}$ D) $\frac{17}{7}$ E) $\frac{10}{7}$

32.



A, B **doğrusal** (linear)

$m_d = 2$

⇒ k = ?

A) 2 B) 3 C) 4 D) 5 E) 6

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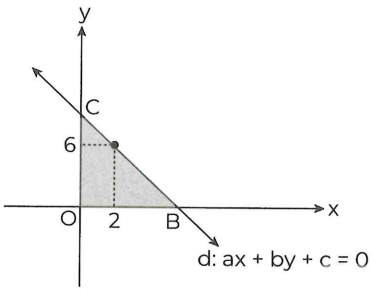
33.

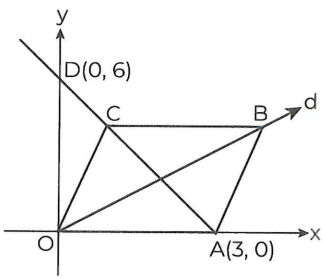


$m_d = -\frac{1}{2}$

⇒ **Alan** (Area)($\widehat{COB}$) = ?

A) 7 B) 12 C) 14 D) 42 E) 49

34.



COAB **eşkenar dörtgen** (rhombus)

d : ax + by + c = 0 ⇒ d = ?

A) y = 3x B) y = 2x C) y = x

D) $y = \frac{x}{2}$ E) $y = \frac{x}{3}$

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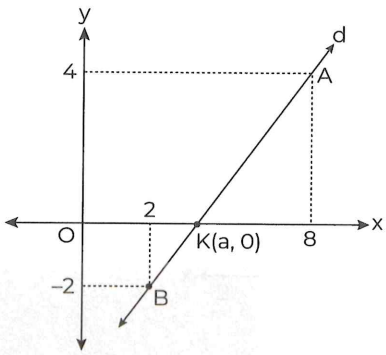
35.



Analitik koordinat düzleminde

On the analytical plane

A(8, 4), B(2, –2), K(a, 0)

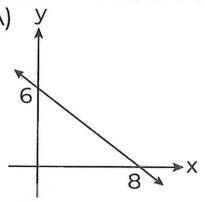
⇒ a = ?

A) 3 B) 4 C) 5 D) 6 E) 8

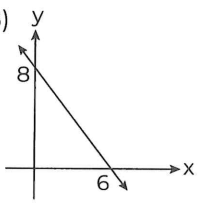
36. **d: 3x + 4y – 24 = 0 doğrusunun grafiği aşağıdakilerden hangisidir?**

Which is the graph of d: 3x + 4y – 24 = 0 line amongst the followings ones?

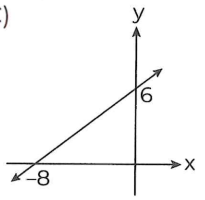
A)



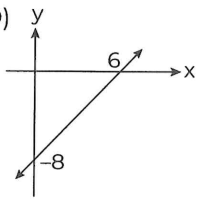
B)



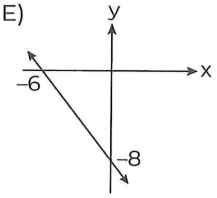
C)



D)

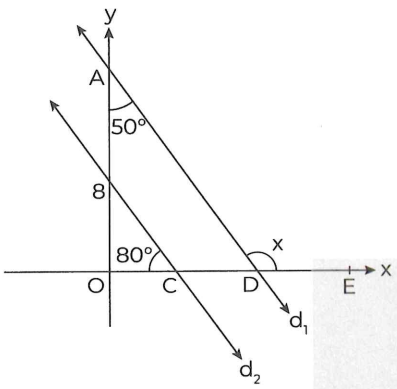


E)



IRANINOVIN

1.



$d_1 // d_2$

$m(\widehat{OAD}) = 50°$, $m(\widehat{OCB}) = 80°$

$m(\widehat{ADE}) = x \Rightarrow D(x, 0) = ?$

A) 100 B) 110 C) 120 D) 130 E) 150

2. $d_1 // d_2$

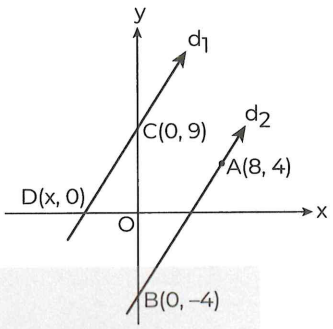
$d_1: 2x - 3y + 5 = 0$

$d_2: 3x - my + 9 = 0$

$\Rightarrow m = ?$

A) 6 B) $\frac{11}{2}$ C) 5 D) $\frac{9}{2}$ E) 4

3.

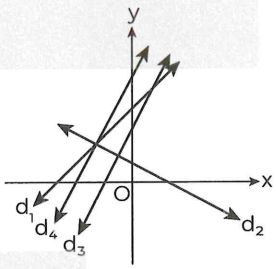


$d_1 // d_2$

$\Rightarrow D(x, 0) = ?$

A) (–5, 0) B) (–6, 0) C) (–7, 0)
D) (–8, 0) E) (–9, 0)

4.



$d_1: 2x - y + 8 = 0$ $d_2: x + y - 2 = 0$

$d_3: 3x - y + 6 = 0$ $d_4: ax + by + c = 0$

$d_3 // d_4$

$\Rightarrow d_4 = ?$

A) $2x - y + 10 = 0$ B) $x - y - 10 = 0$

C) $3x + y - 10 = 0$ D) $3x - y + 10 = 0$

E) $2x + y - 5 = 0$

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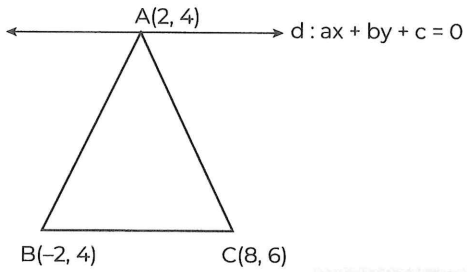
5.



d // [BC]

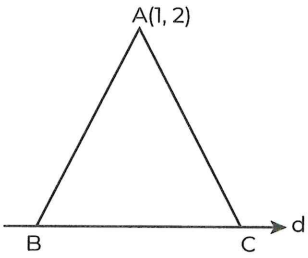
⇒ d = ?

A) $x + 5y - 22 = 0$ B) $2x - 5y + 22 = 0$

C) $5x - 2y + 18 = 0$ D) $5y - x - 18 = 0$

E) $y - 5x - 20 = 0$

6.



B, C ∈ d

ABC **eşkenar üçgen** (equalateral triangle)

d : 3x – 4y – 25 = 0

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) $8\sqrt{3}$ B) $9\sqrt{3}$ C) $12\sqrt{3}$ D) $13\sqrt{3}$ E) $15\sqrt{3}$

7. $A \in d_1$

$B \in d_2$

d_1: $2x + 3y + 6 = 0$

d_2: $(m - 2)x + 6y - 8 = 0$

$d_1 // d_2$

⇒ min(|AB|) = ?

A) $\frac{12}{\sqrt{13}}$ B) $\frac{11}{\sqrt{13}}$ C) $\frac{10}{\sqrt{13}}$

D) $\frac{9}{\sqrt{13}}$ E) $\frac{8}{\sqrt{13}}$

8. d_1: $ax + 4y - 6 = 0$

d_2: $2x - 3y + 8 = 0$

$d_1 \perp d_2$

⇒ a = ?

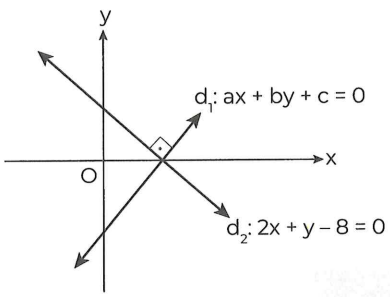
A) 2 B) 3 C) 4 D) 5 E) 6

PUZA ACADEMY

@galata1010

IRANINOVIN

9.



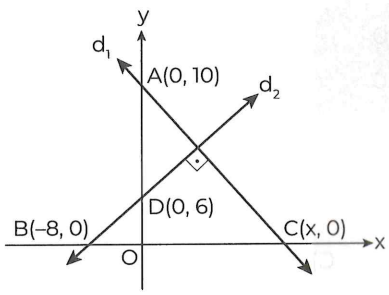
$d_1 \perp d_2 \Rightarrow d_1 = ?$

A) $2x - y - 4 = 0$ B) $2y + x + 4 = 0$

C) $x - 2y + 4 = 0$ D) $x + 2y + 4 = 0$

E) $2y - x + 4 = 0$

10.



$d_1 \perp d_2$

$\Rightarrow x = ?$

A) 7 B) $\frac{15}{2}$ C) 8 D) $\frac{17}{2}$ E) 9

11. d_1: $(a + 1)x - (a + 1)y + 2 = 0$

d_2: $ax + y + 6 = 0$

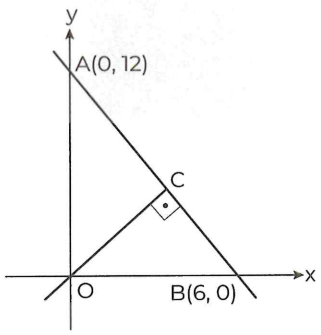
$d_1 \perp d_2$

$\Rightarrow a = ?$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1 D) $\frac{3}{2}$ E) 2

PUZA ACADEMY

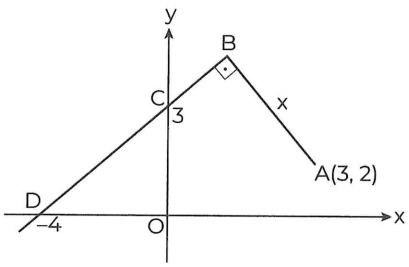
12.



$[OC] \perp [AB] \Rightarrow |OC| = ?$

A) $\frac{9}{\sqrt{5}}$ B) $\frac{10}{\sqrt{5}}$ C) $\frac{11}{\sqrt{5}}$ D) $\frac{12}{\sqrt{5}}$ E) $\frac{13}{\sqrt{5}}$

13.



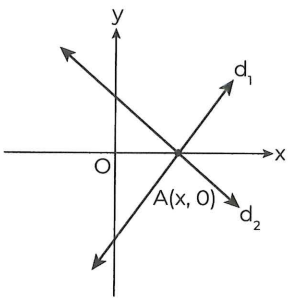
[DB] ⊥ [BA]

|AB| = x

⇒ x = ?

A) $\frac{5}{2}$ B) $\frac{13}{5}$ C) $\frac{14}{5}$ D) 3 E) $\frac{16}{5}$

14.



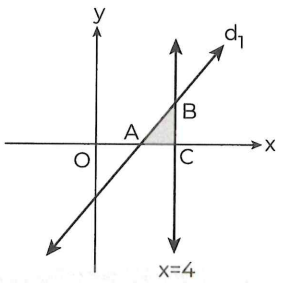
d_1: 2x – y – 12 = 0

d_2: x + y + n = 0

A(x, 0) ⇒ n = ?

A) –3 B) –4 C) –5 D) –6 E) –7

15.



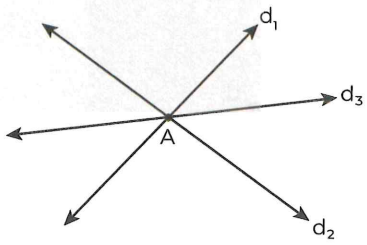
d_1: 2x – 3y – 6 = 0

x = 4

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) $\frac{2}{3}$ B) $\frac{1}{3}$ C) 3 D) $\frac{3}{2}$ E) $\frac{1}{2}$

16.



d_1: 3x – y + 4 = 0

d_2: x + y – 8 = 0

d_3: 2x – y + k = 0

$d_1 \cap d_2 \cap d_3 = A(x_0, y_0)$

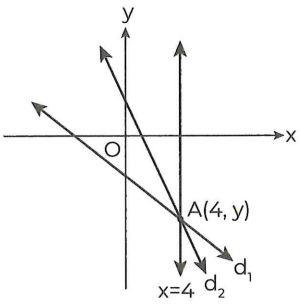
⇒ k = ?

A) 1 B) 2 C) $\frac{1}{2}$ D) 4 E) 5

PUZA ACADEMY

IRANINOVIN

17.



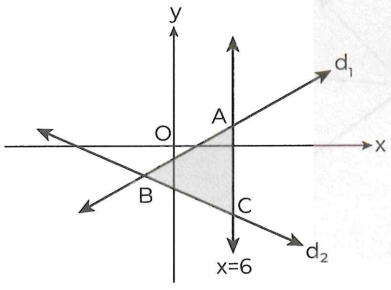
d_1: 4x + 3y – 10 = 0

d_2: ax + y – 2 = 0

A(4, y) ⇒ a = ?

A) –2 B) –1 C) 1 D) 2 E) 3

18.



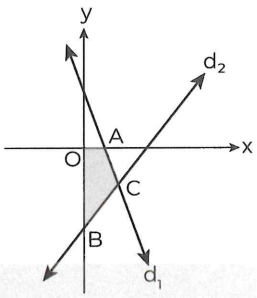
d_1: x – y – 4 = 0

d_2: x + y + 6 = 0

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 47 B) 48 C) 49 D) 50 E) 51

19.

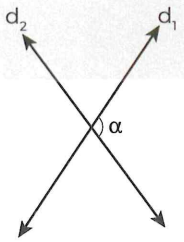


d_1: 3x + y – 18 = 0 d_2: x – y – 8 = 0

⇒ **Alan** (Area)(AOBC) = ?

A) 30 B) $\frac{61}{2}$ C) 31 D) 32 E) $\frac{65}{2}$

20.



d_1: x – 2ay + 12 = 0

d_2: 2x + 5y – 14 = 0

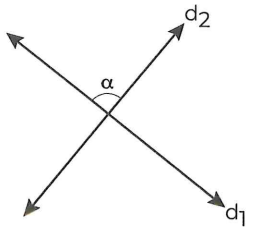
$\tan\alpha = \frac{1}{2}$

⇒ a = ?

A) $-\frac{4}{9}$ B) $\frac{4}{3}$ C) –2 D) $\frac{5}{2}$ E) 6

PUZA ACADEMY

21.



d_1: $ax - 2y + 4 = 0$

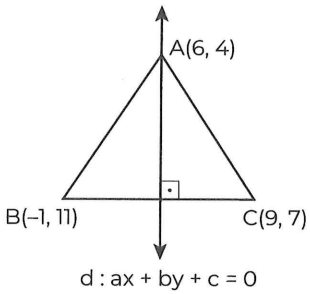
d_2: $4x - 2y + 2 = 0$

$\tan\alpha = \frac{3}{2}$

$\Rightarrow a = ?$

A) $-\frac{7}{2}$ B) -3 C) -2 D) 2 E) $\frac{7}{2}$

22.



d : ax + by + c = 0

$d \perp [BC]$

$\Rightarrow d = ?$

A) $5x - 2y + 22 = 0$ B) $2x - 5y - 22 = 0$

C) $3x + 5y + 11 = 0$ D) $2y - 5x + 22 = 0$

E) $2x + 5y + 11 = 0$

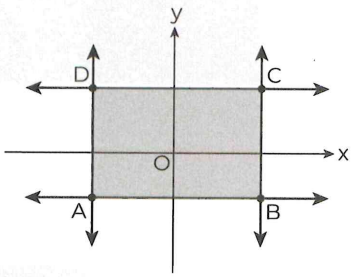
23. d : $5x + 12y + 15 = 0$

A(–2, 5)

$\Rightarrow |AD| = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

24.



$|x| \leq 2$

$|y - 2| \leq 3$

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 24 B) 28 C) 32 D) 36 E) 40

PUZA ACADEMY

IRANINOVIN

1. $d_1 \,//\, d_2$

$d_1: -2x + y + 8 = 0$

$d_2: 3x + ay = 0$

$\Rightarrow a = ?$

A) $-\frac{3}{2}$ B) -1 C) 0 D) 1 E) $\frac{3}{2}$

2. $d_1: ax + 2y + 7 = 0$

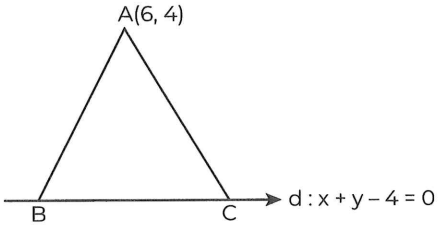
$d_2: (a-1)x + 4y + 12 = 0$

$d_1 \,//\, d_2 \Rightarrow a = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

PUZA ACADEMY

3.



ABC **üçgen** (triangle)

A(6, 4) B, C ∈ d

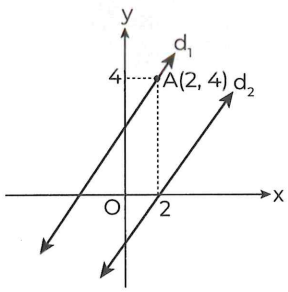
|BC| = 12 br

d : x + y – 4 = 0

$\Rightarrow$ **Alan** (Area)($\widehat{ABC}$) = ?

A) $18\sqrt{2}$ B) $16\sqrt{2}$ C) $14\sqrt{2}$ D) $12\sqrt{2}$ E) $10\sqrt{2}$

4.



$d_1: ax + by + c = 0$

$d_2: -x + 2y + 2 = 0$

$d_1 \,//\, d_2 \Rightarrow d_1 = ?$

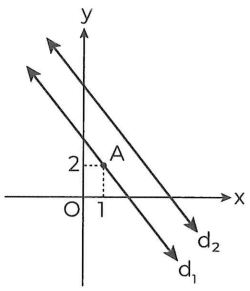
A) $2x + y - 10 = 0$ B) $x + y + 6 = 0$

C) $x + y - 6 = 0$ D) $x - 2y + 10 = 0$

E) $2y - x - 6 = 0$

IRANINOVIN

5.



A(1, 2) $d_1 // d_2$

$d_1 : 2x + 3y + 8 = 0$ $d_2 : ax + by + c = 0$

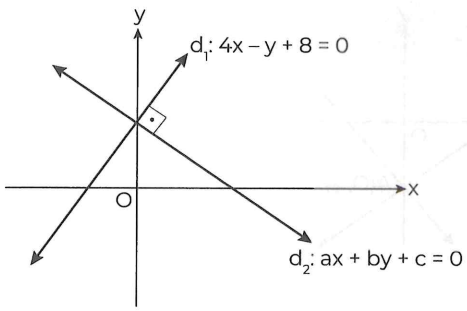
$\Rightarrow d_1 = ?$

A) $2x + 3y - 8 = 0$ B) $2x - 3y - 8 = 0$

C) $-2x + 3y - 8 = 0$ D) $-2x - 3y - 8 = 0$

E) $2x - 3y + 8 = 0$

6.



$d_1 \perp d_2$

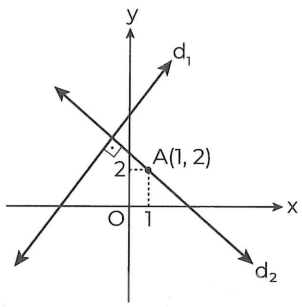
$\Rightarrow d_2 = ?$

A) $x + 2y - 16 = 0$ B) $x - 2y + 12 = 0$

C) $2x - y - 12 = 0$ D) $x - y + 32 = 0$

E) $4y + x - 32 = 0$

7.



A(1, 2)

$d_1 : 2x - y + 12 = 0$

$d_2 : ax + by + c = 0$

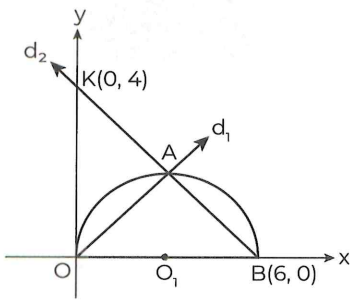
$\Rightarrow d_2 = ?$

A) $x + 2y - 5 = 0$ B) $x - 2y - 5 = 0$

C) $-x + 2y + 5 = 0$ D) $x + 2y + 5 = 0$

E) $2x - y - 5 = 0$

8.



O_1 merkezli yarım çember

A semi circle with a center O_1

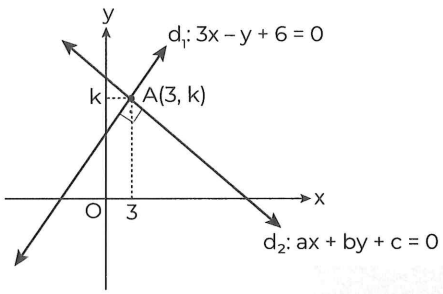
$\Rightarrow m_{d_2} = ?$

A) $-\frac{2}{3}$ B) $\frac{3}{2}$ C) $\frac{2}{3}$ D) $\frac{5}{2}$ E) $-\frac{3}{2}$

PUZA ACADEMY

IRANINOVIN

9.



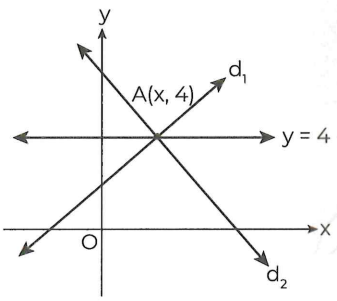
$d_1 \perp d_2 \Rightarrow d_2 = ?$

A) $3x + y - 48 = 0$ B) $2x - y + 48 = 0$

C) $x + 3y - 48 = 0$ D) $x - 3y + 48 = 0$

E) $x + 3y - 24 = 0$

10.



d_1: $2x - 3y + 8 = 0$

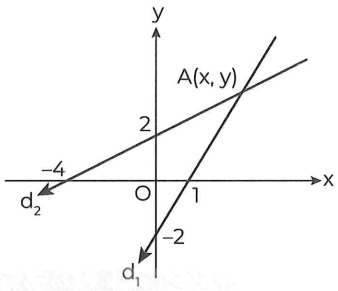
d_2: $x + my - 6 = 0$

A(x, 4)

$\Rightarrow m = ?$

A) –2 B) –1 C) $\frac{1}{2}$ D) 1 E) 2

11.

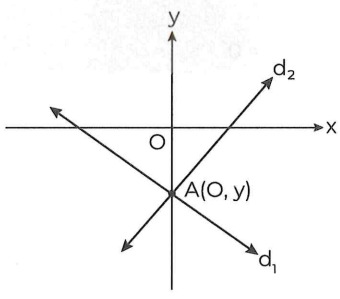


$\Rightarrow A(x, y) = ?$

A) $\left(\frac{8}{3}, \frac{1}{3}\right)$ B) $\left(\frac{4}{3}, \frac{5}{3}\right)$ C) $\left(\frac{8}{3}, \frac{10}{3}\right)$

D) $\left(\frac{4}{3}, \frac{10}{3}\right)$ E) $\left(\frac{8}{3}, \frac{4}{3}\right)$

12.



d_1: $3x + 4y + 12 = 0$

d_2: $2x + ay - 18 = 0$

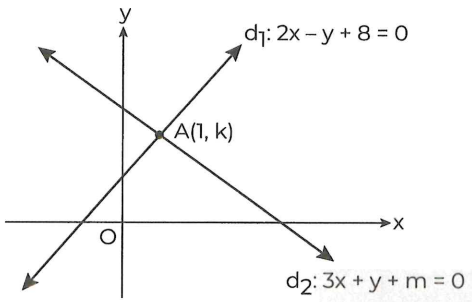
A(O, y)

$\Rightarrow a = ?$

A) –8 B) –6 C) –4 D) –2 E) 0

PUZA ACADEMY

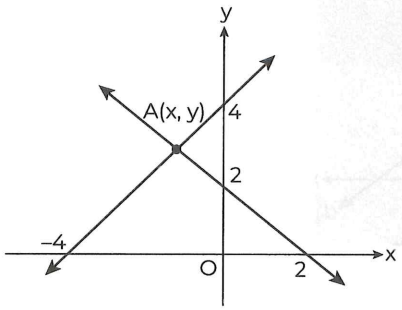
13.



⇒ m = ?

A) –12 B) –13 C) –14 D) –15 E) –17

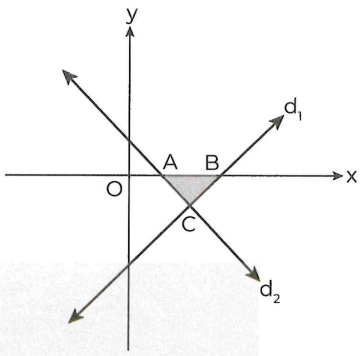
14.



⇒ A(x, y) = ?

A) (–1, 6) B) (–2, 3) C) (–3, 6)
D) (–1, 3) E) (–1, 6)

15.



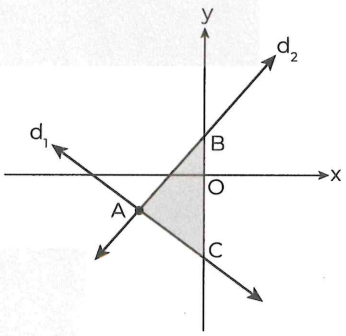
d_1: y – x + 6 = 0

d_2: y + x – 4 = 0

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 6 B) 4 C) 3 D) 2 E) 1

16.



d_1: 2x + y + 12 = 0

d_2: x – y + 3 = 0

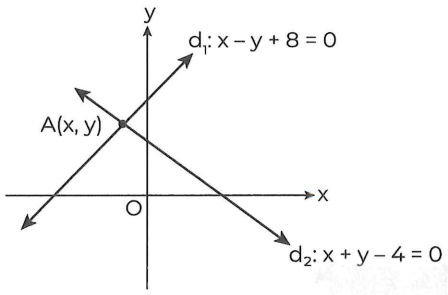
A(x, y) ⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 36 B) $\frac{73}{2}$ C) 37 D) $\frac{75}{2}$ E) 38

PUZA ACADEMY

IRANINOVIN

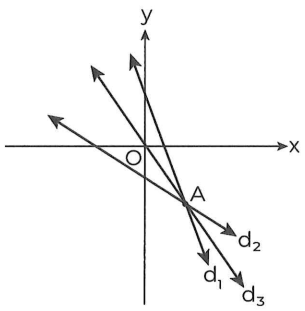
17.



⇒ A(x, y) = ?

A) (6, –2) B) (–2, 6) C) (–2, 4) D) (–3, 2) E) (–4, 2)

18.



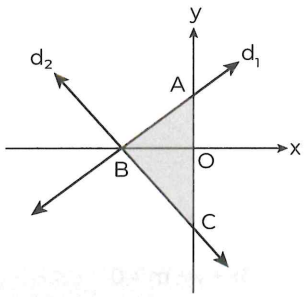
d_1 : 4x + 5y – 18 = 0

d_2 : 2x + 3y – 8 = 0

$d_1 \cap d_2 \cap d_3 = A \Rightarrow m_{d_3} = ?$

A) $\frac{7}{11}$ B) $\frac{11}{2}$ C) $\frac{7}{2}$ D) $\frac{2}{11}$ E) $-\frac{2}{7}$

19.



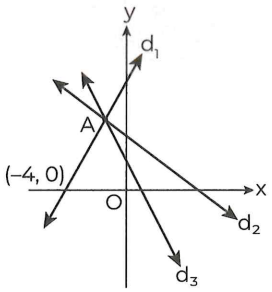
d_1: 6x – y + 12 = 0

d_2: x + y + 2 = 0

⇒ **Alan** (Area)($\widehat{ABC}$) = ?

A) 14 B) 28 C) 7 D) $\frac{7}{2}$ E) 12

20.



d_2: x + 2y – 12 = 0 d_3: 2x + y – 4 = 0

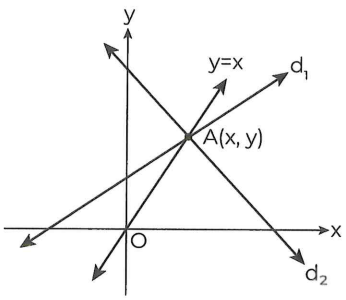
$d_1 \cap d_2 \cap d_3 = A$

$\Rightarrow m_{d_1} = ?$

A) $-\frac{4}{3}$ B) $\frac{5}{2}$ C) 5 D) $\frac{20}{3}$ E) $\frac{15}{2}$

PUZA ACADEMY

21.



$d_1: x - 2y + 12 = 0$ $d_2: ax + y - 24 = 0$

A(x, y)

$\Rightarrow a = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

22. $d_1: 2x - 3y + 6 = 0$

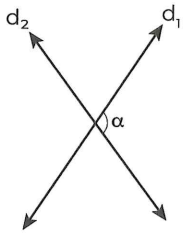
$d_2: -3x + 4y + 5 = 0$

$\Rightarrow$ Doğruları arasındaki dar açının tanjantı kaçtır?

What is the tangential of the acute angle between the lines?

A) $-\frac{3}{4}$ B) $-\frac{1}{6}$ C) $\frac{1}{2}$ D) $\frac{17}{6}$ E) $\frac{1}{18}$

23.



$0 < \alpha < \frac{\pi}{2}$

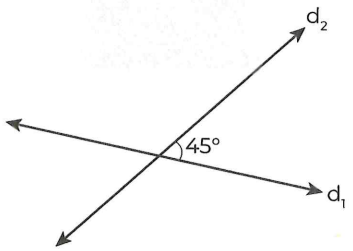
$d_1: 2x + y + 6 = 0$

$d_2: 3x + 4y - 2 = 0$

$\Rightarrow \tan\alpha = ?$

A) –2 B) $-\frac{3}{4}$ C) $-\frac{1}{2}$ D) $\frac{1}{2}$ E) 2

24.



$d_1: mx - 4y + 6 = 0$

$d_2: 2x - y + 4 = 0$

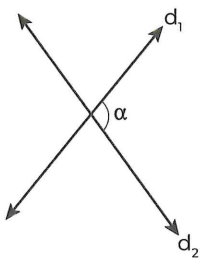
$\alpha = 45° \Rightarrow m = ?$

A) –12 B) –10 C) –9 D) –8 E) –7

PUZA ACADEMY

IRANINOVIN

25.



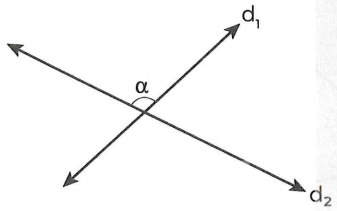
$d_1: 2x - y + 6 = 0$

$d_2: x + y + 5 = 0$

$\Rightarrow \tan\alpha = ?$

A) -3 B) $-\frac{3}{2}$ C) $\frac{1}{5}$ D) $\frac{3}{5}$ E) 2

26.



$\frac{\pi}{2} < \alpha < \pi$

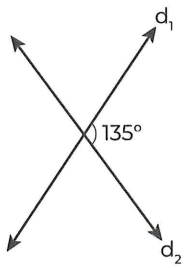
$d_1: \sqrt{3}x - y = 0$

$d_2: x + y - 5 = 0$

$\Rightarrow \alpha = ?$

A) 95 B) 100 C) 105 D) 120 E) 125

27.



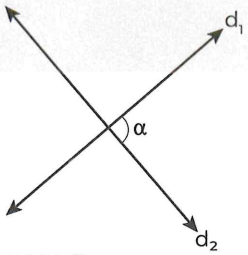
$d_1: ax + 2y - 8 = 0$

$d_2: x - 3y + 4 = 0$

$\Rightarrow a = ?$

A) -2 B) -1 C) 0 D) 1 E) 2

28.



$d_1: x - y - 2 = 0$

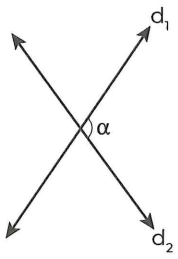
$d_2: x + y + 8 = 0$

$\Rightarrow \alpha = ?$

A) 60 B) 70 C) 80 D) 90 E) 100

PUZA ACADEMY

29.



$d_1: 3x - 4y + 5 = 0$

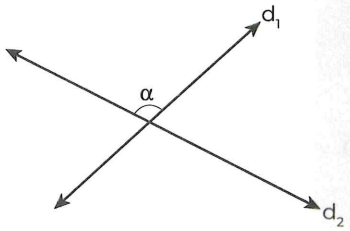
$d_2: 6y - kx - 4 = 0$

$\tan\alpha = \frac{2}{3}$

$\Rightarrow k = ?$

A) $\frac{3}{4}$ B) $\frac{1}{3}$ C) $\frac{13}{4}$ D) $\frac{16}{5}$ E) 17

30.



$\frac{\pi}{2} < \alpha < \pi$

$d_1: \sqrt{3}x - y - 8 = 0$

$d_2: x - y - 4 = 0$

$\Rightarrow \alpha = ?$

A) 100 B) 105 C) 145 D) 165 E) 170

31. $d_1: 8x - 15y + 17 = 0$

$d_2: 6x + 10y + 8 = 0$

Doğruları arasındaki dar açının tanjantı kaçtır?

What is the tangential of the acute angle between the lines?

A) $\frac{5}{3}$ B) $\frac{3}{5}$ C) $\frac{8}{15}$ D) $-\frac{3}{5}$ E) $-\frac{5}{3}$

32. $d: 3x - 4y + 8 = 0$

$A(1, 5)$

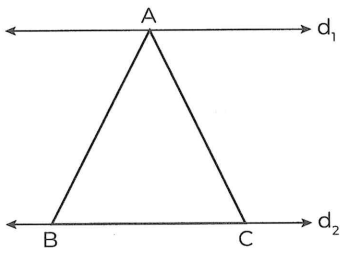
$\Rightarrow |Ad| = ?$

A) 1,8 B) 1,4 C) 1,2 D) 0,8 E) 0,4

PUZA ACADEMY

IRANINOVIN

33.



$A \in d_1$

$B, C \in d_2$

d_1: $4x - 3y - 12 = 0$

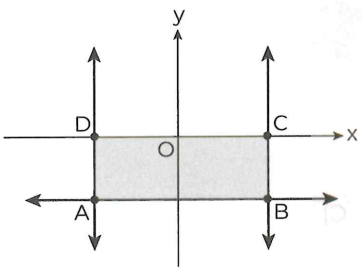
d_2: $4x - 3y + 18 = 0$

ABC **eşkenar üçgen** (equilateral triangle)

$\Rightarrow$ **Alan** (Area)$(\widehat{ABC}) = ?$

A) $6\sqrt{3}$ B) $8\sqrt{3}$ C) $10\sqrt{3}$ D) $12\sqrt{3}$ E) $14\sqrt{3}$

34.



$-2 \le x \le 6$

$-3 \le y \le 0$

$\Rightarrow$ **Alan** (Area)(ABCD) = ?

A) 8 B) 14 C) 16 D) 18 E) 24

35. $A \in d_1$

$B \in d_2$

d_1: $2x - 3y - 3 = 0$

d_2: $2x - 3y - 16 = 0$

$\Rightarrow \min(|AB|) = ?$

A) $2\sqrt{2}$ B) 3 C) $\sqrt{10}$ D) $2\sqrt{3}$ E) $\sqrt{13}$

36. $A \in d_1$

$B \in d_2$

d_1: $4x - 3y + 12 = 0$

d_2: $-8x + 6y + 24 = 0$

$\Rightarrow \min(|AB|) = ?$

A) $\frac{24}{9}$ B) $\frac{24}{7}$ C) $\frac{24}{5}$ D) 8 E) 24

PUZA ACADEMY

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ANALYTICAL COORDINATE SYSTEM

ANALİTİK KOORDİNAT SİSTEMİ

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
B	C	A	D	C	C	B	D	D	E	A	D

13	14	15	16	17	18	19	20	21	22	23	24
B	C	A	D	B	A	A	A	C	B	E	C

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
C	E	C	B	C	E	D	E	D	A	D	E

13	14	15	16	17	18	19	20	21	22	23	24
A	C	B	D	A	D	B	E	D	C	D	C

25	26	27	28	29	30	31	32	33	34	35	36
A	C	C	C	B	C	C	C	E	B	C	C

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	C	E	B	B	D	D	E	A	A	E	B

13	14	15	16	17	18	19	20	21	22	23	24
A	E	B	D	A	A	D	B	A	A	D	B

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
A	C	C	A	E	D	C	A	D	E	D	C

13	14	15	16	17	18	19	20	21	22	23	24
B	B	B	A	E	E	E	D	B	E	C	D

25	26	27	28	29	30	31	32	33	34	35	36
A	E	D	E	B	E	D	C	E	D	B	A

IRANINOVIN

ANALYTICAL COORDINATE SYSTEM

ANALİTİK KOORDİNAT SİSTEMİ

TEST 3A

1	2	3	4	5	6	7	8	9	10	11	12
E	D	E	D	D	C	C	E	E	B	C	D

13	14	15	16	17	18	19	20	21	22	23	24
B	D	B	E	C	C	B	E	A	D	B	A

TEST 3B

1	2	3	4	5	6	7	8	9	10	11	12
A	B	A	E	A	E	A	E	C	D	C	B

13	14	15	16	17	18	19	20	21	22	23	24
B	D	E	D	B	E	A	B	A	D	D	A

25	26	27	28	29	30	31	32	33	34	35	36
A	C	D	D	E	D	A	A	D	E	E	C

IRANINOVIN

NOTES:

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NOTES:

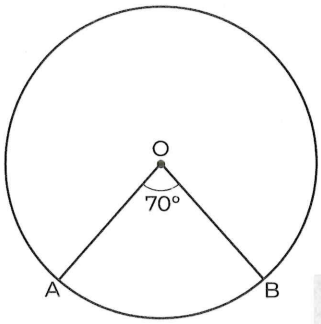
ANGLE IN CIRCLE

ÇEMBERDE AÇI

CHAPTER | BÖLÜM 10

IRANINOVIN

1.

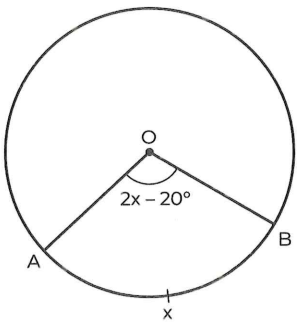


O merkezli çember (A circle with a center O)

$m(\widehat{AOB}) = 70° \Rightarrow (\widehat{AB}) = ?$

A) 45 B) 60 C) 70 D) 100 E) 140

2.



O merkezli çember

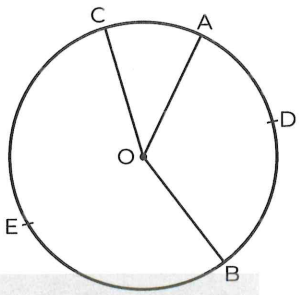
O, is the center of the circle

$m(\widehat{AOB}) = 2x - 20°$, $m(\widehat{AxB}) = x + 30°$

$\Rightarrow x = ?$

A) 40 B) 45 C) 50 D) 55 E) 60

3.



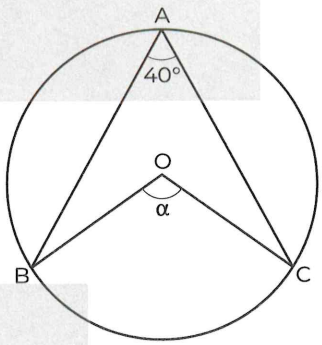
O, merkezli çember (O, is the center of circle)

$|\widehat{ADB}| = 3x - 36°$, $|\widehat{CEB}| = 5x + 24°$

$m(\widehat{AOC}) = x + 12° \Rightarrow m(\widehat{AOB}) = ?$

A) 40° B) 64° C) 68° D) 84° E) 128°

4.



$m(\widehat{BAC}) = 40°$, $m(\widehat{BOC}) = \alpha \Rightarrow \alpha = ?$

A) 40 B) 60 C) 80 D) 100 E) 120

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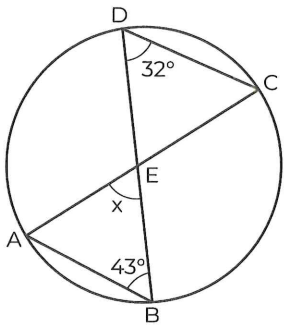
PUZA ACADEMY

5.

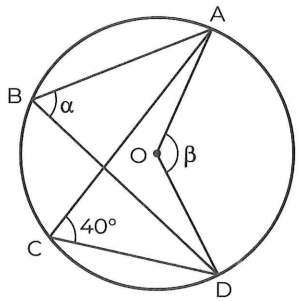


$m(\widehat{BDC}) = 32°$, $m(\widehat{DBA}) = 43°$, $m(\widehat{AEB}) = x$

$\Rightarrow x = ?$

A) 95 B) 100 C) 105 D) 110 E) 115

6.



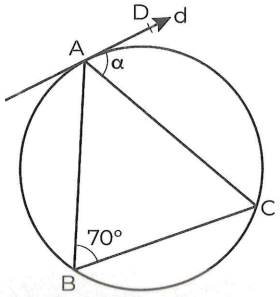
O, merkezli çember (O, is the center of circle)

$m(\widehat{ACD}) = 40°$, $m(\widehat{ABD}) = \alpha$, $m(\widehat{AOD}) = \beta$

$\Rightarrow \beta - \alpha = ?$

A) 20 B) 30 C) 40 D) 60 E) 80

7.



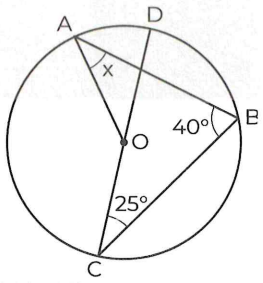
d doğrusu A noktasında çembere teğettir.

Line d is tangent the circle on point A.

$m(\widehat{ABC}) = 70°$, $m(\widehat{DAC}) = \alpha \Rightarrow \alpha = ?$

A) 80 B) 75 C) 70 D) 65 E) 60

8.



O merkezli çember

O, is the center of the circle

[DC] çap (diameter)

$m(\widehat{ABC}) = 40°$, $m(\widehat{BCD}) = 25°$, $m(\widehat{BAO}) = x$

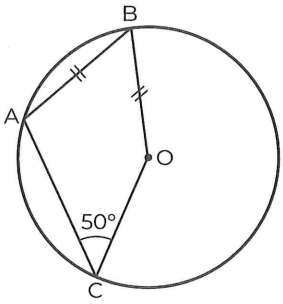
$\Rightarrow x = ?$

A) 15 B) 20 C) 25 D) 30 E) 35

PUZA ACADEMY

IRANINOVIN

9.



O, merkezli çember (O, is the center of circle)

$|AB| = |BO|$, $m(\widehat{OCA}) = 50°$

$\Rightarrow m(\widehat{BAC}) = ?$

A) 80 B) 90 C) 100 D) 110 E) 120

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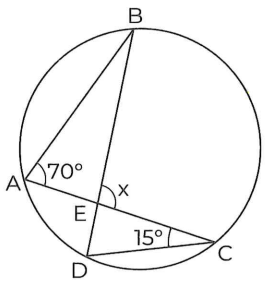
10.

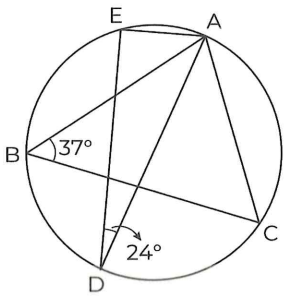


$m(\widehat{BAC}) = 70°$, $m(\widehat{ACD}) = 15°$, $m(\widehat{BEC}) = x$

$\Rightarrow x = ?$

A) 80 B) 85 C) 90 D) 95 E) 100

11.



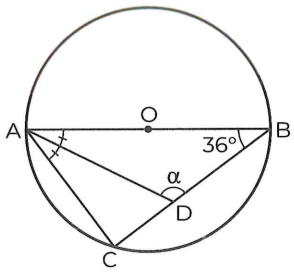
$m(\widehat{ABC}) = 37°$, $m(\widehat{EDA}) = 24°$

$\Rightarrow m(\widehat{EAC}) = ?$

A) 108 B) 112 C) 114 D) 115 E) 119

PUZA ACADEMY

12.



O, merkezli çember (O, is the center of circle)

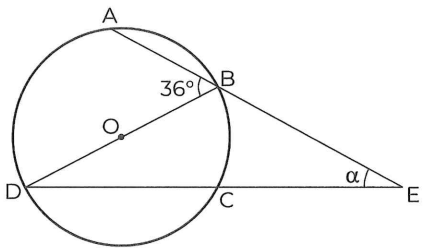
[AB] **çap** (diameter)

$m(\widehat{CAD}) = m(\widehat{DAB})$, $m(\widehat{ABC}) = 36°$

$m(\widehat{ADB}) = \alpha \Rightarrow \alpha = ?$

A) 107 B) 112 C) 117 D) 120 E) 127

13.



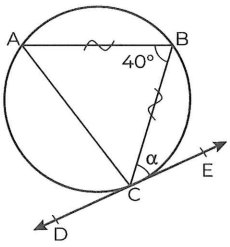
O, merkezli çember (O, is the center of circle)

$|DC| = |CE|$, $m(\widehat{ABD}) = 36°$, $m(\widehat{AED}) = \alpha$

$\Rightarrow \alpha = ?$

A) 12 B) 16 C) 18 D) 22 E) 24

14.



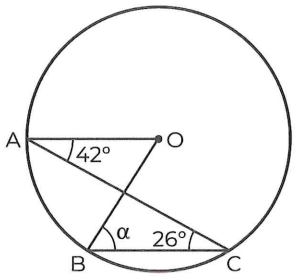
DE **teğet doğrusu** (tangent line)

$|AB| = |BC|$, $m(\widehat{ABC}) = 40°$, $m(\widehat{BCE}) = \alpha$

$\Rightarrow \alpha = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

15.



O, merkezli çember (O, is the center of circle)

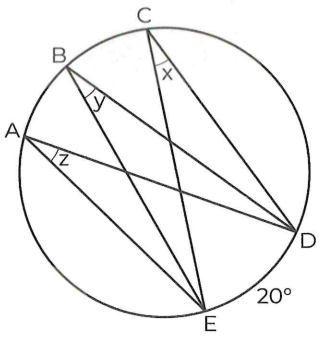
$m(\widehat{ACB}) = 26°$, $m(\widehat{OAC}) = 42°$, $m(\widehat{OBC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 54 B) 60 C) 62 D) 68 E) 72

PUZA ACADEMY

16.



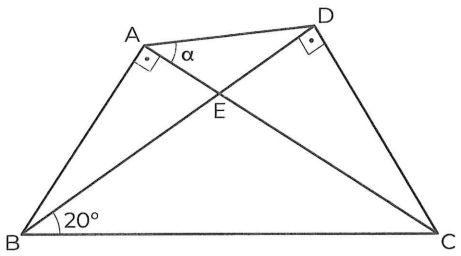
$m(\widehat{DE}) = 20°$, $m(\widehat{DCE}) = x$, $m(\widehat{DBE}) = y$

$m(\widehat{DAE}) = z \Rightarrow x + y + z = ?$

A) 30 B) 40 C) 50 D) 60 E) 120

IRANINOVIN

17.

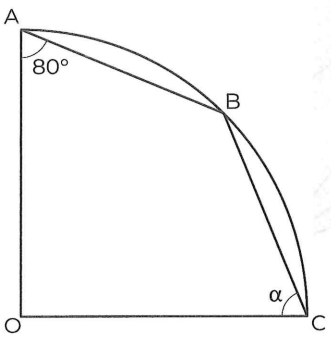


[BA] ⊥ [AC], [BD] ⊥ [DC], $m(\widehat{DBC}) = 20°$

$m(\widehat{DAC}) = \alpha \Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 50

18.



O merkezli çeyrek çember

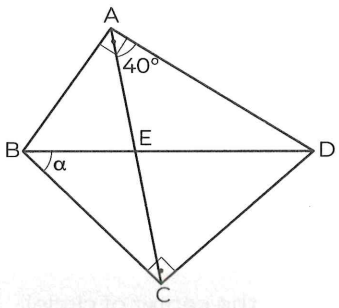
A quarter circle with a center O

[OA] ⊥ [OC], $m(\widehat{OAB}) = 80°$, $m(\widehat{BCO}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 55 C) 60 D) 70 E) 80

19.



ABCD kirişler dörtgeni

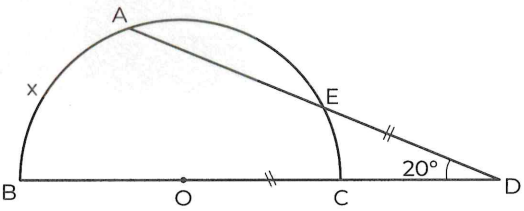
ABCD inscribed quadrilateral

[BA] ⊥ [AD], [BC] ⊥ [DC], $m(\widehat{DAC}) = 40°$

$m(\widehat{CBD}) = \alpha \Rightarrow \alpha = ?$

A) 70 B) 50 C) 40 D) 30 E) 20

20.



O merkezli yarım çember

A semi circle with a center O

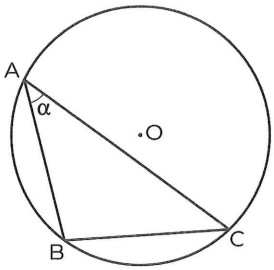
$|ED| = |OC|$, $m(\widehat{EDB}) = 20°$, $m(\widehat{AB}) = x$

$\Rightarrow x = ?$

A) 80 B) 70 C) 60 D) 50 E) 40

PUZA ACADEMY

21.



O merkezli çemberin yarıçapı r

The radius of the circle with the center of O is "r".

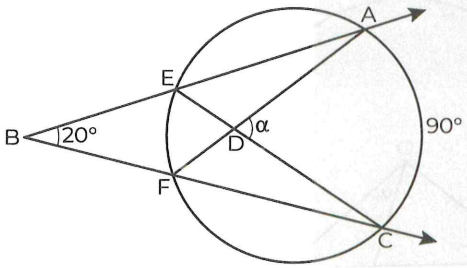
$|BC| = r$, $m(\widehat{BAC}) = \alpha \Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 30 E) 40

@galata1010

PUZA ACADEMY

22.

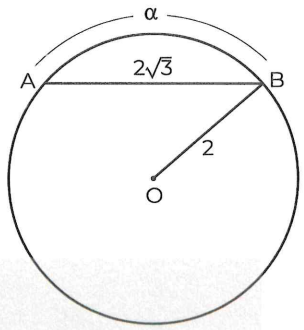


$m(\widehat{ABC}) = 20°$, $m(\widehat{AC}) = 90°$, $m(\widehat{ADC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 55 C) 60 D) 70 E) 80

23.

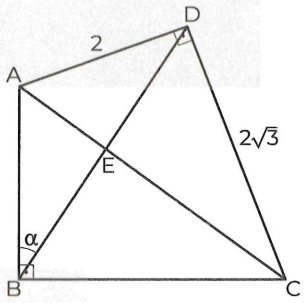


O merkezli çember (A circle with a center O)

$|AB| = 2\sqrt{3}$ br, $|OB| = 2$ br, $m(\widehat{AB}) = \alpha \Rightarrow \alpha = ?$

A) 30 B) 45 C) 60 D) 90 E) 120

24.



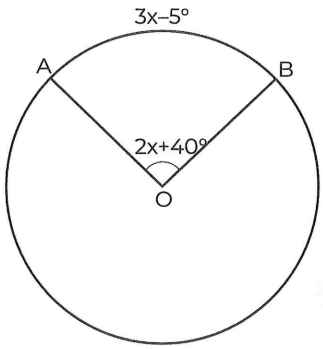
$[AD] \perp [DC]$, $[AB] \perp [BC]$, $|AD| = 2$ br

$|DC| = 2\sqrt{3}$ br, $m(\widehat{ABD}) = \alpha \Rightarrow \alpha = ?$

A) 30 B) 35 C) 40 D) 45 E) 60

IRANINOVIN

1.

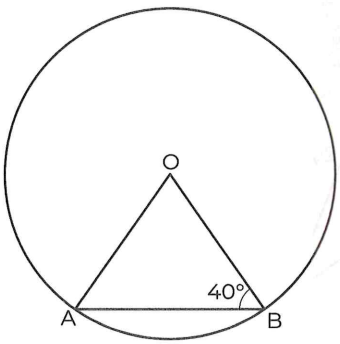


O merkezli çember (A circle with a center O)

$m(\widehat{BOA}) = 2x + 40°$, $m(\widehat{AB}) = 3x - 5° \Rightarrow x = ?$

A) 25 B) 30 C) 35 D) 40 E) 45

2.

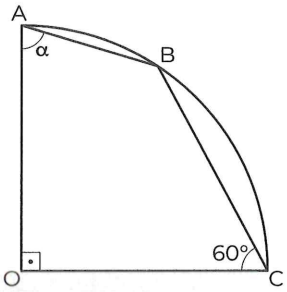


O merkezli çember (A circle with a center O)

$m(\widehat{OBA}) = 40° \Rightarrow m(\widehat{AB}) = ?$

A) 60 B) 70 C) 80 D) 90 E) 100

3.



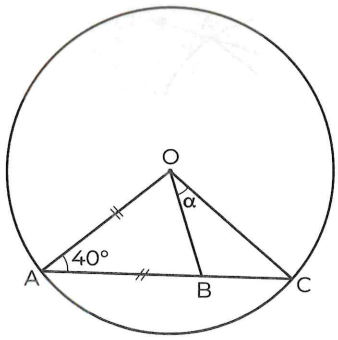
O merkezli çeyrek çember

A quarter circle with a center O

$m(\widehat{BCO}) = 60°$, $m(\widehat{BAO}) = \alpha \Rightarrow \alpha = ?$

A) 55 B) 60 C) 65 D) 70 E) 75

4.



O merkezli çember (A circle with a center O)

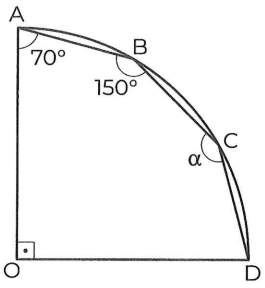
$|OA| = |AB|$, $m(\widehat{OAC}) = 40°$, $m(\widehat{BOC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 40 C) 35 D) 30 E) 25

PUZA ACADEMY

5.



O merkezli çeyrek çember

A quarter circle with a center O

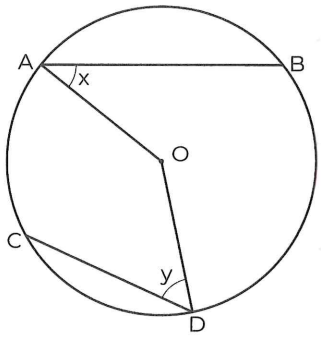
$[AO] \perp [OD]$, $m(\widehat{OAB}) = 70°$, $m(\widehat{ABC}) = 150°$

$m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$

A) 160 B) 155 C) 150 D) 145 E) 140

@galata1010

6.



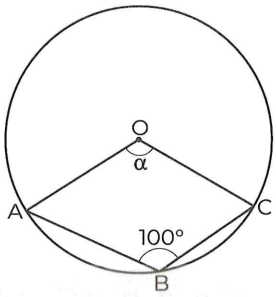
O merkezli çember (A circle with a center O)

$m(\widehat{AB}) + m(\widehat{CD}) = 120°$, $m(\widehat{BAO}) = x$

$m(\widehat{ODC}) = y \Rightarrow x + y = ?$

A) 140 B) 130 C) 120 D) 110 E) 100

7.

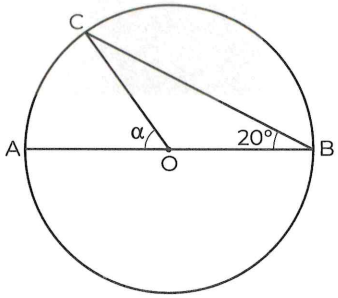


O merkezli çember (A circle with a center O)

$m(\widehat{ABC}) = 100°$, $m(\widehat{AOC}) = \alpha \Rightarrow \alpha = ?$

A) 160 B) 120 C) 80 D) 60 E) 40

8.



O merkezli çember (A circle with a center O)

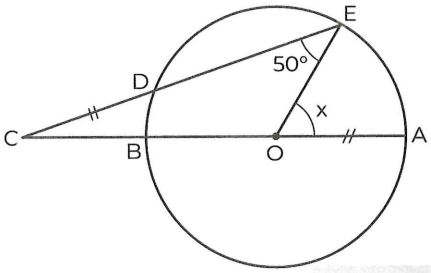
$m(\widehat{CBA}) = 20°$, $m(\widehat{COA}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

IRANINOVIN

9.



O merkezli çember

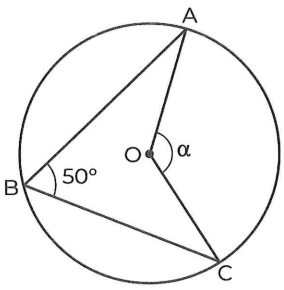
O, is the center of the circle

$|CD| = |OA|$, $m(\widehat{CEO}) = 50°$, $m(\widehat{EOA}) = x$

$\Rightarrow x = ?$

A) 35 B) 40 C) 50 D) 60 E) 75

10.



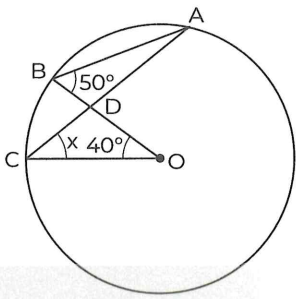
O merkezli çember

O, is the center of the circle

$m(\widehat{ABC}) = 50°$, $m(\widehat{AOC}) = \alpha \Rightarrow \alpha = ?$

A) 100 B) 110 C) 120 D) 130 E) 140

11.



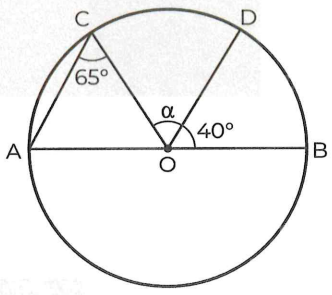
O merkezli çember

O, is the center of the circle

$m(\widehat{ABO}) = 50°$, $m(\widehat{BOC}) = 40°$, $m(\widehat{ACO}) = x \Rightarrow x = ?$

A) 25 B) 30 C) 35 D) 40 E) 50

12.



O, merkezli çember (O, is the center of circle)

[AB] **çap** (diameter)

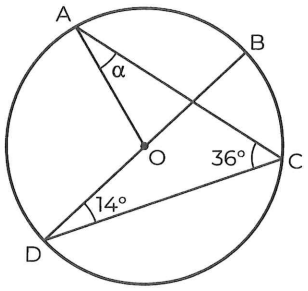
$m(\widehat{DOB}) = 40°$, $m(\widehat{ACO}) = 65°$, $m(\widehat{COD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 70 B) 75 C) 80 D) 85 E) 90

PUZA ACADEMY

13.



O, merkezli çember (O, is the center of circle)

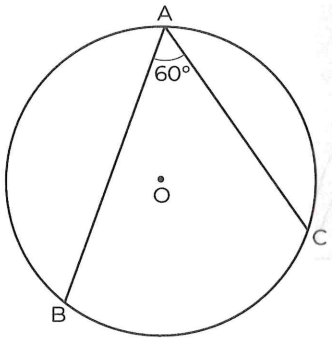
[BD] **çap** (diameter),

$m(\widehat{BDC}) = 14°$, $m(\widehat{ACD}) = 36°$, $m(\widehat{OAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 18 B) 20 C) 22 D) 24 E) 36

14.

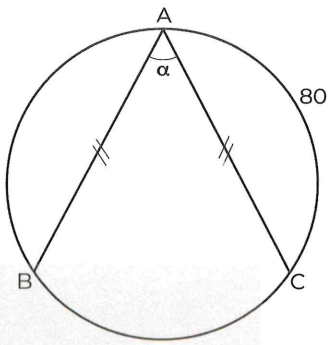


O merkezli çember (A circle with a center O)

$m(\widehat{BAC}) = 60° \Rightarrow m(\widehat{BC}) = ?$

A) 150 B) 140 C) 130 D) 120 E) 110

15.

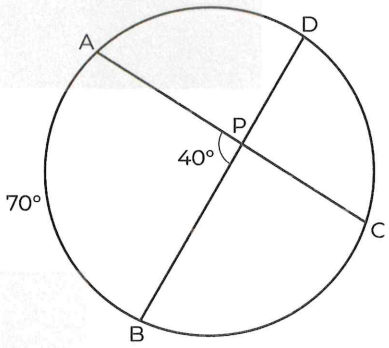


$|AB| = |AC|$, $m(\widehat{AC}) = 80°$, $m(\widehat{BAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 70 B) 80 C) 100 D) 110 E) 120

16.



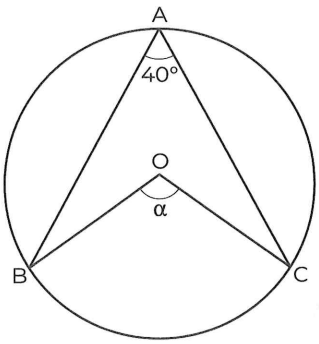
$m(\widehat{AB}) = 70°$, $m(\widehat{APB}) = 40° \Rightarrow m(\widehat{CD}) = ?$

A) 10 B) 30 C) 40 D) 50 E) 60

PUZA ACADEMY

IRANINOVIN

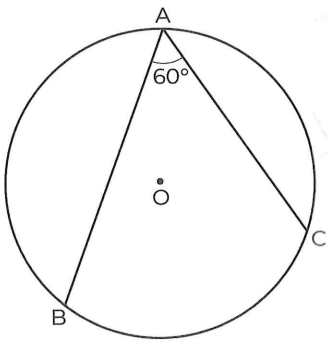
17.



$m(\widehat{BAC}) = 40°,\ m(\widehat{BOC}) = \alpha \Rightarrow \alpha = ?$

A) 40 B) 60 C) 80 D) 100 E) 120

18.

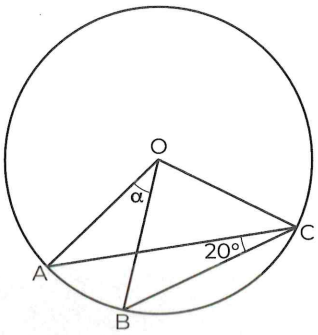


O merkezli çember (A circle with a center O)

$m(\widehat{BAC}) = 60° \Rightarrow m(\widehat{BC}) = ?$

A) 150 B) 140 C) 130 D) 120 E) 110

19.

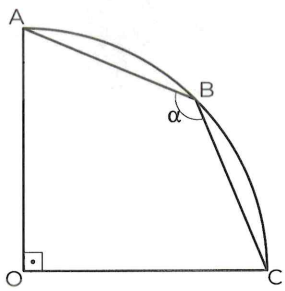


O merkezli çember (A circle with a center O)

$m(\widehat{ACB}) = 20°, m(\widehat{AOB}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 25 C) 30 D) 35 E) 40

20.



O merkezli çeyrek çember

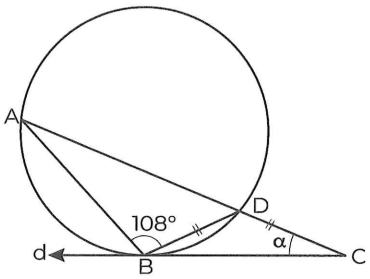
A quarter circle with a center O

$[AO] \perp [OC],\ m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 135 B) 120 C) 115 D) 100 E) 90

PUZA ACADEMY

21.



d doğrusu B noktasında çembere teğettir.

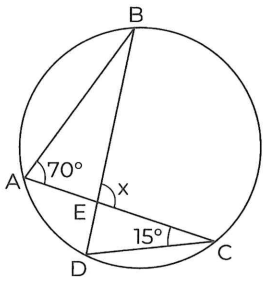
Line d is tangential to the circle at the point B.

$|BD| = |DC|$, $m(\widehat{ABD}) = 108°$, $m(\widehat{ACB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 12 B) 18 C) 24 D) 30 E) 36

22.

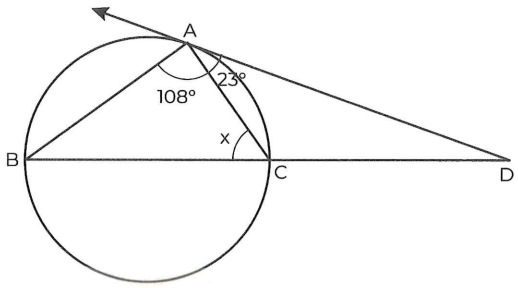


$m(\widehat{BAC}) = 70°$, $m(\widehat{ACD}) = 15°$, $m(\widehat{BEC}) = x$

$\Rightarrow x = ?$

A) 80 B) 85 C) 90 D) 95 E) 100

23.



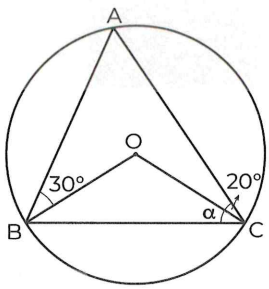
[DA teğet doğrusu (tangent line)

$m(\widehat{DAC}) = 23°$, $m(\widehat{BAC}) = 108°$, $m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 43 B) 49 C) 52 D) 55 E) 57

24.



O merkezli çember (A circle with a center O)

$m(\widehat{ABO}) = 30°$, $m(\widehat{ACO}) = 20°$, $m(\widehat{OCB}) = \alpha$

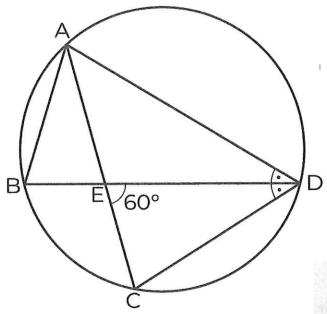
$\Rightarrow \alpha = ?$

A) 30 B) 35 C) 40 D) 45 E) 50

PUZA ACADEMY

IRANINOVIN

25.

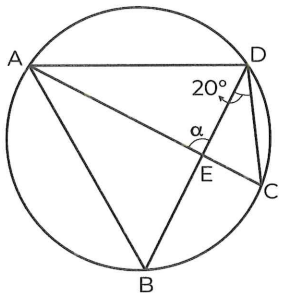


$m(\widehat{ADB}) = m(\widehat{BDC})$, $m(\widehat{CED}) = 60°$

$\Rightarrow m(\widehat{BAD}) = ?$

A) 60 B) 70 C) 75 D) 80 E) 90

26.

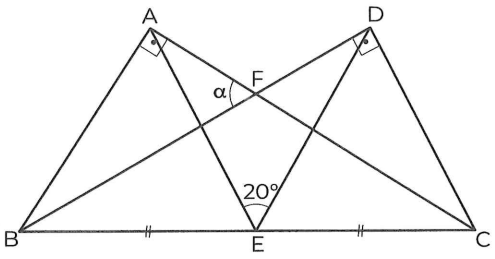


ABD eşkenar üçgen (equilateral triangle)

$m(\widehat{BDC}) = 20°$, $m(\widehat{DEA}) = \alpha \Rightarrow \alpha = ?$

A) 90 B) 85 C) 80 D) 75 E) 70

27.

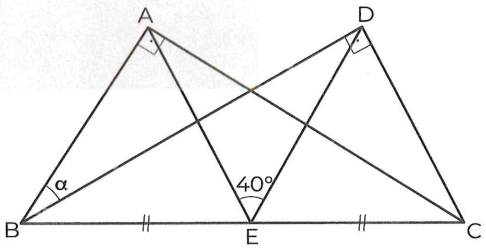


$[AB] \perp [AC]$, $[BD] \perp [DC]$, $|BE| = |EC|$

$m(\widehat{AED}) = 20°$, $m(\widehat{AFB}) = \alpha \Rightarrow \alpha = ?$

A) 55 B) 60 C) 70 D) 75 E) 80

28.



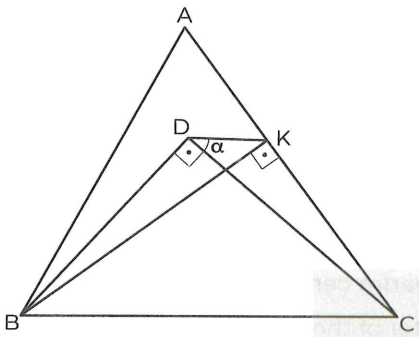
$[BA] \perp [AC]$, $[BD] \perp [DC]$, $|BE| = |EC|$

$m(\widehat{AED}) = 40$, $m(\widehat{ABD}) = \alpha \Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 30 E) 40

PUZA ACADEMY

29.

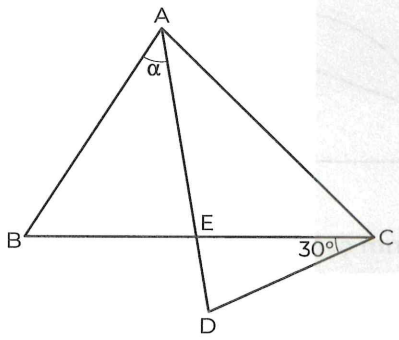


ABC eşkenar üçgen (ABC equilateral triangle)

$[BD] \perp [DC]$, $[BK] \perp [AC]$, $m(\widehat{KDC}) = \alpha \Rightarrow \alpha = ?$

A) 75 B) 40 C) 45 D) 30 E) 20

30.

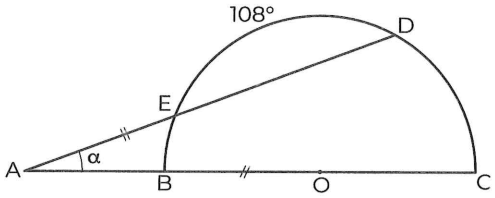


$|AD| = |AB| = |AC|$, $m(\widehat{ECD}) = 30°$, $m(\widehat{BAD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 75 B) 60 C) 50 D) 45 E) 30

31.



O merkezli yarım çember

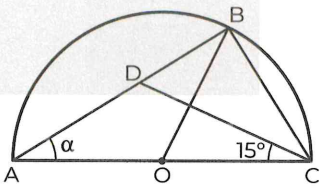
A semi circle with a center O

$|AE| = |BO|$, $m(\widehat{ED}) = 108°$, $m(\widehat{DAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 9 B) 18 C) 27 D) 36 E) 42

32.



O, merkezli yarım çember

(O, is the center of semi circle)

$|DB| = |BC|$, $m(\widehat{DCA}) = 15°$, $m(\widehat{BAC}) = \alpha$

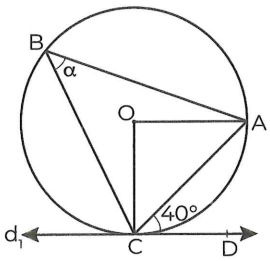
$\Rightarrow \alpha = ?$

A) 15 B) 20 C) 25 D) 30 E) 35

PUZA ACADEMY

IRANINOVIN

33.



d_1 doğrusu C noktasında çembere teğettir.

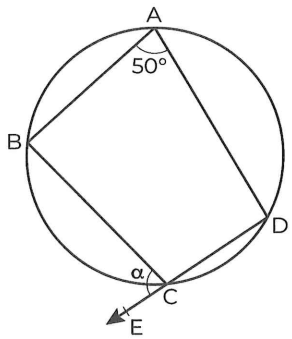
Line d_1 is tangential to the circle at the point C.

O merkezli çember (A circle with a center O)

$m(\widehat{ACD}) = 40°$, $m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 60 E) 80

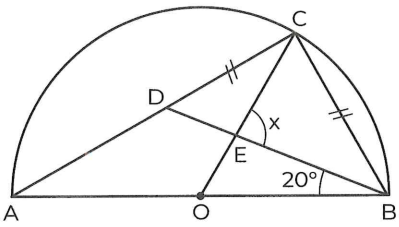
34.



$m(\widehat{BAD}) = 50°$, $m(\widehat{BCE}) = \alpha \Rightarrow \alpha = ?$

A) 150 B) 130 C) 110 D) 70 E) 50

35.



O merkezli yarım çember

O, is the center of the semi circle

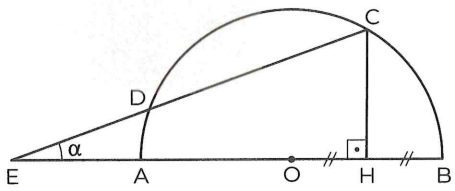
$|DC| = |CB|$, $m(\widehat{DBA}) = 20°$, $m(\widehat{CEB}) = x$

$\Rightarrow x = ?$

A) 60 B) 65 C) 70 D) 75 E) 80

PUZA ACADEMY

36.



O merkezli yarım çember

O, is the center of the semi circle

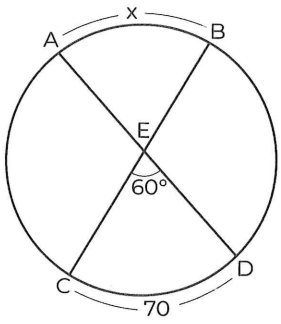
[AB] çap (diameter)

$|OH| = |HB|$, $|AE| = 2|CH|$, $m(\widehat{CEB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 15 B) 20 C) 22,5 D) 30 E) 45

1.

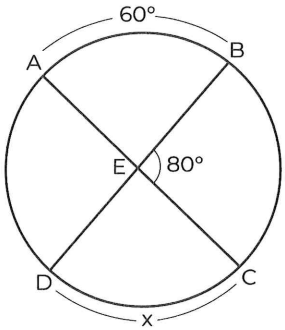


$m(\widehat{CED}) = 60°$, $m(\widehat{CD}) = 70°$, $m(\widehat{AB}) = x$

$\Rightarrow x = ?$

A) 40 B) 50 C) 60 D) 70 E) 80

2.

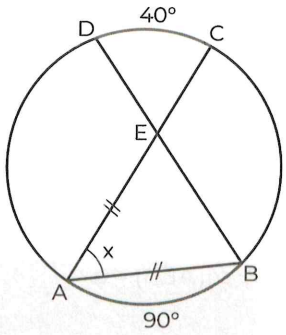


$m(\widehat{BEC}) = 80°$, $m(\widehat{AB}) = 60°$, $m(\widehat{DC}) = x$

$\Rightarrow x = ?$

A) 140 B) 100 C) 80 D) 70 E) 60

3.

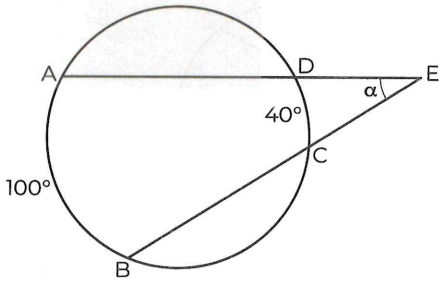


$|AB| = |AE|$, $m(\widehat{CD}) = 40°$, $m(\widehat{AB}) = 90°$,

$m(\widehat{CAB}) = x \Rightarrow x = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

4.



$m(\widehat{AB}) = 100$, $m(\widehat{DC}) = 40°$, $m(\widehat{AEB}) = \alpha$

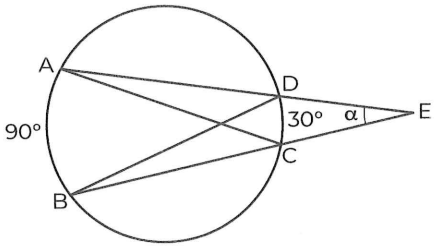
$\Rightarrow \alpha = ?$

A) 70 B) 60 C) 50 D) 40 E) 30

PUZA ACADEMY

IRANINOVIN

5.

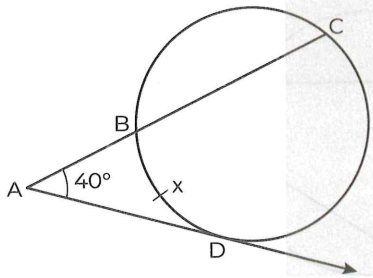


$m(\widehat{AB}) = 90°$, $m(\widehat{DC}) = 30°$, $m(\widehat{AEB}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 60

6.



[AD doğrusu D noktasında çembere teğet

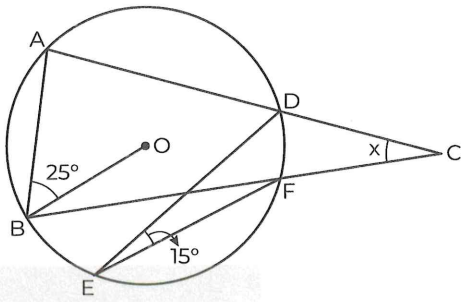
Line [AD tangent on circle on point D

$m(\widehat{CAD}) = 40°$, $m(\widehat{BDC}) = 200°$

$\Rightarrow m(\widehat{BxD}) = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

7.



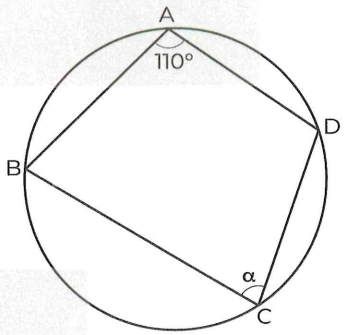
O merkezli çember (O, is the center of circle)

$m(\widehat{ABO}) = 25°$, $m(\widehat{DEF}) = 15°$, $m(\widehat{ACB}) = x$

$\Rightarrow x = ?$

A) 30 B) 35 C) 40 D) 45 E) 50

8.

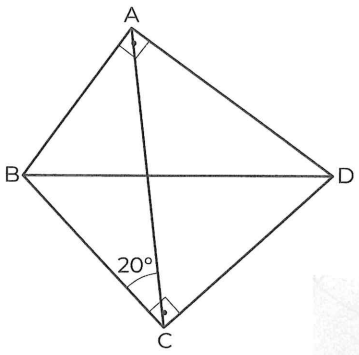


$m(\widehat{BAD}) = 110°$, $m(\widehat{DCB}) = \alpha \Rightarrow \alpha = ?$

A) 80 B) 70 C) 60 D) 50 E) 40

PUZA ACADEMY

9.

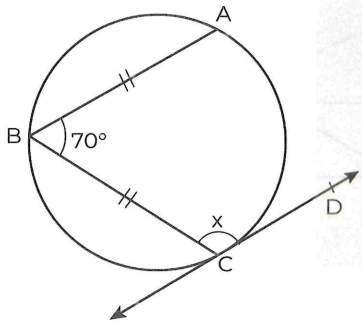


[BA] ⊥ [AD], [BC] ⊥ [CD], $m(\widehat{BCA}) = 20°$

$\Rightarrow m(\widehat{ABD}) = ?$

A) 20 B) 40 C) 60 D) 70 E) 80

10.



CD doğrusu çembere C noktasında teğettir.

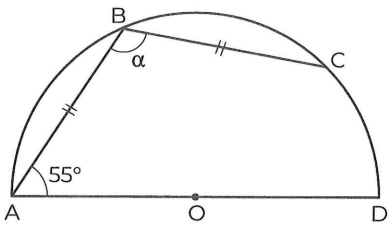
Line CD tangent on circle on point C

$|AB| = |BC|$, $m(\widehat{ABC}) = 70°$, $m(\widehat{BCD}) = x$

$\Rightarrow x = ?$

A) 125 B) 130 C) 135 D) 140 E) 145

11.



O merkezli yarım çember

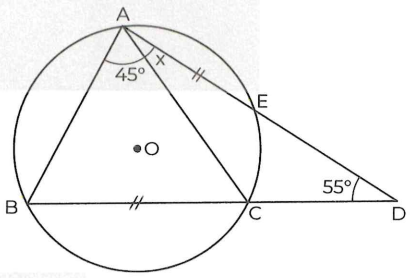
O is the center of semi circle

$|AB| = |BC|$, $m(\widehat{BAD}) = 55°$, $m(\widehat{ABC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 55 B) 100 C) 110 D) 125 E) 130

12.



O merkezli çember (O, is the center of circle)

$|AE| = |BC|$, $m(\widehat{CAB}) = 45°$, $m(\widehat{ADC}) = 55°$

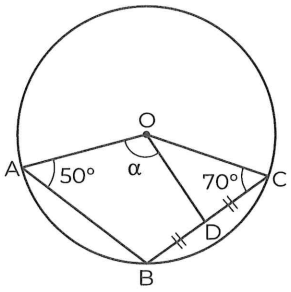
$m(\widehat{CAD}) = x \Rightarrow 2x = ?$

A) 17,5 B) 30 C) 35 D) 40 E) 45

PUZA ACADEMY

IRANINOVIN

13.



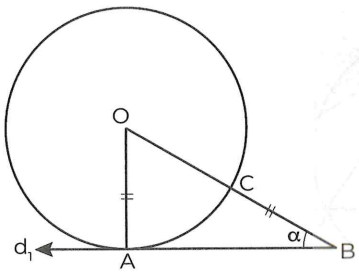
O merkezli çember (O, is the center of circle)

$|BD| = |DC|$, $m(\widehat{OAB}) = 50°$, $m(\widehat{OCB}) = 70°$,

$m(\widehat{AOD}) = \alpha \Rightarrow \alpha = ?$

A) 90 B) 100 C) 105 D) 110 E) 115

14.



d_1 doğrusu A noktasında çembere teğettir.

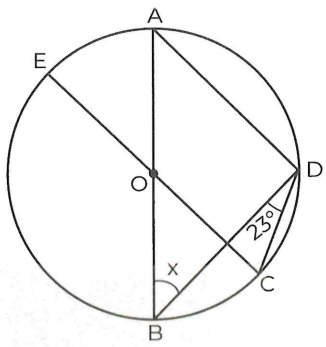
Line d_1 is tangent to the circle on point A.

O merkezli çember (A circle with a center O)

$|OA| = |CB|$, $m(\widehat{OBA}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 24 C) 30 D) 35 E) 40

15.



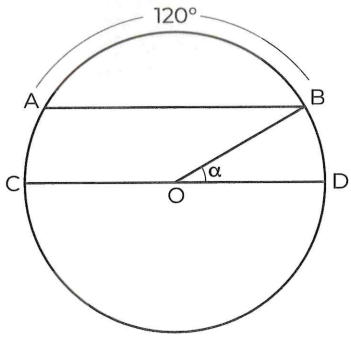
O merkezli çember (O, is the center of circle)

$[AD] \,//\, [EC]$, $m(\widehat{BDC}) = 23°$, $m(\widehat{ABD}) = x$

$\Rightarrow x = ?$

A) 26 B) 32 C) 34 D) 42 E) 44

16.



O merkezli çember (A circle with a center O)

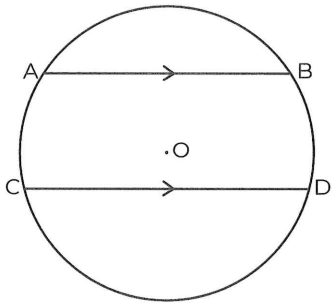
$[AB] \,//\, [CD]$, $m(\widehat{AB}) = 120°$, $m(\widehat{BOD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 30 B) 35 C) 40 D) 45 E) 50

PUZA ACADEMY

17.



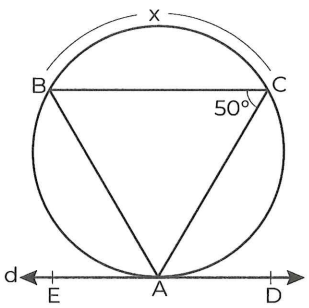
O merkezli çember (A circle with a center O)

[AB] // [CD], $m(\widehat{AB}) = 90°$, $m(\widehat{CD}) = 140°$

$\Rightarrow m(\widehat{AC}) = ?$

A) 55 B) 65 C) 70 D) 75 E) 80

18.



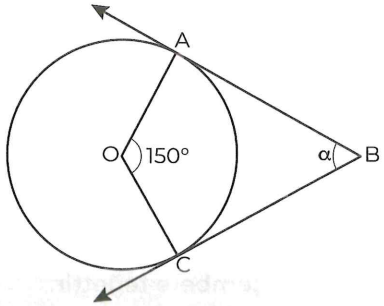
d doğrusu A noktasında çembere teğettir.

Line d is tangent to the circle on point A.

[BC] // [ED], $m(\widehat{BCA}) = 50°$, $m(\widehat{BC}) = x \Rightarrow x = ?$

A) 160 B) 140 C) 100 D) 80 E) 50

19.



A ve C teğet noktalardır.

A and C are tangential points of the circle.

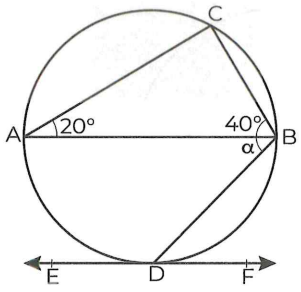
O merkezli çember (A circle with a center O)

$m(\widehat{AOC}) = 150°$, $m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 50

PUZA ACADEMY

20.



[EF] doğrusu D noktasında çembere teğettir.

Line [EF] is tangential to the circle at the point D.

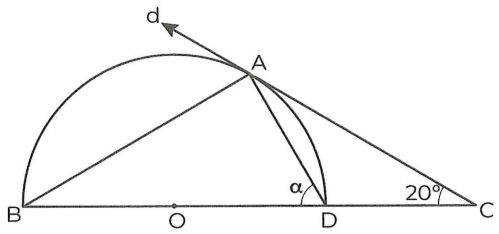
[AB] // [EF], $m(\widehat{CAB}) = 20°$, $m(\widehat{CBA}) = 40°$

$m(\widehat{ABD}) = \alpha \Rightarrow \alpha = ?$

A) 40 B) 45 C) 50 D) 55 E) 60

IRANINOVIN

21.



d doğrusu A noktasında çembere teğettir.

Line d is tangent to the circle on point A.

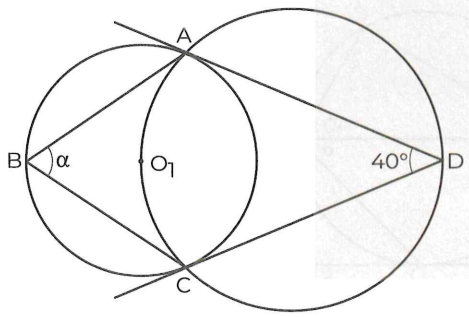
O merkezli yarım çember

A semi circle with a center O

$m(\widehat{ACB}) = 20, m(\widehat{ADB}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 30 C) 45 D) 50 E) 55

22.



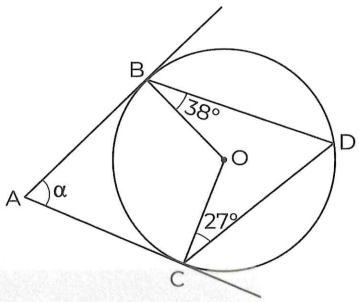
A ve C teğet noktalardır.

A and C are tangential points of the circle.

$m(\widehat{ADC}) = 40, m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 70 B) 65 C) 60 D) 55 E) 50

23.



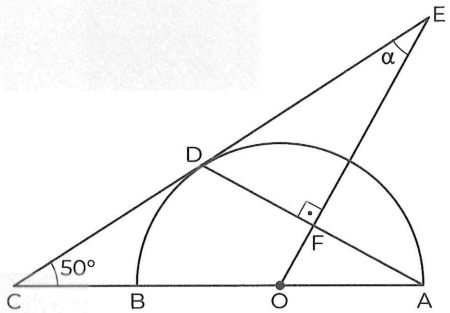
O merkezli çember (O, is the center of circle)

$m(\widehat{OCD}) = 27°$, $m(\widehat{DBO}) = 38°$, $m(\widehat{BAC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 45 B) 50 C) 60 D) 65 E) 70

24.



O merkezli yarım çember

O, is the center of semi circle

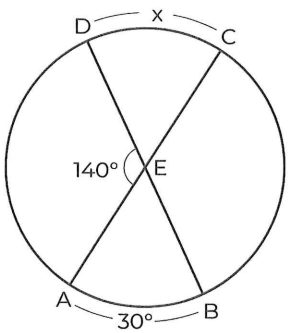
$[EO] \perp [AD]$, $m(\widehat{ECA}) = 50°$, $m(\widehat{CEO}) = \alpha$

$\Rightarrow \alpha = ?$

A) 20 B) 25 C) 30 D) 35 E) 40

PUZA ACADEMY

1.

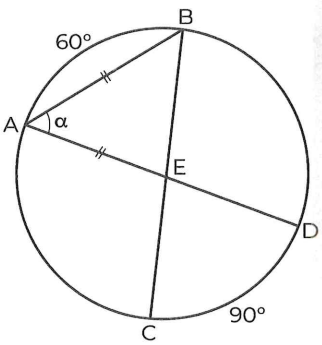


$m(\widehat{DEA}) = 140°,\ m(\widehat{AB}) = 30°, m(\widehat{DC}) = x$

$\Rightarrow x = ?$

A) 35 B) 40 C) 45 D) 50 E) 55

2.

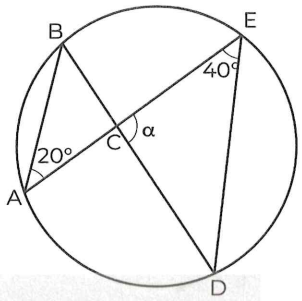


$|AB| = |AE|,\ m(\widehat{AB}) = 60°, m(\widehat{CD}) = 90°$

$m(\widehat{BAD}) = \alpha \Rightarrow \alpha = ?$

A) 30 B) 45 C) 60 D) 65 E) 75

3.

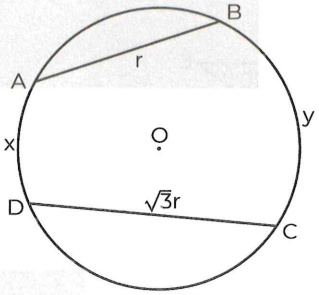


$m(\widehat{BAE}) = 20°, m(\widehat{AED}) = 40°, m(\widehat{ECD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 100 B) 110 C) 120 D) 130 E) 140

4.



O merkezli çemberin yarıçapı r

The radius of the circle with the center of O is "r".

$|AB| = r, |DC| = \sqrt{3}r, m(\widehat{AD}) = x, m(\widehat{BC}) = y$

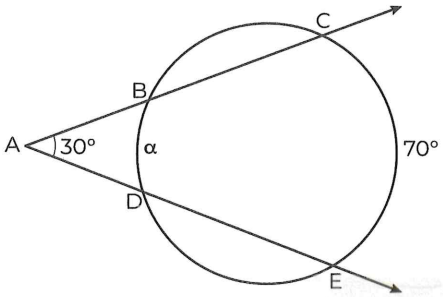
$\Rightarrow x + y = ?$

A) 210 B) 180 C) 150 D) 120 E) 110

PUZA ACADEMY

IRANINOVIN

5.

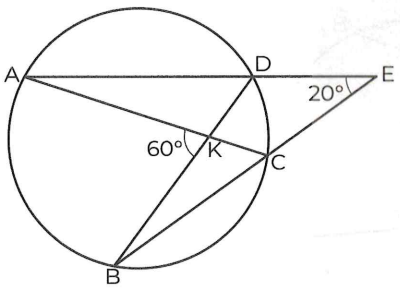


$m(\widehat{CAE}) = 30°$, $m(\widehat{CE}) = 70°$, $m(\widehat{BD}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 50

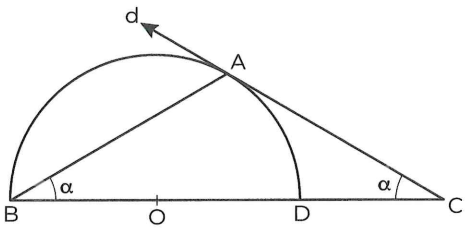
6.



$m(\widehat{AEB}) = 20°$, $m(\widehat{AKB}) = 60° \Rightarrow m(\widehat{AB}) = ?$

A) 120 B) 100 C) 90 D) 80 E) 70

7.



d doğrusu A noktasında çembere teğettir.

Line d is tangent to circle on point A.

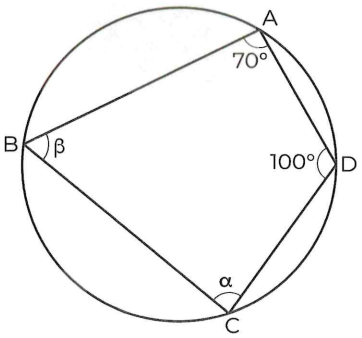
O merkezli yarım çember

A semi circle with a center O

$m(\widehat{ABC}) = m(\widehat{BCA}) = \alpha \Rightarrow \alpha = ?$

A) 30 B) 40 C) 50 D) 55 E) 60

8.



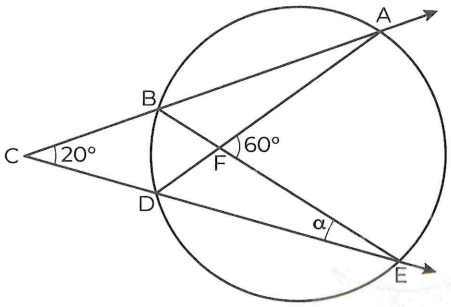
$m(\widehat{BAD}) = 70°$, $m(\widehat{ADC}) = 100°$, $m(\widehat{BCD}) = \alpha$

$m(\widehat{ABC}) = \beta \Rightarrow \alpha - \beta = ?$

A) 30 B) 40 C) 50 D) 60 E) 70

PUZA ACADEMY

9.

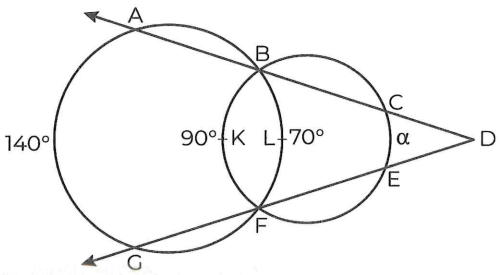


$m(\widehat{AFE}) = 60°$, $m(\widehat{ACE}) = 20°$, $m(\widehat{BEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 50

11.

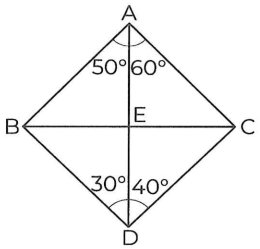


$m(\widehat{AG}) = 140°$, $m(\widehat{BKF}) = 90°$, $m(\widehat{BLF}) = 70°$

$m(\widehat{CE}) = \alpha \Rightarrow \alpha = ?$

A) 10 B) 20 C) 30 D) 40 E) 45

10.



ABDC kirişler dörtgeni

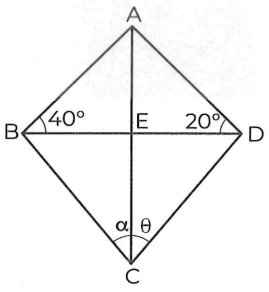
ABDC inscribed quadrilateral

$m(\widehat{BAD}) = 50°$, $m(\widehat{DAC}) = 60°$, $m(\widehat{BDA}) = 30°$

$m(\widehat{ADC}) = 40° \Rightarrow m(\widehat{ACD}) = ?$

A) 30 B) 45 C) 75 D) 80 E) 90

12.



ABCD kirişler dörtgeni

ABCD inscribed quadrilateral

$m(\widehat{ABD}) = 40°$, $m(\widehat{ADB}) = 20°$, $m(\widehat{BCA}) = \alpha$

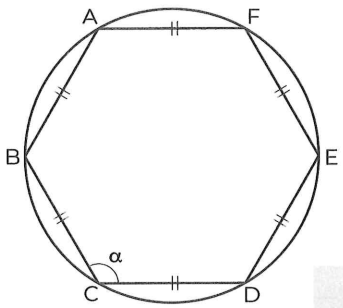
$m(\widehat{ACD}) = \theta \Rightarrow \theta - \alpha = ?$

A) 5 B) 15 C) 20 D) 30 E) 40

PUZA ACADEMY

IRANINOVIN

13.

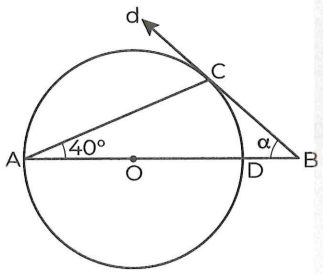


ABCDEF **düzgün altıgen** (regular hexagon)

$m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$

A) 108 B) 110 C) 118 D) 120 E) 124

14.



d doğrusu C noktasında çembere teğettir.

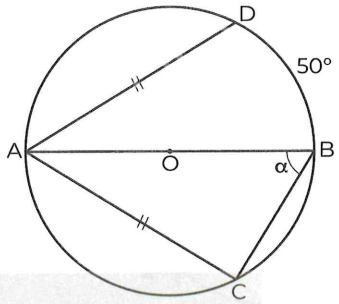
Line d is tangent to the circle on point C.

O merkezli çember (A circle with a center O)

$m(\widehat{CAB}) = 40°, m(\widehat{CBA}) = \alpha \Rightarrow \alpha = ?$

A) 50 B) 40 C) 30 D) 20 E) 10

15.

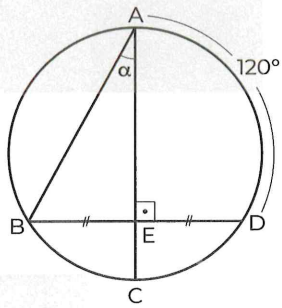


O merkezli çember (A circle with a center O)

$|DA| = |AC|,\ m(\widehat{DB}) = 50°, m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 70 B) 65 C) 60 D) 55 E) 50

16.



$[AC] \perp [BD],\ |BE| = |ED|,\ m(\widehat{AD}) = 120°$

$m(\widehat{BAC}) = \alpha \Rightarrow \alpha = ?$

A) 26 B) 27 C) 28 D) 29 E) 30

PUZA ACADEMY

IRANINOVIN
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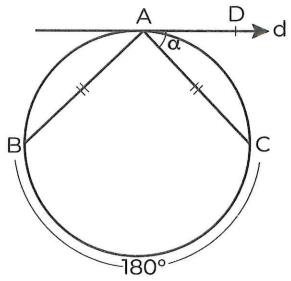
17.



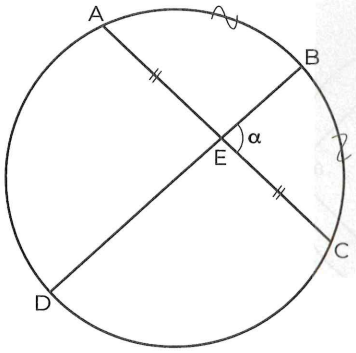
d doğrusu A noktasında çembere teğettir.

Line d is tangential to the circle at the point A.

$|AB| = |AC|$, $m(\widehat{BC}) = 180°$, $m(\widehat{DAC}) = \alpha \Rightarrow \alpha = ?$

A) 35 B) 40 C) 45 D) 50 E) 60

18.

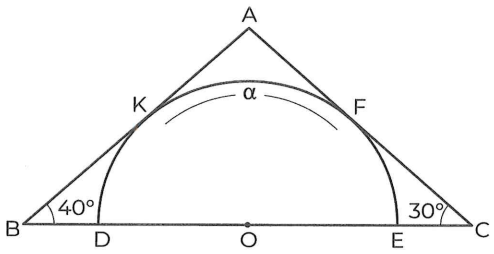


$|AE| = |EC|$, $m(\widehat{AB}) = m(\widehat{BC})$, $m(\widehat{BEC}) = \alpha$

$\Rightarrow \alpha = ?$

A) 70 B) 80 C) 90 D) 100 E) 110

19.



K ve F teğet noktalardır.

K and F are tangential points.

O merkezli yarım çember

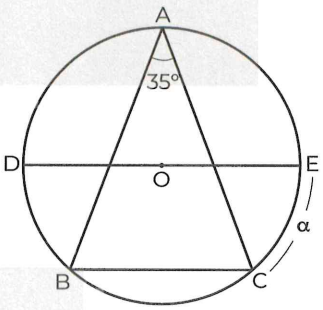
A semi circle with a center O

$m(\widehat{ABC}) = 40°$, $m(\widehat{BCA}) = 30°$, $m(\widehat{KF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 60 B) 70 C) 80 D) 90 E) 100

20.



O merkezli çember (A circle with a center O)

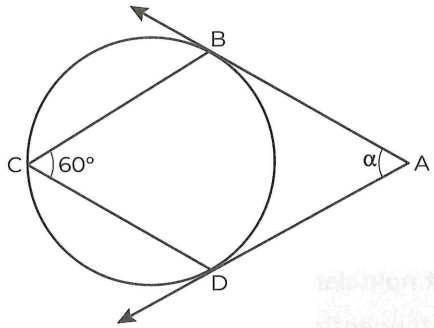
$[DE] // [BC]$, $m(\widehat{BAC}) = 35°$, $m(\widehat{CE}) = \alpha \Rightarrow \alpha = ?$

A) 40 B) 45 C) 50 D) 55 E) 60

PUZA ACADEMY

IRANINOVIN

21.



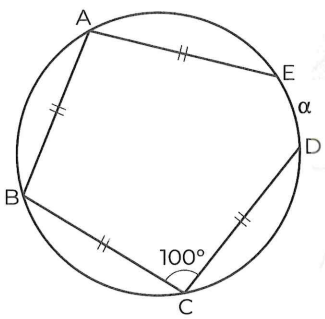
B ve D çemberin teğet noktalarıdır.

B and D are tangential points of the circle.

$m(\widehat{BCD}) = 60°$, $m(\widehat{BAD}) = \alpha \Rightarrow \alpha = ?$

A) 60 B) 80 C) 100 D) 110 E) 120

22.

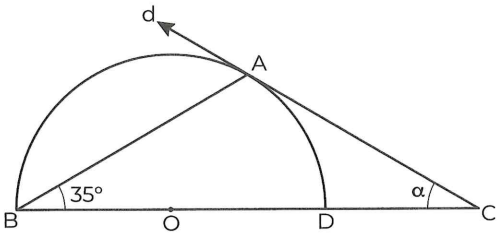


$|AE| = |DC| = |BC| = |BA|$

$m(\widehat{BCD}) = 100°$, $m(\widehat{DE}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 30 C) 40 D) 50 E) 60

23.



d doğrusu A noktasında çembere teğettir.

Line d is tangential to the circle at the point A.

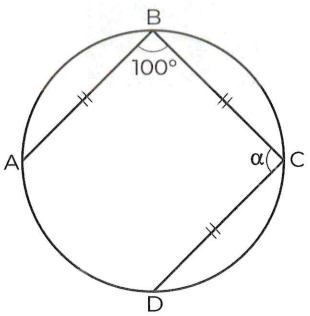
O merkezli yarım çember

A semi circle with a center O

$m(\widehat{ABC}) = 35°$, $m(\widehat{ACB}) = \alpha \Rightarrow \alpha = ?$

A) 10 B) 15 C) 20 D) 25 E) 30

24.



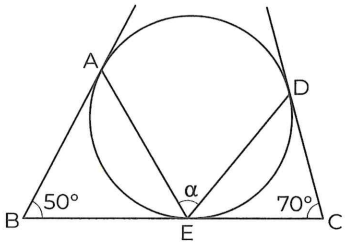
$|AB| = |BC| = |CD|$, $m(\widehat{ABC}) = 100°$

$m(\widehat{BCD}) = \alpha \Rightarrow \alpha = ?$

A) 100 B) 90 C) 80 D) 70 E) 60

PUZA ACADEMY

25.



A ve D teğet noktalardır.

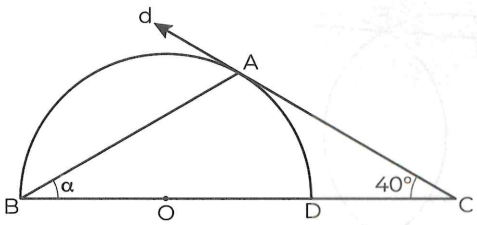
A and D are tangential points of the circle.

$m(\widehat{ABC}) = 50°$, $m(\widehat{DCB}) = 70°$, $m(\widehat{DEA}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 55 C) 60 D) 65 E) 70

26.



d doğrusu A noktasında çembere teğettir.

Line d is tangential to the circle at the point A.

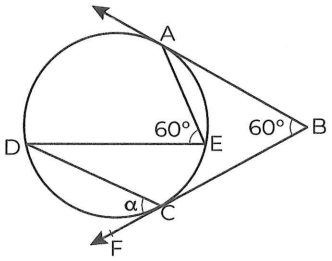
O merkezli yarım çember

A semi circle with a center O

$m(\widehat{ACB}) = 40°$, $m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 20 B) 25 C) 30 D) 35 E) 40

27.



A ve C teğet noktalardır.

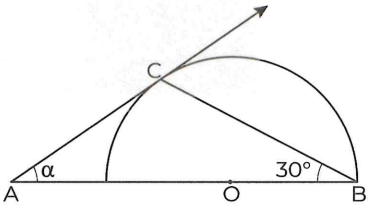
A and C are tangential points of the circle.

$m(\widehat{AED}) = 60°$, $m(\widehat{ABC}) = 60°$, $m(\widehat{DCF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 65 B) 60 C) 55 D) 50 E) 45

28.



O merkezli yarım çember

A semi circle with a center O

C teğet noktasıdır.

C is tangential points of the circle.

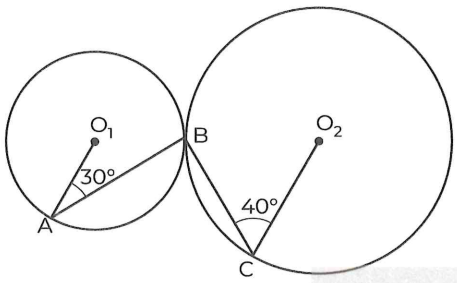
$m(\widehat{CBA}) = 30°$, $m(\widehat{CAB}) = \alpha \Rightarrow \alpha = ?$

A) 30 B) 60 C) 90 D) 120 E) 150

PUZA ACADEMY

IRANINOVIN

29.



O_1 ve O_2 merkezli çemberler

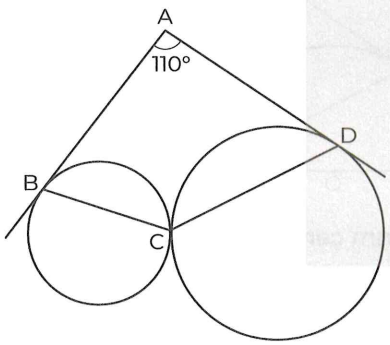
O_1 and O_2 are center of circles

$m(\widehat{O_1AB}) = 30°$, $m(\widehat{BCO_2}) = 40°$

$\Rightarrow m(\widehat{ABC}) = ?$

A) 100 B) 105 C) 110 D) 115 E) 120

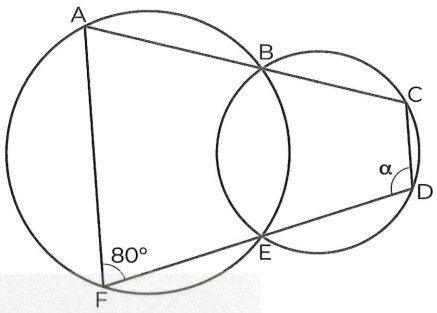
30.



$m(\widehat{BAD}) = 110° \Rightarrow m(\widehat{BCD}) = ?$

A) 120 B) 125 C) 130 D) 135 E) 140

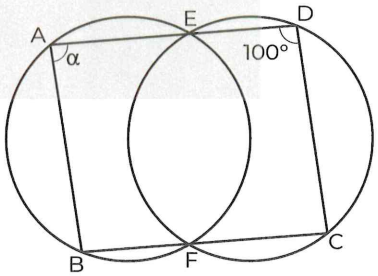
31.



$m(\widehat{AFD}) = 80°, m(\widehat{CDF}) = \alpha \Rightarrow \alpha = ?$

A) 50 B) 80 C) 100 D) 120 E) 160

32.

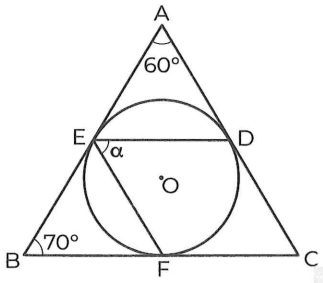


$m(\widehat{ADC}) = 100°, m(\widehat{BAD}) = \alpha \Rightarrow \alpha = ?$

A) 80 B) 70 C) 60 D) 50 E) 40

PUZA ACADEMY

33.



O merkezli çember (A circle with a center O)

E, D ve F çemberin teğet noktalarıdır.

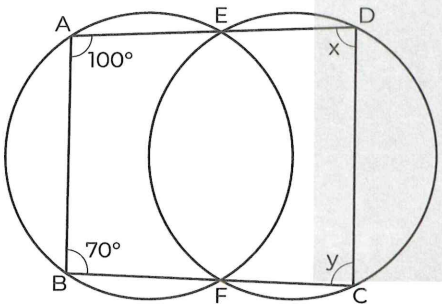
E, D and F are tangential points of the circle.

$m(\widehat{ABC}) = 70°$, $m(\widehat{BAC}) = 60°$, $m(\widehat{DEF}) = \alpha$

$\Rightarrow \alpha = ?$

A) 50 B) 65 C) 75 D) 90 E) 130

34.

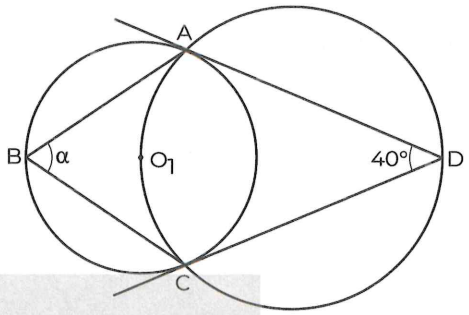


$m(\widehat{BAD}) = 100°$, $m(\widehat{ABC}) = 70°$

$m(\widehat{ADC}) = x$, $m(\widehat{DCB}) = y \Rightarrow y - x = ?$

A) 45 B) 40 C) 35 D) 30 E) 25

35.



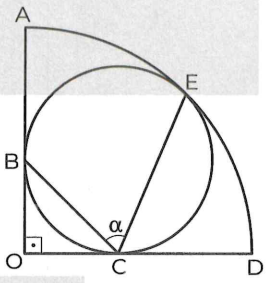
A ve C teğet noktalardır.

A and C are tangential points of the circle.

$m(\widehat{ADC}) = 40$, $m(\widehat{ABC}) = \alpha \Rightarrow \alpha = ?$

A) 70 B) 65 C) 60 D) 55 E) 50

36.



E, B ve C teğet noktalardır.

E, B and C are tangential points of the circle.

O merkezli çeyrek çember

A quarter circle with a center O.

$m(\widehat{BCE}) = \alpha \Rightarrow \alpha = ?$

A) 75 B) 67,5 C) 60 D) 45 E) 40

PUZA ACADEMY

IRANINOVIN

ANGLE IN CIRCLE

ÇEMBERDE AÇI

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
C	C	D	C	C	C	C	A	D	B	E	C

13	14	15	16	17	18	19	20	21	22	23	24
C	D	D	A	B	B	C	C	D	D	E	A

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
E	E	E	D	B	C	C	C	E	A	B	E

13	14	15	16	17	18	19	20	21	22	23	24
C	D	C	A	C	D	A	A	C	B	B	C

25	26	27	28	29	30	31	32	33	34	35	36
A	C	E	C	D	B	B	D	C	E	C	A

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
B	A	C	E	C	D	E	B	D	A	C	C

13	14	15	16	17	18	19	20	21	22	23	24
B	C	E	A	B	A	C	E	E	A	B	A

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
D	A	C	B	A	D	A	A	B	D	B	C

13	14	15	16	17	18	19	20	21	22	23	24
D	E	B	E	C	C	B	D	A	C	C	A

25	26	27	28	29	30	31	32	33	34	35	36
C	B	B	A	C	B	C	A	B	D	A	B

IRANINOVIN

NOTES:

NOTES:

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IRANINOVIN

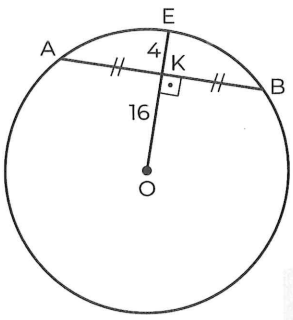
LENGTH ON THE CIRCLE

ÇEMBERDE UZUNLUK

CHAPTER | BÖLÜM 19

IRANINOVIN

1.



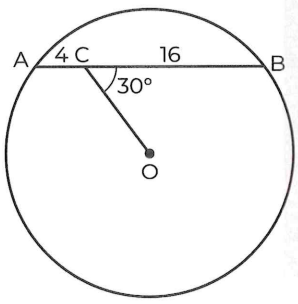
O merkezli çember (O, is the center of circle)

$|AK| = |KB|$, $|EK| = 4$ br , $|OK| = 16$ br

$\Rightarrow |AB| = ?$

A) 12 B) 16 C) 18 D) 20 E) 24

2.



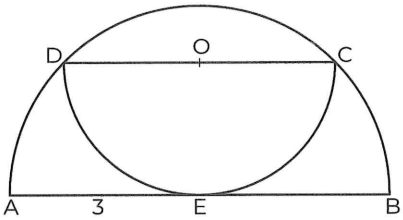
O merkezli çember (O is the center of circle)

$|AC| = 4$ br , $|BC| = 16$ br , $m(\widehat{OCB}) = 30°$

$\Rightarrow |OC| = ?$

A) $3\sqrt{3}$ B) $4\sqrt{3}$ C) $5\sqrt{2}$ D) $6\sqrt{2}$ E) $7\sqrt{3}$

3.



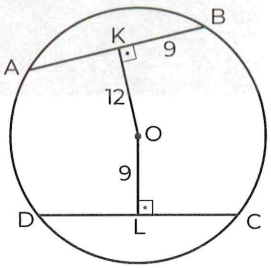
O ve E merkezli yarım çemberler

A circle with a centers O and E

$|AE| = 3$ br $\Rightarrow |DC| = ?$

A) 3 B) $3\sqrt{2}$ C) 6 D) $6\sqrt{2}$ E) 12

4.



O merkezli çember (A circle with a center O)

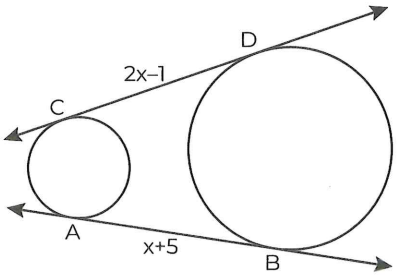
$[AB] \perp [KO]$, $[OL] \perp [DC]$, $|KB| = 9$ br

$|OK| = 12$ br, $|OL| = 9$ br $\Rightarrow |DC| = ?$

A) 30 B) 26 C) 24 D) 20 E) 18

PUZA ACADEMY

5.



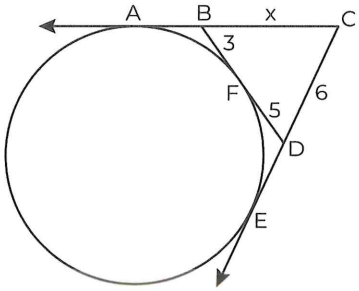
C, D ve A, B teğet noktalarıdır.

Two points C, D and A, B are tangential points.

$|CD| = 2x - 1$, $|AB| = x + 5 \Rightarrow x = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

7.



A, F ve E teğet noktalarıdır.

The points A, F and E are tangential points.

$|BF| = 3$ br, $|CD| = 6$ br, $|FD| = 5$ br, $|BC| = x$

$\Rightarrow x = ?$

A) 10 B) 8 C) 6 D) 4 E) 2

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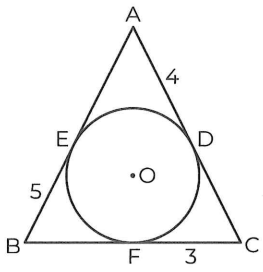
PUZA ACADEMY

6.



ABC **üçgen** (triangle)

O merkezli iç teğet çember

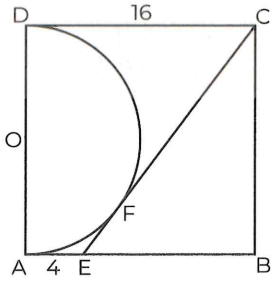
O, is the center of inner tangent circle

$|AD| = 4$ br, $|EB| = 5$ br, $|FC| = 3$ br

$\Rightarrow$ **Çevre** (Perimeter)$(\widehat{ABC}) = ?$

A) 12 B) 16 C) 20 D) 22 E) 24

8.



O merkezli çember (A circle with a center O)

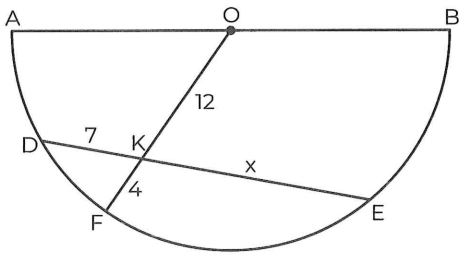
ABCD **kare** (square)

$|DC| = 16$ br $\Rightarrow |EB| = ?$

A) 4 B) 6 C) 8 D) 10 E) 12

IRANINOVIN

9.



O merkezli yarım çember

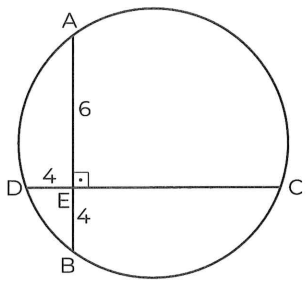
O is the center of semi circle

[OF] ∩ [DE] = {K} , |FK| = 4 br , |DK| = 7 br

|OK| = 12 br , |KE| = x ⇒ x = ?

A) 9 B) 11 C) 13 D) 15 E) 16

10.

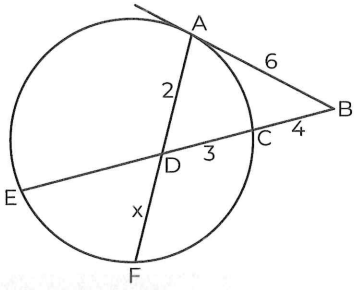


[AB] ⊥ [DC], |AE| = 6 br, |EB| = 4 br, |DE| = 4 br

⇒ r = ?

A) $\sqrt{10}$ B) $5\sqrt{2}$ C) 6 D) $\sqrt{30}$ E) $\sqrt{26}$

11.



[BA doğrusu çembere A noktasında teğettir.

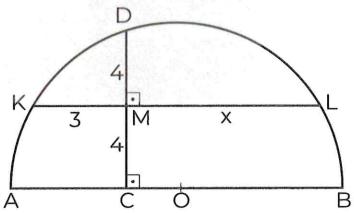
Line [BA is tangent to the circle on point A.

|AB| = 6 br, |AD| = 2 br, |BC| = 4 br, |DC| = 3 br

|DF| = x ⇒ x = ?

A) 5 B) 4 C) 3 D) 2 E) 1

12.



O merkezli yarım çember

A semi circle with a center O

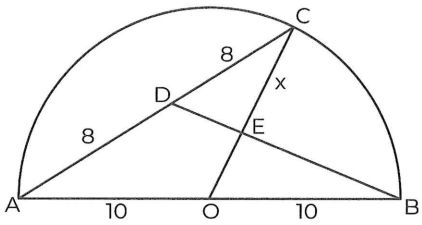
[DC] ⊥ [KL], [DC] ⊥ [AB], |DM| = 4 br

|MC| = 4 br, |KM| = 3 br, |ML| = x ⇒ x = ?

A) 8 B) 16 C) 18 D) 20 E) 24

PUZA ACADEMY

13.



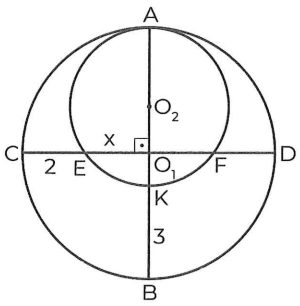
[AB] **çap** (diameter)

$|AO| = |OB| = 10$ br, $|AD| = |DC| = 8$ br, $|CE| = x$

$\Rightarrow x = ?$

A) 6 B) 10 C) 16 D) $\frac{17}{3}$ E) $\frac{20}{3}$

14.



O_1 ve O_2 merkezli çemberler

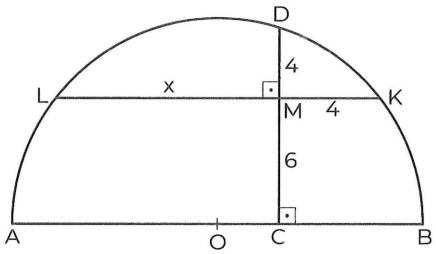
The circles with centers O_1 and O_2

$[AB] \perp [CD]$, $|CE| = 2$ br, $|KB| = 3$ br, $|EO_1| = x$

$\Rightarrow x = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

15.



O merkezli yarım çember

A semi circle with a center O

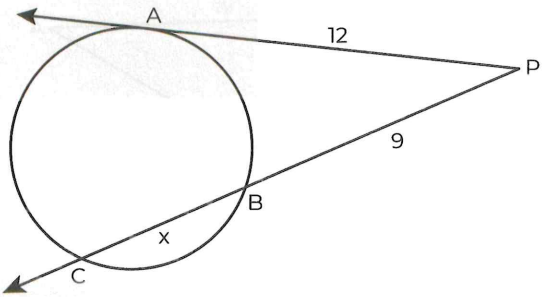
$[DC] \perp [LK]$, $[DC] \perp [AB]$, $|DM| = |MK| = 4$ br

$|MC| = 6$ br, $|LM| = x \Rightarrow x = ?$

A) 16 B) 20 C) 24 D) 28 E) 32

PUZA ACADEMY

16.

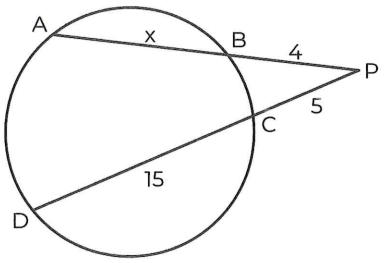


$|PB| = 9$ br , $|AP| = 12$ br , $|BC| = x \Rightarrow x = ?$

A) 3 B) 5 C) 7 D) 9 E) 11

IRANINOVIN

17.

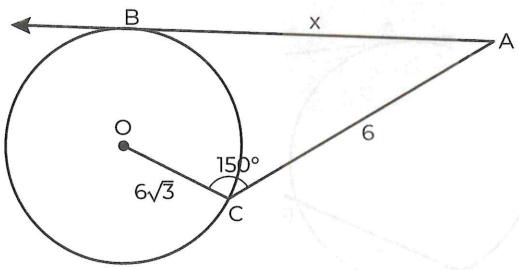


|BP| = 4 br , |PC| = 5 br , |CD| = 15 br , |AB| = x

⇒ x = ?

A) 14 B) 16 C) 18 D) 20 E) 21

18.



[AB doğrusu O merkezli çembere B noktasında teğet

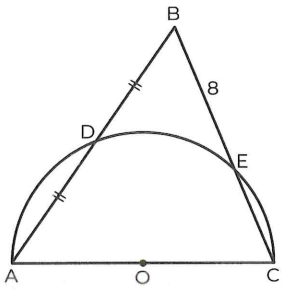
Line [AB is tangent o circle which O is the center of point B.

|AC| = 6 br , |OC| = $6\sqrt{3}$ br , m($\widehat{ACO}$) = 150°

|AB| = x ⇒ x = ?

A) 6 B) 12 C) $8\sqrt{3}$ D) $9\sqrt{3}$ D) $12\sqrt{3}$

19.



O merkezli yarım çember

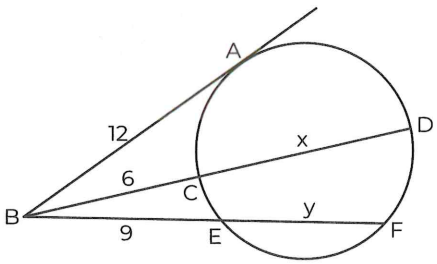
O is the center of semi circle

|BD| = |AD| , |BE| = 8 br , |AC| = 20 br

⇒ |AB| = ?

A) $2\sqrt{5}$ B) $4\sqrt{5}$ C) $6\sqrt{5}$ D) $8\sqrt{5}$ E) $8\sqrt{6}$

20.



[BA doğrusu çembere A noktasında teğettir.

Line [BA is tangent to the circle on point A.

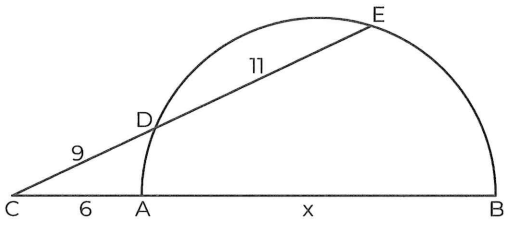
|BC| = 6 br , |BE| = 9 br , |AB| = 12 br , |CD| = x

|EF| = y ⇒ x – y = ?

A) 7 B) 9 C) 11 D) 18 E) 25

PUZA ACADEMY

21.



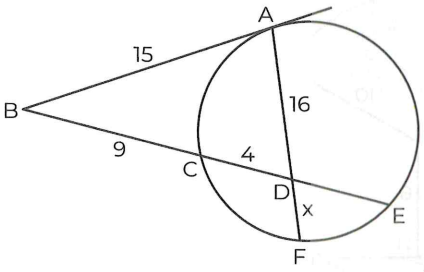
[AB] çap (diameter)

|AC| = 6 br , |CD| = 9 br , |DE| = 11 br , |AB| = x

⇒ x = ?

A) 14 B) 18 C) 20 D) 22 E) 24

22.



[AB] doğrusu çembere A noktasında teğettir.

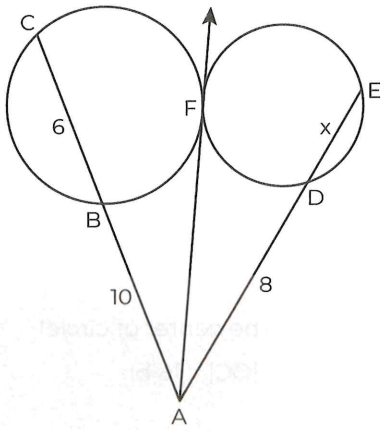
Line [AB] is tangent to the circle on point A.

|CD| = 4 br , |BC| = 9 br , |AB| = 15 br

|AD| = 16 br , |DF| = x ⇒ x = ?

A) 3 B) 4 C) 5 D) 6 E) 7

23.



F teğet noktasıdır.

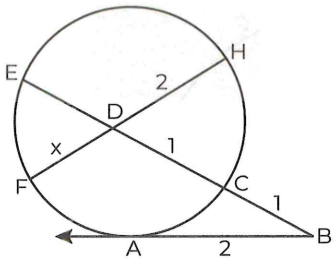
The point F is tangent to the circle

|BC| = 6 br , |AD| = 8 br , |AB| = 10 br , |DE| = x

⇒ x = ?

A) 8 B) 10 C) 12 D) 14 E) 16

24.



A, teğet noktasıdır.

The point A is tangent to the circle.

|DH| = 2 br, |CD| = 1 br, |CB| = 1 br, |AB| = 2 br

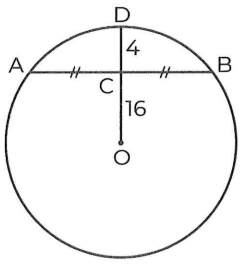
|DF| = x ⇒ x = ?

A) 1 B) 1,5 C) 2 D) 2,5 E) 3

PUZA ACADEMY

IRANINOVIN

1.



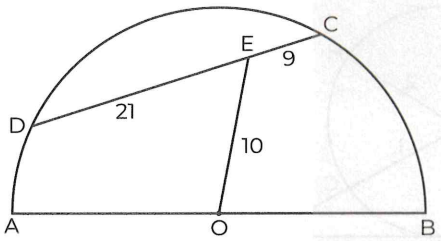
O merkezli çember (O is the center of circle)

|AC| = |BC| , |CD| = 4 br , |OC| = 16 br

⇒ |AB| = ?

A) 12 B) 16 C) 20 D) 24 E) 28

2.



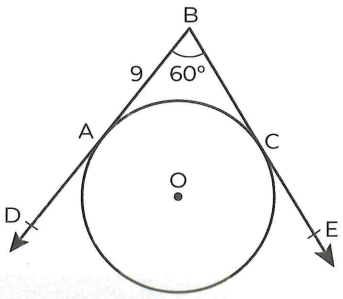
[AB] **çap** (diameter)

|DE| = 21 br, |EC| = 9 br, |EO| = 10 br

⇒ |OB| = ?

A) 13 B) 14 C) 15 D) 16 E) 17

3.



O merkezli çember (O is the center of circle)

$m(\widehat{DBE}) = 60°$, |AB| = 9 br

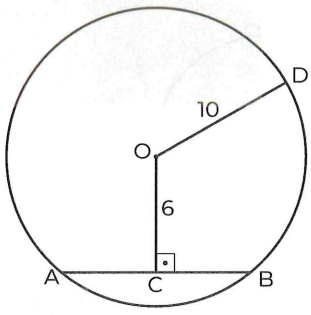
[BD ve [BE çembere sırasıyla A ve C noktalarında teğet

Line [BD and [BE are tangent to circle with respectively point A and C.

⇒ **Çemberin yarıçapı kaçtır?** (What is the value of radius?)

A) $2\sqrt{3}$ B) $3\sqrt{3}$ C) $4\sqrt{2}$ D) $6\sqrt{2}$ E) $6\sqrt{3}$

4.



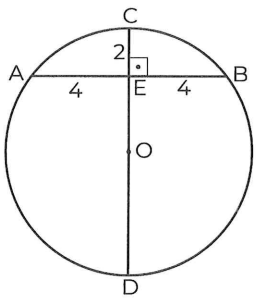
O merkezli çember (A circle with a center O)

|OD| = 10 br, |OC| = 6 br ⇒ |AB| = ?

A) 4 B) 6 C) 8 D) 12 E) 16

PUZA ACADEMY

5.



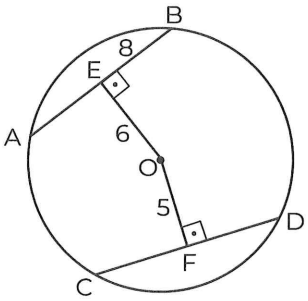
O merkezli çember (A circle with a center O)

[CE] ⊥ [AB], |CE| = 2 br, |AE| = |EB| = 4 br

⇒ |EO| = ?

A) 1 B) 2 C) 3 D) 4 E) 5

6.



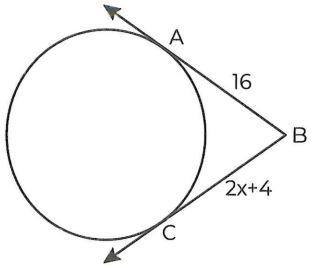
O merkezli çember (A circle with a center O)

[AB] ⊥ [OE] , [OF] ⊥ [CD] , |OF| = 5 br

|OE| = 6 br , |EB| = 8 br ⇒ |CD| = ?

A) $5\sqrt{3}$ B) $6\sqrt{3}$ C) $8\sqrt{3}$ D) $10\sqrt{3}$ E) $12\sqrt{3}$

7.



A ve C teğet noktalarıdır.

Two points A and C are tangential points.

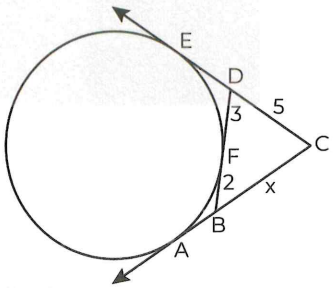
|AB| = 16 br, |CB| = 2x + 4 ⇒ x = ?

A) 6 B) 7 C) 8 D) 9 E) 10

PUZA ACADEMY

@galata1010

8.



A, F ve E teğet noktalarıdır.

The points A, F and E are tangential points.

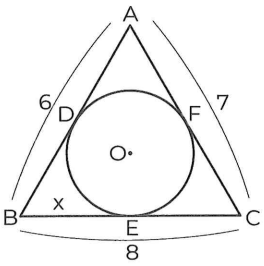
|DC| = 5 br, |DF| = 3 br, |FB| = 2 br, |BC| = x

⇒ x = ?

A) 4 B) 5 C) 6 D) 7 E) 8

IRANINOVIN

9.



O merkezli iç teğet çember

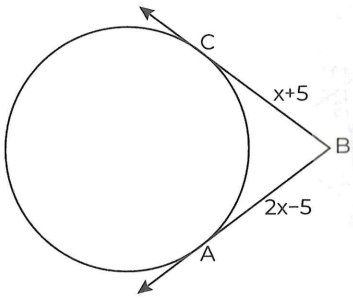
O is the center of internal circle

|AC| = 7 br, |AB| = 6 br, |BC| = 8 br, |BE| = x

⇒ x = ?

A) 2,5 B) 3 C) 3,5 D) 4 E) 4,5

10.



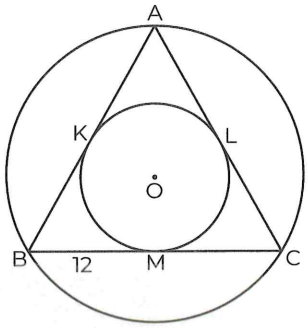
A ve C teğet noktalarıdır.

Two points A and C are tangential points.

|CB| = x + 5, |BA| = 2x – 5 ⇒ x = ?

A) 3 B) 4 C) 5 D) 8 E) 10

11.

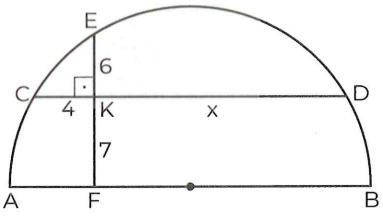


ABC **eşkenar üçgen** (equilateral triangle)

|BM| = 12 br, |AO| = R, |OL| = r ⇒ R – r = ?

A) 15 B) 12 C) $6\sqrt{3}$ D) $4\sqrt{3}$ E) $2\sqrt{3}$

12.



O merkezli yarım çember

A semi circle with a center O

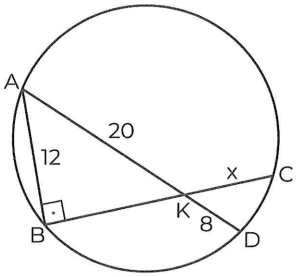
[EF] ⊥ [CD] , |CK| = 4 br , |EK| = 6 br

|KF| = 7 br , |KD| = x ⇒ x = ?

A) 9 B) 13 C) 18 D) 22 E) 30

PUZA ACADEMY

13.

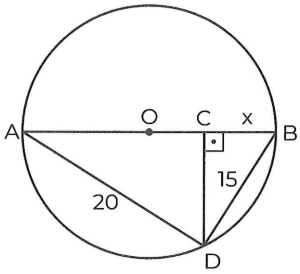


[AB] ⊥ [BC] , |KD| = 8 br , |AB| = 12 br

|AK| = 20 br , |KC| = x ⇒ x = ?

A) 10 B) 12 C) 14 D) 16 E) 18

14.



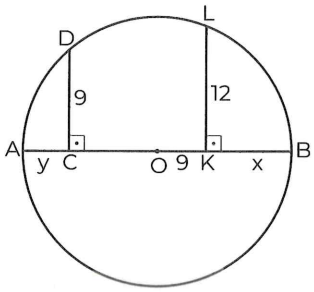
O merkezli çember (A circle with a center O)

[AB] ⊥ [CD] , |BD| = 15 br , |AD| = 20 br

|BC| = x ⇒ x = ?

A) 8 B) 9 C) 12 D) 14 E) 16

15.



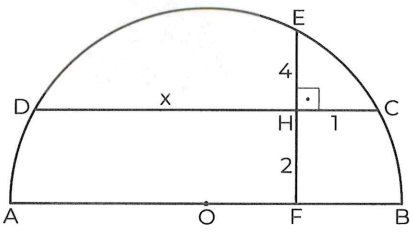
[AB] **çap** (diameter)

[LK] ⊥ [AB], [DC] ⊥ [AB], |DC| = |OK| = 9 br

|LK| = 12 br, |KB| = x, |AC| = y ⇒ x – y = ?

A) –6 B) –3 C) 0 D) 3 E) 6

16.



O merkezli yarım çember

A semi circle with a center O

[EF] ⊥ [DC], |EH| = 4 br, |CH| = 1 br, |HF| = 2 br

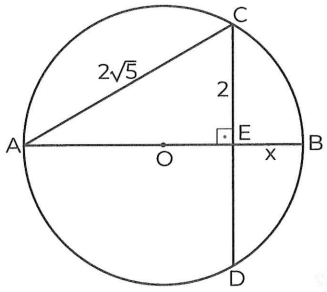
|DH| = x ⇒ x = ?

A) 32 B) 24 C) 20 D) 18 E) 8

PUZA ACADEMY

IRANINOVIN

17.



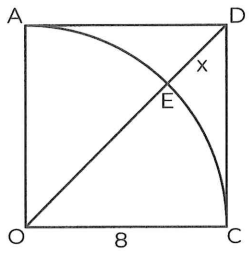
O merkezli çember (A circle with a center O)

[CD] ⊥ [AB], |AC| = 2√5 br, |CE| = 2 br, |EB| = x

⇒ x = ?

A) 1 B) 2 C) 2√2 D) 4 E) 4√2

18.



O merkezli çeyrek çember

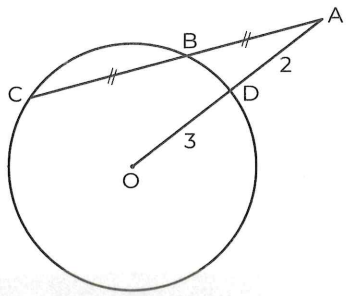
A quarter circle with a center O

|OC| = 8 br, |DE| = x ⇒ x = ?

A) 8 B) 8√2 C) 8√2

D) 8√2 – 8 E) 8√2 + 8

19.



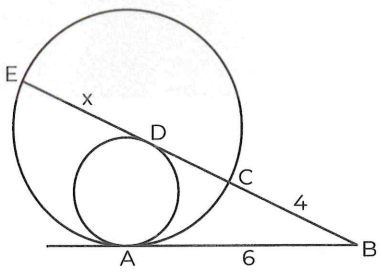
O merkezli çember (A circle with a center O)

|CB| = |BA|, |AD| = 2 br, |OD| = 3 br ⇒ |AB| = ?

A) 4 B) 2√2 C) 8 D) 8√2 E) 16

PUZA ACADEMY

20.



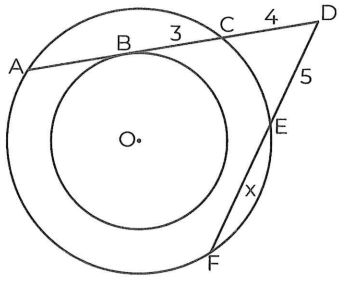
A ve D teğet noktalarıdır.

The points A and D are tangential points.

|AB| = 6 br, |CB| = 4 br, |ED| = x ⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

21.



B, teğet noktasıdır.

The point B is tangent to the circle.

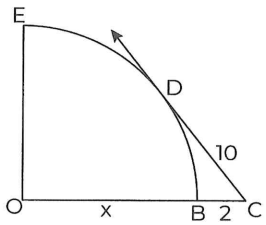
O merkezli çemberler (Circles with a center O.)

|DC| = 4 br, |CB| = 3 br, |DE| = 5 br, |EF| = x

⇒ x = ?

A) 1 B) 2 C) 3 D) 4 E) 5

22.



D, teğet noktasıdır.

The point D is tangent to the circle.

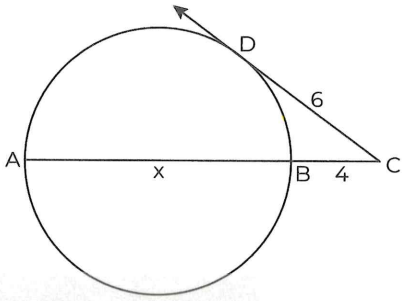
O merkezli çeyrek çember

A quarter circle with a center O

|DC| = 10 br, |BC| = 2 br, |OB| = x ⇒ x = ?

A) 24 B) 20 C) 18 D) 16 E) 8

23.



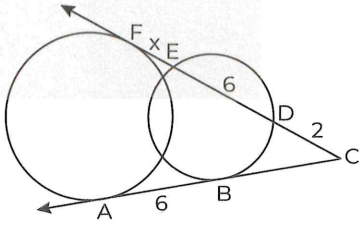
[CD ışını çembere D noktasında teğettir.

Line [CD is tangent to the circle on point D.

|DC| = 6 br, |BC| = 4 br, |AB| = x ⇒ x = ?

A) 10 B) $5\sqrt{2}$ C) 5 D) 4 E) 2

24.



A, B ve F teğet noktalarıdır.

A, B and F are tangential points.

|DC| = 2 br, |ED| = 6 br, |AB| = 6 br, |FE| = x

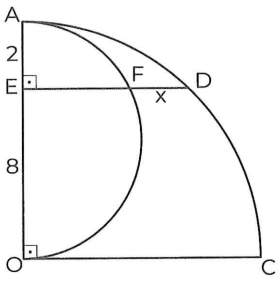
⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

PUZA ACADEMY

IRANINOVIN

25.



O merkezli çeyrek çember

A quarter circle with a center O

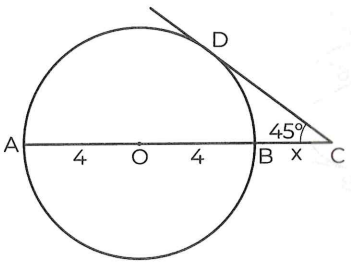
[AO] **çap** (diameter)

[DE] ⊥ [AO], |AE| = 2 br, |EO| = 8 br, |FD| = x

⇒ x = ?

A) 2 B) 3 C) 4 D) 5 E) 6

26.



O merkezli çember (A circle with a center O)

[CD doğrusu çembere D noktasında teğettir.

Line [CD is tangent to the circle on point D.

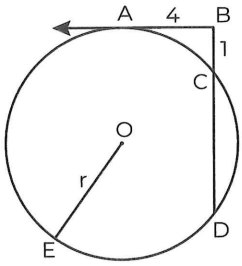
$m(\widehat{DCA}) = 45°$, |OB| = |OA| = 4 br, |BC| = x

⇒ x = ?

A) $6\sqrt{2} - 4$ B) $4\sqrt{2} + 4$ C) $4\sqrt{2} - 4$

D) $8\sqrt{2} - 4$ E) $8\sqrt{2} - 6$

27.



A, teğet noktasıdır.

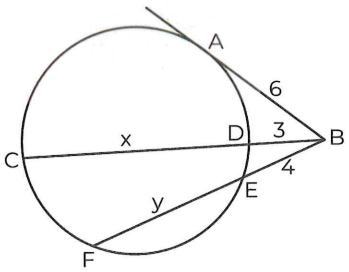
The point A is tangent to the circle.

O merkezli çember (A circle with a center O)

|AB| = 4 br, |BC| = 1 br, |OE| = r ⇒ r = ?

A) 7 B) 7,5 C) 8 D) 8,5 E) 9

28.



[AB] doğrusu çembere A noktasında teğettir.

Line [AB] is tangent to the circle on point A.

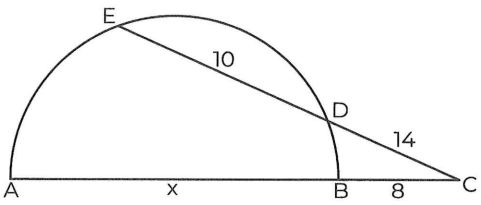
|AB| = 6 br, |DB| = 3 br, |BE| = 4 br, |DC| = x

|FE| = y ⇒ x − y = ?

A) 8 B) 7 C) 6 D) 5 E) 4

PUZA ACADEMY

29.



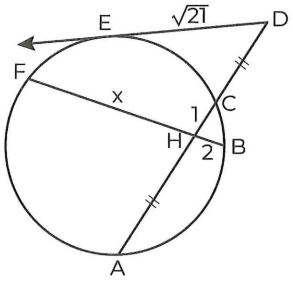
[AB] **çap** (diameter)

|ED| = 10 br, |DC| = 14 br, |BC| = 8 br, |AB| = x

⇒ x = ?

A) 32 B) 33 C) 34 D) 36 E) 38

30.



E, teğet noktasıdır.

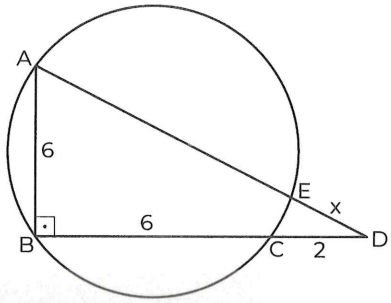
The point E is tangent to the circle.

|DC| = |HA|, |CH| = 1 br, |HB| = 2 br

|ED| = $\sqrt{21}$ br, |FH| = x ⇒ x = ?

A) $\frac{1}{2}$ B) 1 C) $\frac{3}{2}$ D) 2 E) $\frac{5}{2}$

31.

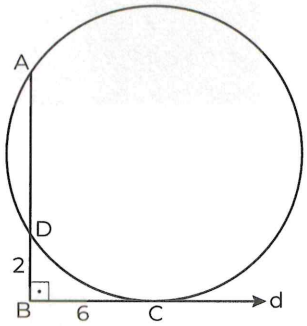


[AB] ⊥ [BD], |AB| = 6 br, |BC| = 6 br, |CD| = 2 br

|ED| = x ⇒ x = ?

A) 1,4 B) 1,5 C) 1,6 D) 1,7 E) 1,8

32.



d doğrusu C noktasında çembere teğet

Line d is tangential to the circle at the point C.

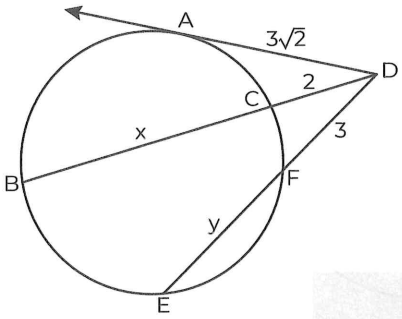
[AB] ⊥ [BC, |DB| = 2 br, |BC| = 6 br ⇒ r = ?

A) 6 B) 10 C) 12 D) 14 E) 16

PUZA ACADEMY

@galata1010
IRANINOVIN

33.



A, teğet noktasıdır.

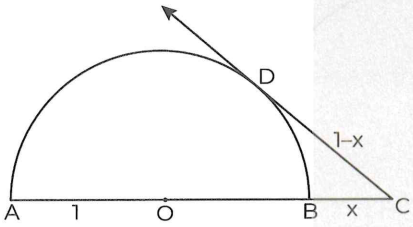
The point A is tangent to the circle.

$|AD| = 3\sqrt{2}$ br, $|CD| = 2$ br, $|DF| = 3$ br

$|BC| = x$, $|FE| = y \Rightarrow x + y = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

34.



D, teğet noktasıdır.

The point D is tangent to the circle.

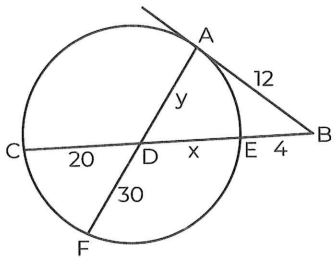
O merkezli yarım çember

A semi circle with a center O

$|DC| = 1 - x$, $|OA| = 1$ br, $|BC| = x \Rightarrow x = ?$

A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) $\frac{\sqrt{2}}{2}$ D) $\sqrt{3}$ E) $\frac{4}{5}$

35.



[BA doğrusu çembere A noktasında teğettir.

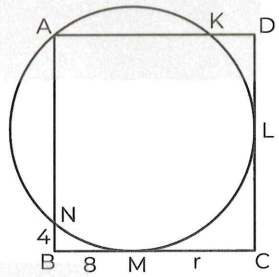
Line [BA is tangent to the circle on point A.

$|AB| = 12$ br, $|EB| = 4$ br, $|CD| = 20$ br

$|FD| = 30$ br, $|AD| = y$, $|DE| = x \Rightarrow x + y = ?$

A) 20 B) 18 C) 16 D) 14 E) 12

36.



M, teğet noktasıdır.

The point M is tangent to the circle.

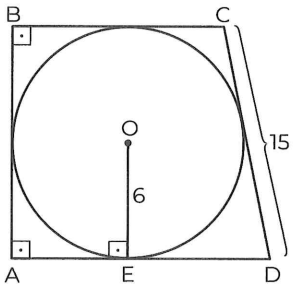
ABCD **dikdörtgen** (rectangle)

$|NB| = 4$ br, $|BM| = 8$ br, $|MC| = r \Rightarrow r = ?$

A) 15 B) 12 C) 10 D) 8 E) 5

PUZA ACADEMY

1.



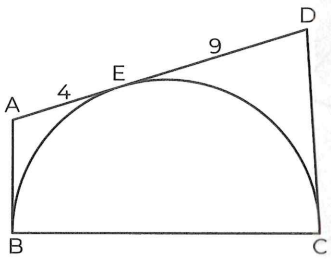
ABCD dik yamuk (right trapezoid)

[BC] // [AD] , |DC| = 15 br , |OE| = 6 br

⇒ **Alan**(Area) (ABCD) = ?

A) 144 B) 150 C) 156 D) 162 E) 168

2.

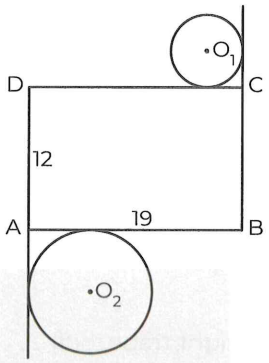


[BC] çaplı çember ([BC] diameter)

|AE| = 4 br , |ED| = 9 br ⇒ |BC| = ?

A) 6 B) 8 C) 10 D) 12 E) 16

3.



ABCD dikdörtgen (rectangle)

r_1 = 4 cm , r_2 = 8 cm , |AD| = 12 cm , |AB| = 19 cm

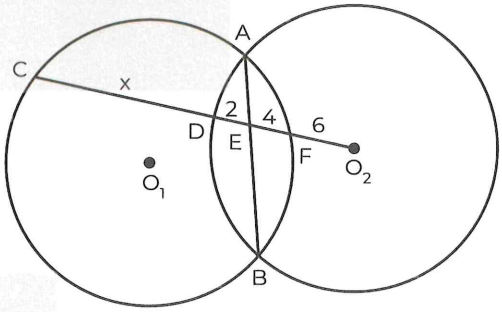
Çemberler arasındaki minimum uzaklık nedir?

What is the minimum distance between circles?

⇒ min(O_1O_2) = ?

A) 13 B) 15 C) 17 D) 20 E) 25

4.



O_1, O_2 merkezli çemberler

(O_1, O_2 are center of circles)

[AB] ∩ [O_2C] = {E} , |DE| = 2 br , |EF| = 4 br

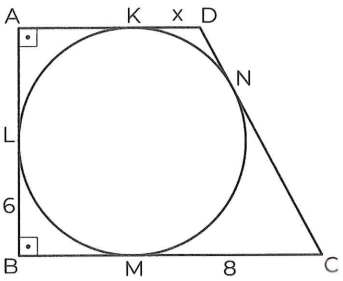
|O_2F| = 6 br , |CD| = x ⇒ x = ?

A) 6 B) 7 C) 8 D) 9 E) 10

PUZA ACADEMY

IRANINOVIN

5.

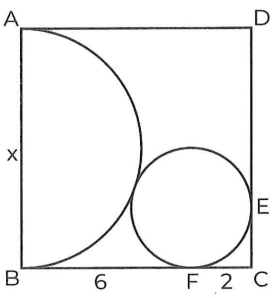


ABCD dik yamuk (ABCD right trapezoid)

|LB| = 6 br, |MC| = 8 br, |KD| = x ⇒ x = ?

A) $\frac{9}{2}$ B) 5 C) $\frac{13}{2}$ D) $\frac{15}{2}$ E) 9

6.



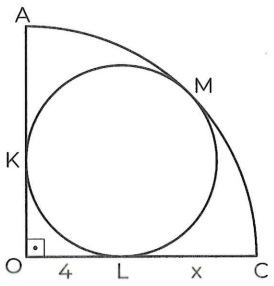
ABCD **dikdörtgen** (ABCD rectangle)

[AB] **çap** (diameter)

|BF| = 6 br, |FC| = 2 br, |AB| = x ⇒ x = ?

A) 5 B) 7 C) 9 D) 12 E) 14

7.



O merkezli çeyrek çember

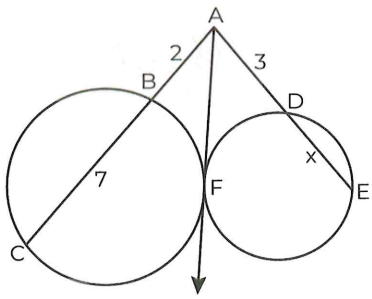
A quarter circle with a center O

[AO] ⊥ [OC], |OL| = 4 br, |LC| = x ⇒ x = ?

A) 2 B) $2\sqrt{2}$ C) 4 D) $4\sqrt{2}$ E) 8

PUZA ACADEMY

8.



F, teğet noktasıdır.

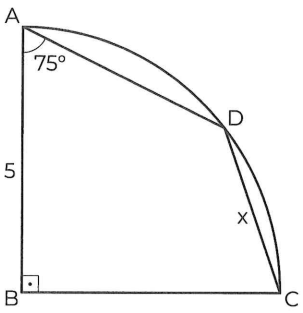
The point F is tangent to the circle.

|AB| = 2 br, |AD| = 3 br, |BC| = 7 br, |DE| = x

⇒ x = ?

A) 2 B) $2\sqrt{2}$ C) $2\sqrt{3}$ D) 3 E) 4

9.



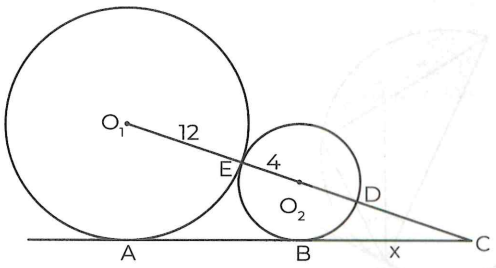
B merkezli çeyrek çember

A quarter circle with a center B

$m(\widehat{BAD}) = 75°$, $|AB| = 5$ br, $|DC| = x \Rightarrow x = ?$

A) $\sqrt{15}$ B) $2\sqrt{3}$ C) $\sqrt{10}$ D) 5 E) $\sqrt{7}$

10.



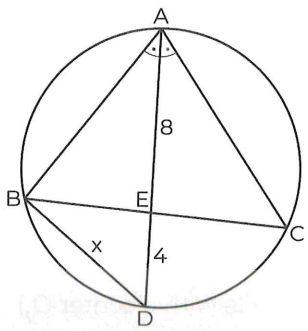
O_1 ve O_2 merkezli çemberler

The circles with centers O_1 and O_2

$|O_1E| = 12$ br, $|EO_2| = 4$ br, $|BC| = x \Rightarrow x = ?$

A) $8\sqrt{3}$ B) 8 C) $4\sqrt{3}$ D) 4 E) $2\sqrt{3}$

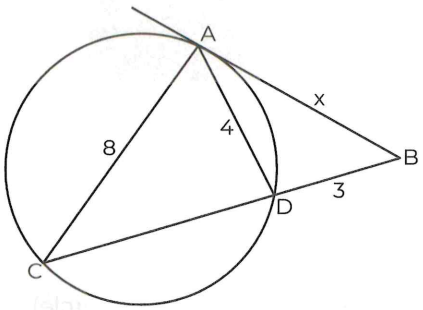
11.



$m(\widehat{BAD}) = m(\widehat{DAC})$, $|AE| = 8$ br, $|ED| = 4$ br, $|BD| = x \Rightarrow x = ?$

A) $12\sqrt{3}$ B) 12 C) $4\sqrt{3}$ D) 4 E) $2\sqrt{3}$

12.



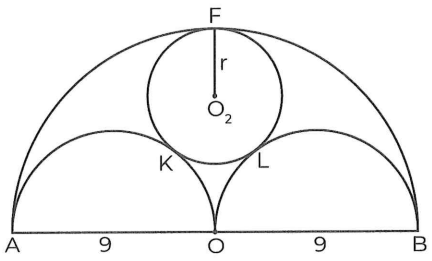
$|AC| = 8$ br, $|AD| = 4$ br, $|DB| = 3$ br, $|AB| = x \Rightarrow x = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

PUZA ACADEMY

IRANINOVIN

13.



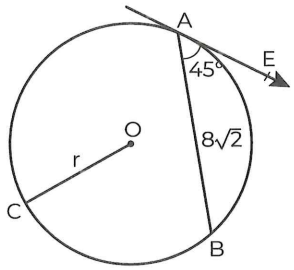
O_2 merkezli çember (A circle with a center O_2)

[AO], [OB] **çap** (diameter)

$|AO| = |OB| = 9$ br, $|FO_2| = r \Rightarrow r = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

14.



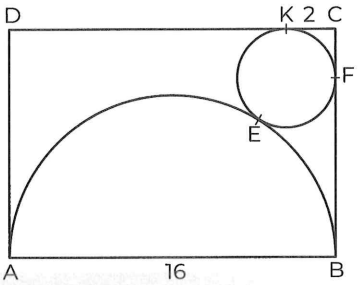
O merkezli çember (O, is the center of circle)

$m(\widehat{EAB}) = 45°$, $|AB| = 8\sqrt{2}$ br , $|OC| = r$

$\Rightarrow r = ?$

A) 4 B) $4\sqrt{2}$ C) 8 D) $8\sqrt{2}$ E) 16

15.

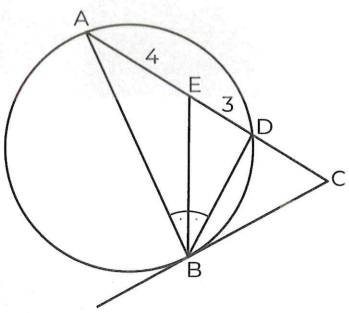


ABCD dikdörtgen (rectangle)

$|AB| = 16$ cm , $|KC| = 2$ cm $\Rightarrow |AD| = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

16.



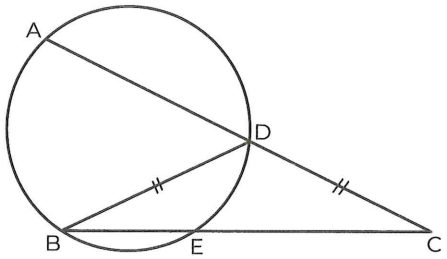
$m(\widehat{ABE}) = m(\widehat{EBD})$, $|AE| = 4$ cm

$|ED| = 3$ cm $\Rightarrow |DC| = ?$

A) 9 B) 10 C) 12 D) 15 E) 16

PUZA ACADEMY

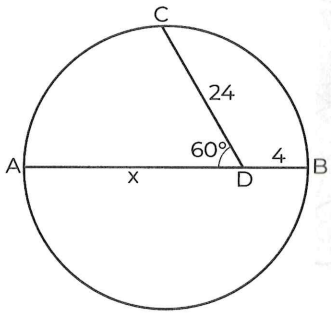
17.



$|CD| = |BD| = 8$, $m(\widehat{C}) = 30° \Rightarrow |BE| = ?$

A) $4\sqrt{3}$ B) $5\sqrt{3}$ C) $\frac{16\sqrt{3}}{3}$ D) $3\sqrt{3}$ E) $\frac{8\sqrt{3}}{3}$

18.



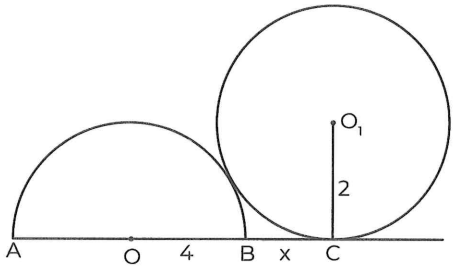
[AB] **çap** (diameter)

$m(\widehat{CDA}) = 60°$, $|CD| = 24$ br, $|DB| = 4$ br

$|AD| = x \Rightarrow x = ?$

A) 40 B) 39 C) 38 D) 36 E) 32

19.



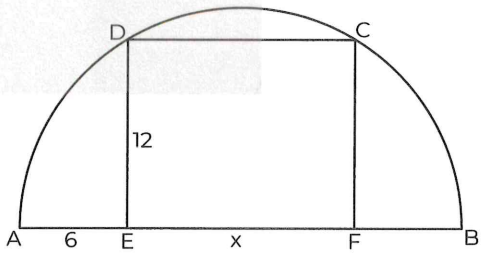
O ve O_1 merkezli çemberler

The circles with centers O and O_1.

$|O_1C| = 2$ br, $|OB| = 4$ br, $|BC| = x \Rightarrow x = ?$

A) $2\sqrt{2} - 2$ B) $2\sqrt{2} - 1$ C) $4\sqrt{2} - 4$
D) $4\sqrt{2} - 2$ E) $4\sqrt{2} - 1$

20.



[AB] **çap** (diameter)

EFCD **dikdörtgen** (rectangle)

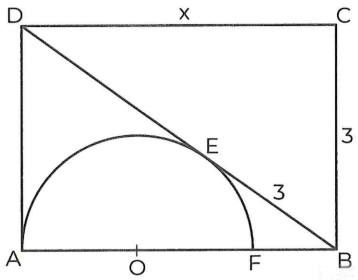
$|DE| = 12$ br, $|AE| = 6$ br, $|EF| = x \Rightarrow x = ?$

A) 18 B) 16 C) 15 D) 12 E) 9

PUZA ACADEMY

IRANINOVIN

21.



E, teğet noktasıdır.

The point E is tangent to the circle.

O merkezli yarım çember

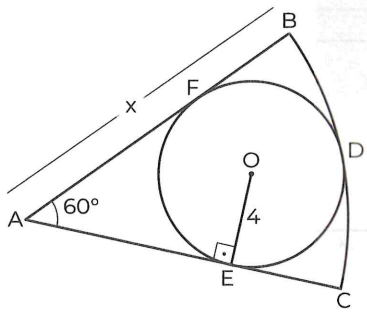
A semi circle with a center O

ABCD **dikdörtgen** (ABCD rectangle)

$|BC| = 3$ br, $|EB| = 3$ br, $|DC| = x \Rightarrow x = ?$

A) 3 B) $3\sqrt{3}$ C) 4 D) 6 E) $6\sqrt{3}$

22.



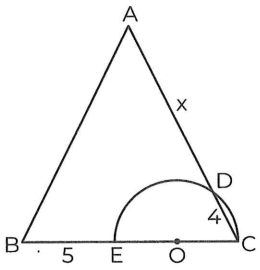
O merkezli çember (A circle with a center O)

$m(\widehat{BAC}) = 60°$, $[OE] \perp [AC]$, $|OE| = 4$ br

$|AB| = x \Rightarrow x = ?$

A) 6 B) 9 C) 12 D) 15 E) 18

23.



ABC eşkenar üçgen (equilateral triangle)

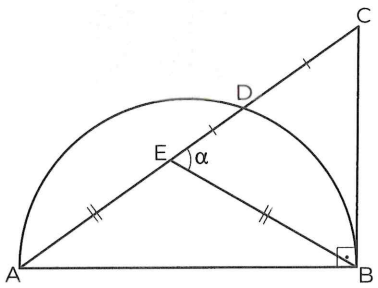
O merkezli yarım çember

A semi circle with a center O

$|DC| = 4$ br, $|BE| = 5$ br, $|AD| = x \Rightarrow x = ?$

A) 8 B) 9 C) 10 D) 11 E) 12

24.



[AB] **çap** (diameter)

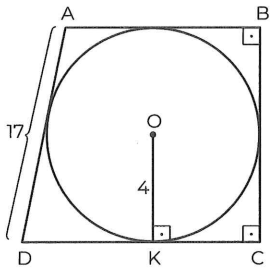
$[CB] \perp [AB]$, $|CD| = |DE|$, $|AE| = |EB|$

$m(\widehat{CEB}) = \alpha \Rightarrow \alpha = ?$

A) 120 B) 90 C) 60 D) 45 E) 30

PUZA ACADEMY

1.



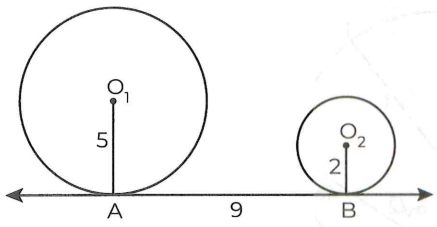
ABCD dik yamuk (right trapezoid)

[AB] // [CD] , |OK| = 4 br , |AD| = 17 br

⇒ **Alan**(Area) (ABCD) = ?

A) 81 B) 100 C) 120 D) 144 E) 169

2.



AB, O_1 ve O_2 merkezli çemberlere, A ve B noktalarında teğettir.

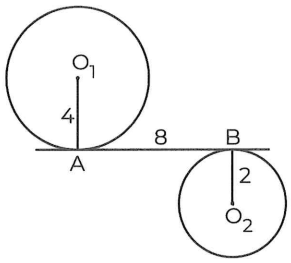
AB common external tangent on points A and B on the circles with center O_1 and O_2

$|O_1A| = 5$ cm , $|O_2B| = 2$ cm , $|AB| = 9$ cm

⇒ $|O_1O_2| = ?$

A) $3\sqrt{10}$ B) $4\sqrt{5}$ C) $6\sqrt{2}$ D) $2\sqrt{15}$ E) 12

3.



O_1 ve O_2 merkezli çemberler

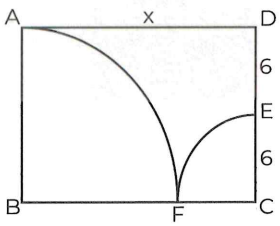
The circles with centers O_1 and O_2

$|O_1A| = 4$ br, $|O_2B| = 2$ br, $|AB| = 8$ br

⇒ $|O_1O_2| = ?$

A) 6 B) $6\sqrt{2}$ C) 8 D) $8\sqrt{2}$ E) 10

4.



ABCD **dikdörtgen** (ABCD rectangle)

B, C merkezli çeyrek çemberler

The quarter circles with centers B and C.

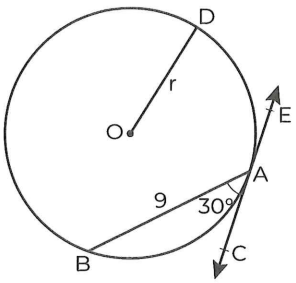
$|DE| = |CE| = 6$ br, $|AD| = x$ ⇒ $x = ?$

A) 24 B) 18 C) 16 D) 15 E) 12

PUZA ACADEMY

IRANINOVIN

5.



O merkezli çember (A circle with a center O)

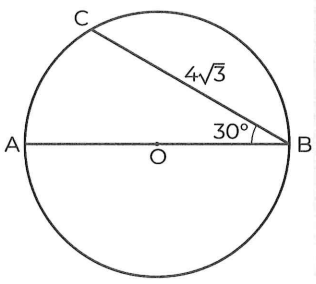
CE doğrusu çembere A noktasında teğettir.

Line CE is tangent to the circle on point A.

$m(\widehat{BAC}) = 30°$, $|BA| = 9$ br $\Rightarrow r = ?$

A) 18 B) $9\sqrt{3}$ C) 9 D) $6\sqrt{3}$ E) $3\sqrt{3}$

6.

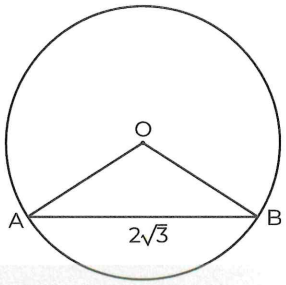


O merkezli çember (A circle with a center O)

$m(\widehat{CBA}) = 30°$, $|CB| = 4\sqrt{3}$ br $\Rightarrow |OA| = ?$

A) 1 B) $\frac{1}{2}$ C) 3 D) $\frac{3}{4}$ E) 4

7.

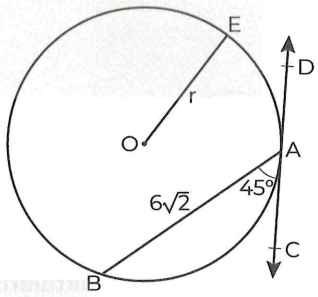


O merkezli çember (A circle with a center O)

$|AB| = 2\sqrt{3}$ br, $m(\widehat{AB}) = 120° \Rightarrow |AO| = ?$

A) 6 B) 5 C) 4 D) 3 E) 2

8.



O merkezli çember (A circle with a center O)

CD doğrusu çembere A noktasında teğettir.

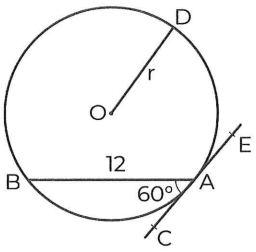
Line CD is tangential to the circle at the point A.

$m(\widehat{BAC}) = 45°$, $|AB| = 6\sqrt{2}$ br, $|OE| = r \Rightarrow r = ?$

A) 3 B) $3\sqrt{2}$ C) 6 D) $6\sqrt{4}$ E) 12

PUZA ACADEMY

9.



O merkezli çember (A circle with a center O)

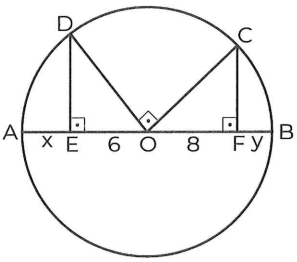
CE doğrusu çembere A noktasında teğettir.

Line CE is tangential to the circle at the point A.

$m(\widehat{BAC}) = 60°$, $|BA| = 12$ br, $|OD| = r \Rightarrow r = ?$

A) $12\sqrt{3}$ B) 12 C) $6\sqrt{3}$ D) 6 E) $4\sqrt{3}$

10.



O merkezli çember (A circle with a center O)

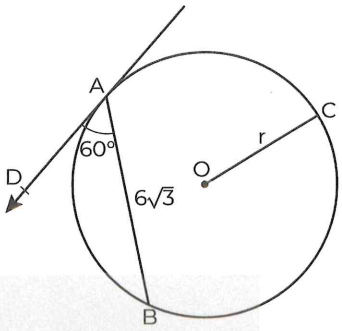
$[OD] \perp [OC]$, $[CF] \perp [AB]$, $[DE] \perp [AB]$

$|EO| = 6$ br, $|OF| = 8$ br, $|AE| = x$, $|FB| = y$

$\Rightarrow x + y = ?$

A) 2 B) 4 C) 6 D) 8 E) 10

11.



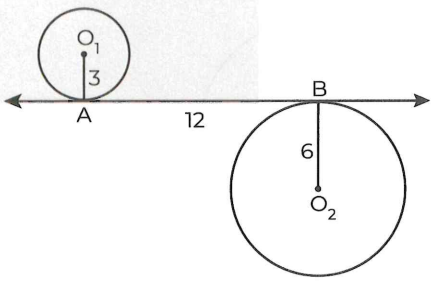
O merkezli çember (O, is the center of circle)

$m(\widehat{DAB}) = 60°$, $|AB| = 6\sqrt{3}$ br , $|OC| = r$

$\Rightarrow r = ?$

A) 3 B) $3\sqrt{3}$ C) 6 D) $6\sqrt{3}$ E) $6\sqrt{6}$

12.



AB, O_1 ve O_2 merkezli çemberlere, A ve B noktalarında teğettir.

AB common external tangent on points A and B on the circles with center O_1 and O_2.

$|O_1A| = 3$ cm , $|O_2B| = 6$ cm , $|AB| = 12$ cm

$\Rightarrow |O_1O_2| = ?$

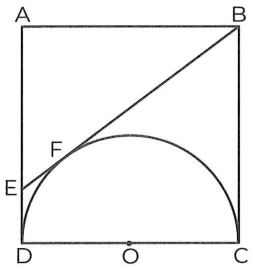
A) 9 B) 12 C) 15 D) 18 E) 21

PUZA ACADEMY

@galata1010

IRANINOVIN

13.



ABCD kare (square)

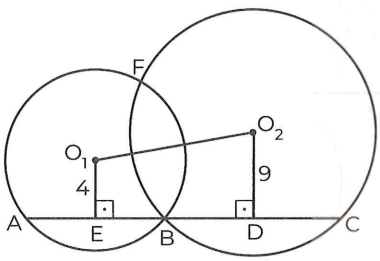
O merkezli yarım çember

O, is the center of semi circle

$|AB| = 8$ br $\Rightarrow |AE| = ?$

A) 5 B) $\frac{11}{2}$ C) 6 D) $\frac{13}{2}$ E) 7

14.

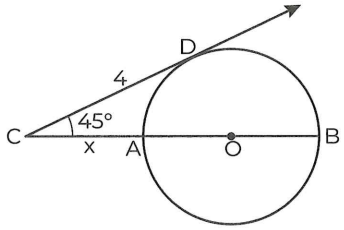


$[O_1E] \perp [AC]$, $[O_2D] \perp [AC]$, $|O_1E| = 4$ cm

$|O_2D| = 9$ cm , $|O_1O_2| = 13$ cm $\Rightarrow |AC| = ?$

A) 12 B) 16 C) 18 D) 24 E) 28

15.



O merkezli çeyrek çember

A circle with a center O

[CD] doğrusu çembere D noktasında teğettir.

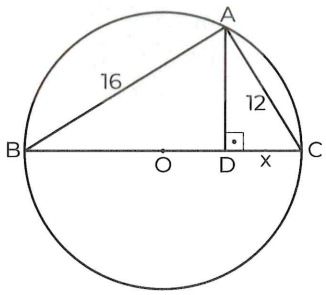
Line [CD] is tangent to the circle on points D.

$m(\widehat{DCB}) = 45°$, $|CD| = 4$ br , $|AC| = x \Rightarrow x = ?$

A) $4\sqrt{2} - 4$ B) $4 - 4\sqrt{2}$ C) $4 - 2\sqrt{2}$
D) $4 + 2\sqrt{2}$ E) $4\sqrt{2} + 8$

PUZA ACADEMY

16.



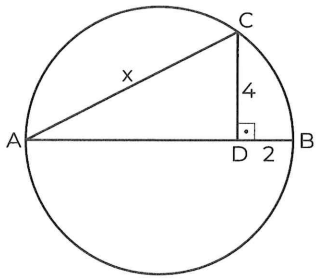
O merkezli çember (A circle with a center O)

$[AD] \perp [BC]$, $|AB| = 16$ br, $|AC| = 12$ br, $|DC| = x$

$\Rightarrow x = ?$

A) 1,8 B) 2,4 C) 3,6 D) 4,8 E) 7,2

17.



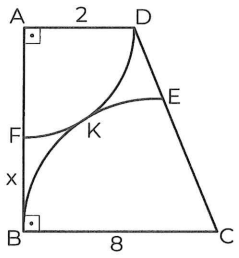
[AB] **çap** (diameter)

[CD] ⊥ [AB], |CD| = 4 br, |DB| = 2 br, |AC| = x

⇒ x = ?

A) 2 B) $2\sqrt{5}$ C) 4 D) $4\sqrt{5}$ E) 8

18.



A merkezli çeyrek çember

A circle with a center A

C merkezli çember dilimi

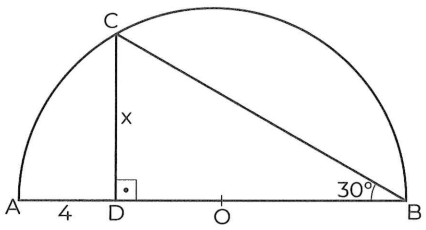
C is the center of circle slice

[AB] ⊥ [BC], |AD| = 2 br, |BC| = 8 br, |FB| = x

⇒ x = ?

A) 1 B) $\frac{3}{2}$ C) 2 D) $\frac{5}{2}$ E) 4

19.



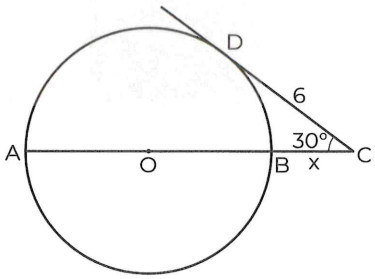
[AB] **çap** (diameter)

$m(\widehat{CBA}) = 30°$, [CD] ⊥ [AB], |AD| = 4 br

|CD| = x ⇒ x = ?

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) $4\sqrt{3}$ D) $5\sqrt{3}$ E) $6\sqrt{3}$

20.



O merkezli çember (A circle with a center O)

[CD] doğrusu çembere D noktasında teğettir.

Line [CD] is tangential to the circle at the point D.

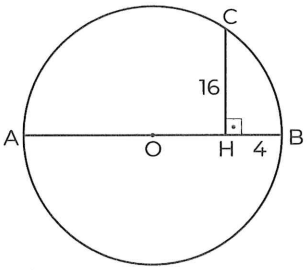
$m(\widehat{DCA}) = 30°$, |DC| = 6 br, |BC| = x ⇒ x = ?

A) $\sqrt{3}$ B) $2\sqrt{3}$ C) 4 D) $4\sqrt{3}$ E) 6

PUZA ACADEMY

IRANINOVIN

21.

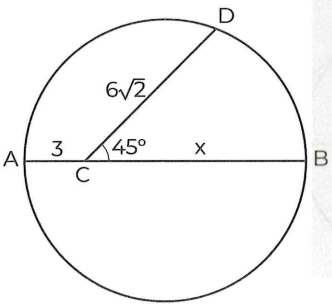


O merkezli çember (A circle with a center O)

$[CH] \perp [AB]$, $|CH| = 16$ br, $|HB| = 4$ br $\Rightarrow |OA| = ?$

A) 20 B) 25 C) 30 D) 34 E) 40

22.



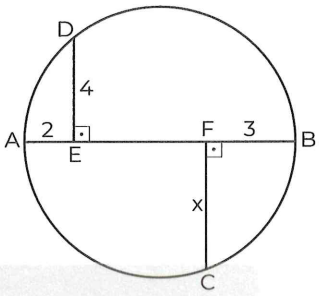
[AB] **çap** (diameter)

$m(\widehat{DCB}) = 45°$, $|DC| = 6\sqrt{2}$ br, $|AC| = 3$ br

$|CB| = x \Rightarrow x = ?$

A) 18 B) 16 C) 14 D) 12 E) 10

23.



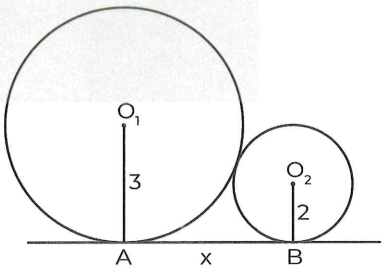
[AB] **çap** (diameter)

$[DE] \perp [AB]$, $[FC] \perp [AB]$, $|DE| = 4$ br, $|AE| = 2$ br

$|FB| = 3$ br, $|FC| = x \Rightarrow x = ?$

A) $\sqrt{23}$ B) $\sqrt{22}$ C) $\sqrt{21}$ D) $\sqrt{7}$ E) $\sqrt{5}$

24.



O_1 ve O_2 merkezli çemberler

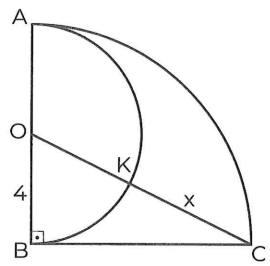
The circles with centers O_1 and O_2.

$|O_1A| = 3$ br, $|O_2B| = 2$ br, $|AB| = x \Rightarrow x = ?$

A) $\sqrt{6}$ B) $2\sqrt{6}$ C) 6 D) $6\sqrt{2}$ E) 12

PUZA ACADEMY

25.



O merkezli yarım çember

A semi circle with a center O

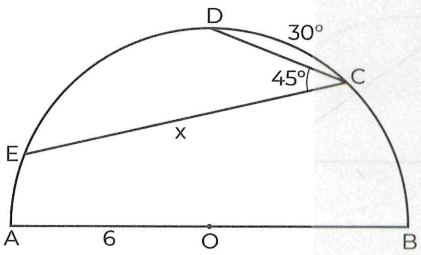
B merkezli çeyrek çember

A quarter circle with a center B

$|OB| = 4$ br, $|KC| = x \Rightarrow x = ?$

A) $4\sqrt{2} - 4$ B) $4\sqrt{5} - 4$ C) $4\sqrt{5} + 2$
D) $4\sqrt{2} + 4$ E) $4\sqrt{5} + 5$

26.



O merkezli yarım çember

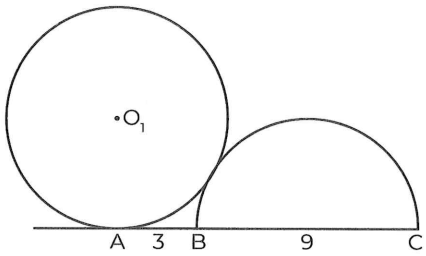
A semi circle with a center O

$m(\widehat{ECD}) = 45°$, $m(\widehat{DC}) = 30°$, $|AO| = 6$ br

$|EC| = x \Rightarrow x = ?$

A) 6 B) $6\sqrt{2}$ C) $6\sqrt{3}$ D) 12 E) $12\sqrt{3}$

27.



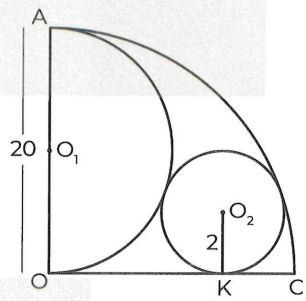
[BC] **çap** (diameter)

O_1 merkezli çember (circle with a center O_1)

$|BC| = 9$ br, $|AB| = 3$ br $\Rightarrow r_1 = ?$

A) 5 B) 4 C) 3 D) 2 E) 1

28.



O merkezli çeyrek çember (A quarter circle with a center O)

O_1 merkezli yarım çember (A semi circle with a center O_1)

O_2 merkezli çember (A circle with a center O_2)

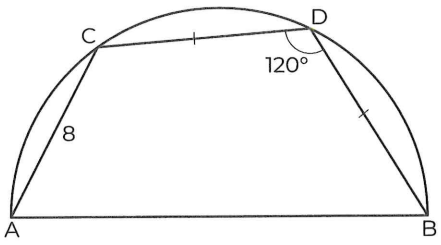
$|AO| = 20$ br, $|O_2K| = 2$ br $\Rightarrow |OK| = ?$

A) $10\sqrt{5}$ B) $8\sqrt{5}$ C) $6\sqrt{5}$ D) $5\sqrt{5}$ E) $4\sqrt{5}$

PUZA ACADEMY

IRANINOVIN

29.



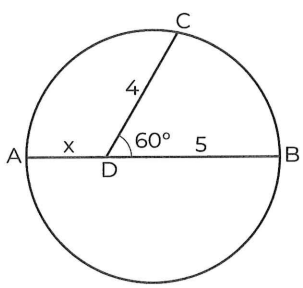
[AB] **çap** (diameter)

$m(\widehat{CDB}) = 120°$, $|CD| = |DB|$, $|AC| = 8$ br

$\Rightarrow |AB| = ?$

A) 24 B) 22 C) 20 D) 18 E) 16

30.



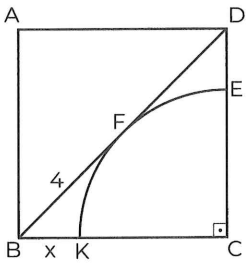
[AB] **çap** (diameter)

$m(\widehat{CDB}) = 60°$, $|CD| = 4$ br, $|DB| = 5$ br

$|AD| = x \Rightarrow x = ?$

A) 1 B) $\frac{3}{2}$ C) 2 D) $\frac{5}{2}$ E) 3

31.



ABCD **kare** (square)

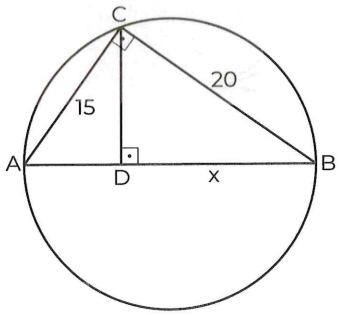
C merkezli çeyrek çember

A quarter circle with a center C

$|FB| = 4$ br, $|BK| = x \Rightarrow x = ?$

A) $8\sqrt{2} - 8$ B) $8\sqrt{2} - 4$ C) $4\sqrt{2} - 4$
D) $4\sqrt{2} - 6$ E) $4\sqrt{2} + 4$

32.



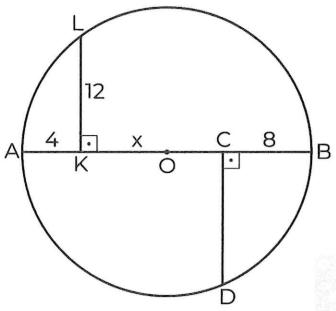
$[AC] \perp [CB]$, $[CD] \perp [AB]$, $|CB| = 20$ br

$|CA| = 15$ br, $|DB| = x \Rightarrow x = ?$

A) 18 B) 16 C) 15 D) 12 E) 9

PUZA ACADEMY

33.



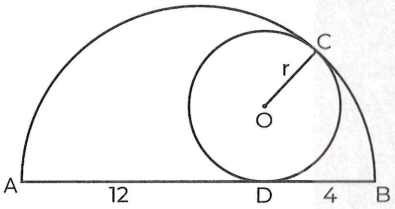
O merkezli çember (A circle with a center O)

$[LK] \perp [AB]$, $[DC] \perp [AB]$, $|LK| = 12$ br, $|AK| = 4$ br

$|CB| = 8$ br, $|OK| = x \Rightarrow x = ?$

A) 4 B) 6 C) 8 D) 12 E) 16

34.



D ve C teğet noktalarıdır.

The points D and C are tangential points.

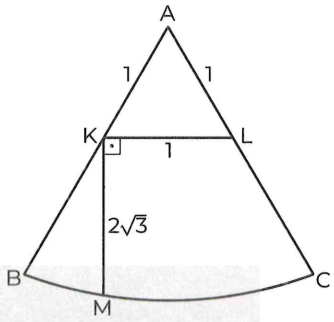
[AB] **çap** (diameter)

O merkezli çember (A circle with a center O)

$|DB| = 4$ br, $|AD| = 12$ br, $|OC| = r \Rightarrow r = ?$

A) 3 B) $\frac{5}{2}$ C) 2 D) $\frac{3}{2}$ E) 1

35.



A merkezli çember dilimi

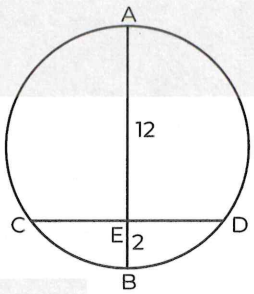
A is the center of circle slice

$[LK] \perp [KM]$, $|AL| = |LK| = |KA| = 1$ br

$|KM| = 2\sqrt{3}$ br, $|AB| = r \Rightarrow r = ?$

A) $\sqrt{15}$ B) $\sqrt{19}$ C) $\sqrt{21}$ D) $\sqrt{23}$ E) 5

36.



$[AB] \cap [CD] = \{E\}$, $3 \cdot |CE| = 2 \cdot |ED|$, $|EB| = 2$ br

$|AE| = 12$ br $\Rightarrow |CD| = ?$

A) 4 B) 6 C) 8 D) 10 E) 14

PUZA ACADEMY

IRANINOVIN

LENGTH ON THE CIRCLE

ÇEMBERDE UZUNLUK

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
E	B	B	C	C	E	B	E	E	E	C	B

13	14	15	16	17	18	19	20	21	22	23	24
E	B	A	C	E	B	D	C	E	A	C	A

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
D	E	B	E	C	D	A	C	C	E	D	E

13	14	15	16	17	18	19	20	21	22	23	24
A	B	D	A	A	D	B	C	C	A	C	A

25	26	27	28	29	30	31	32	33	34	35	36
A	C	D	E	C	C	C	B	B	A	A	C

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	D	E	D	A	C	D	D	D	C	C	B

13	14	15	16	17	18	19	20	21	22	23	24
C	C	E	A	E	B	C	A	B	C	B	C

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
B	A	E	B	C	E	E	C	E	C	C	C

13	14	15	16	17	18	19	20	21	22	23	24
C	D	A	E	D	E	C	B	D	E	C	B

25	26	27	28	29	30	31	32	33	34	35	36
B	C	B	E	E	C	C	B	E	A	B	D

NOTES:

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NOTES:

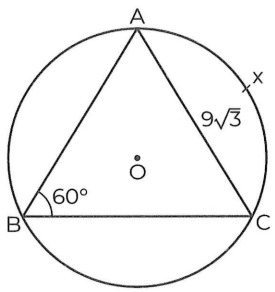
AREA OF CIRCLE

DAİREDE ALAN

CHAPTER | BÖLÜM 20

IRANINOVIN

1.

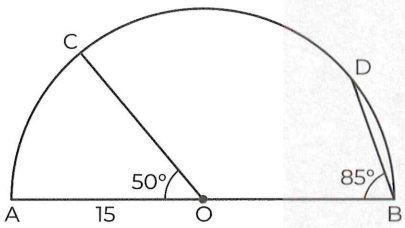


O merkezli çember (O, is the center of circle)

$m(\widehat{ABC}) = 60°$, $|AC| = 9\sqrt{3}$ br $\Rightarrow |\widehat{AxC}| = ?$

A) 3π B) 5π C) 6π D) 8π E) 9π

2.



O merkezli yarım çember

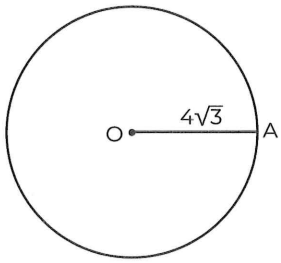
O, is the center of the semi circle

$m(\widehat{AOC}) = 50°$, $m(\widehat{ABD}) = 85°$, $|AO| = 15$ br

$\Rightarrow |\widehat{CD}| = ?$

A) 5π B) 7π C) 10π D) 12π E) 15π

3.



O merkezli daire (O, is the center of circle)

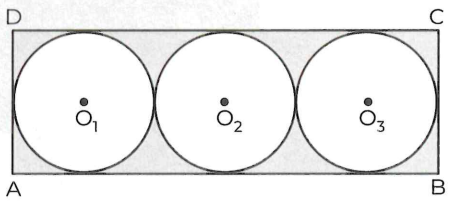
$|OA| = 4\sqrt{3}$ br

$\Rightarrow$ **Dairenin alanı kaç br^2 dir?**

What is the value of area of circle?

A) $8\sqrt{3}\,\pi$ B) 16π C) $16\sqrt{3}\,\pi$ D) 24π E) 48π

4.



ABCD dikdörtgen (rectangle)

Çevre (circumference) (ABCD) = 32 br

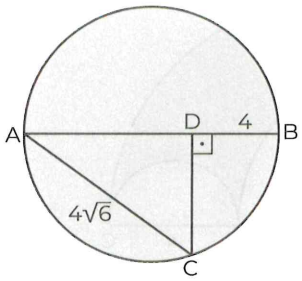
$\Rightarrow$ **Taralı bölgenin alanı kaç br^2 dir?**

What is the area of shaded region?

A) $72 - 12\pi$ B) $60 - 8\pi$ C) $54 - 12\pi$
D) $48 - 12\pi$ E) $48 - 8\pi$

PUZA ACADEMY

5.



[AB] çaplı daire ([AB] diameter)

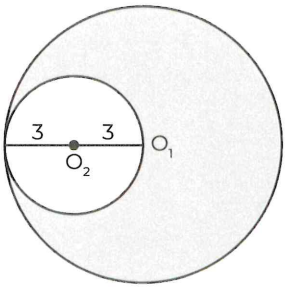
[CD] ⊥ [AB] , |BD| = 4 br , $|AC| = 4\sqrt{6}$ br

⇒ **Taralı alan kaç br² dir?**

What is the shaded area?

A) 16π B) 25π C) 36π D) 49π E) 64π

6.



O_1 ve O_2 merkezli çemberler

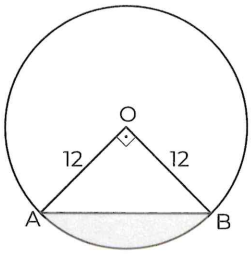
O_1, O_2 are the center of the circles

⇒ **Taralı bölgenin alanı kaç π br² dir?**

What is the area of shaded region?

A) 20π B) 24π C) 27π D) 30π E) 36π

7.



O merkezli çember

O, is the center of the circle

$|AO| = |OB| = 12$ br, $m(\widehat{AOB}) = 90°$

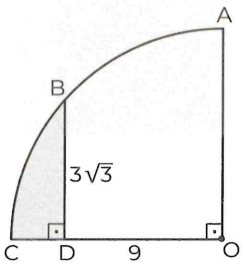
⇒ **Taralı alan kaçtır?**

What is the area of the shaded region?

A) $18\pi - 72$ B) $18\pi - 18$ C) $9\pi - 36$

D) $36\pi - 72$ E) $9\pi - 18$

8.



O merkezli çeyrek daire

O, is the center of the quadrant circle

[BD] ⊥ [OC] , $|BD| = 3\sqrt{3}$ br , |OD| = 9 br

⇒ **Taralı alan kaç br² dir?**

What is the shaded area?

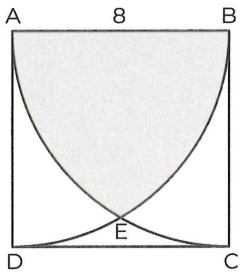
A) $9\pi - \frac{27\sqrt{3}}{2}$ B) $9\pi + \frac{27\sqrt{3}}{2}$ C) $18\pi - \frac{3\sqrt{3}}{2}$

D) $18\pi + \frac{3\sqrt{3}}{2}$ E) $27\pi - \frac{3\sqrt{3}}{2}$

PUZA ACADEMY

IRANINOVIN

9.



A ve B merkezli çeyrek çemberler

A and B are center of the circles

|AB| = 8 br

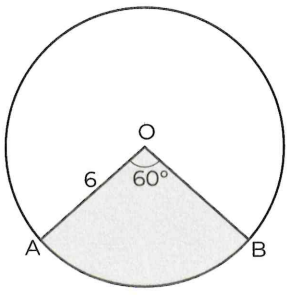
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $\frac{32\pi}{3}-6\sqrt{3}$ B) $\frac{32\pi}{3}+16\sqrt{3}$ C) $\frac{64\pi}{3}-16\sqrt{3}$

D) $\frac{64\pi}{3}+16\sqrt{3}$ E) $64\pi-16\sqrt{3}$

10.



O merkezli çember

O, is the center of the circle

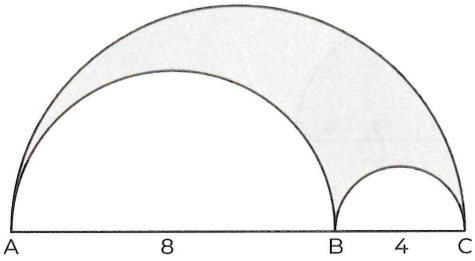
$m(\widehat{AOB}) = 60°$, |OA| = 6 br

⇒ **Taralı alan kaç br² dir?**

What is the value of shaded area?

A) 4π B) 6π C) 12π D) 18π E) 36π

11.



[AB], [BC], [AC] çaplı yarım çemberler

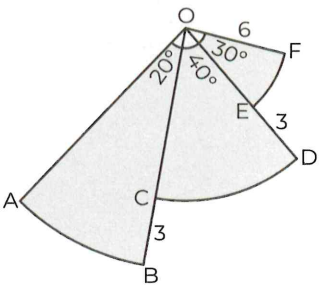
[AB], [BC], [AC] are diameters of semi circles

|AB| = 8 br, |BC| = 4 br

⇒ **Taralı alan** (Shaded area) = ?

A) 8π B) 10π C) 16π D) 20π E) 28π

12.



$m(\widehat{AOB}) = 20°$, $m(\widehat{COD}) = 40°$, $m(\widehat{EOF}) = 30°$

|BC| = 3 br, |DE| = 3 br, |OF| = 6 br

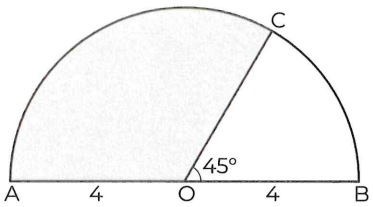
⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded area?

A) 18π B) 19π C) 20π D) 21π E) 22π

PUZA ACADEMY

13.



O merkezli yarım çember

O, is the semi center of the circle

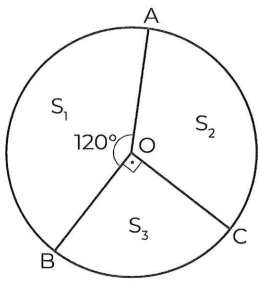
$|AO| = |OB| = 4$ br, $m(\widehat{COB}) = 45°$

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) 6π B) 8π C) 10π D) 12π E) 16π

14.



O merkezli çember

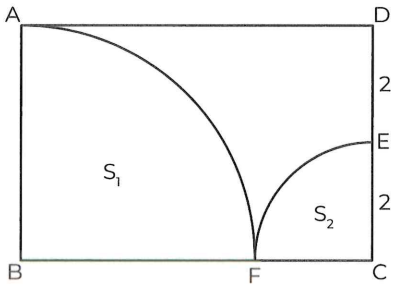
O, is the center of the circle

$m(\widehat{BOC}) = 90°$, $m(\widehat{AOB}) = 120°$

$\Rightarrow \frac{S_1 + S_2}{S_3} = ?$

A) 9 B) 8 C) 7 D) 6 E) 3

15.



ABCD **dikdörtgen** (rectangle)

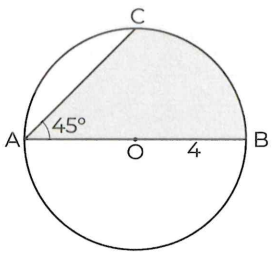
B, C merkezli çeyrek çember

B, C are the center of the quarter circles

$|DE| = |EC| = 2$ br $\Rightarrow S_1 + S_2 = ?$

A) 2π B) 3π C) 4π D) 5π E) 6π

16.



O merkezli çember (O, is the center of the circle)

$m(\widehat{CAB}) = 45°$, $|OB| = 4$ br

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

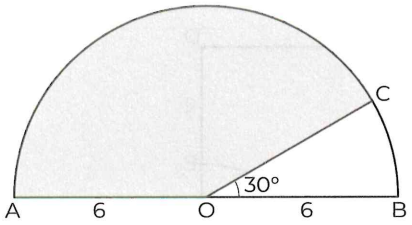
A) $4 + 4\pi$ B) $4\pi - 4$ C) $8\pi - 4$

D) $8\pi - 2$ E) $8 + 4\pi$

PUZA ACADEMY

IRANINOVIN

17.



O merkezli yarım çember

O, is the center of the semi circle

$|AO| = |OB| = 6$ br, $m(\widehat{COB}) = 30°$

⇒ **Taralı alan kaçtır?**

What is the area of the shaded region?

A) 6π B) 12π C) 15π D) 36π E) 72π

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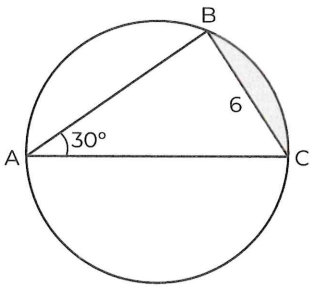
18.



[AC] çap (Diameter)

$m(\widehat{BAC}) = 30°$, $|BC| = 6$ br

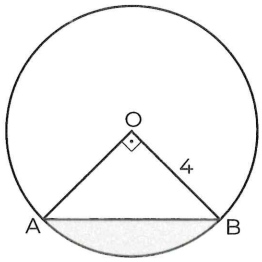
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded area?

A) 12 B) $6\pi - 9\sqrt{3}$ C) $6\pi + 9\sqrt{3}$

D) $9\sqrt{3} - 6\pi$ E) $12\pi - 9\sqrt{3}$

19.



O merkezli çember (O, is the center of the circle)

$m(\widehat{AOB}) = 90°$, $|OB| = 4$ br

⇒ **Taralı alan kaç br² dir?**

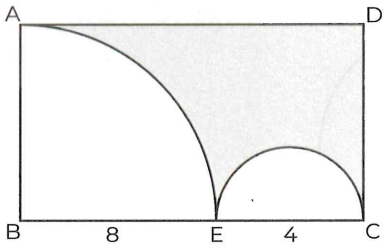
What is the value of shaded area?

A) $4\pi - 4$ B) $4\pi - 8$ C) $4\pi + 8$

D) $4\pi + 4$ E) $8\pi - 4$

PUZA ACADEMY

20.



ABCD **dikdörtgen** (rectangle)

B çeyrek çember (B, quadrant circle)

[EC] **çap** (diameter), $|BE| = 8$ br, $|EC| = 4$ br

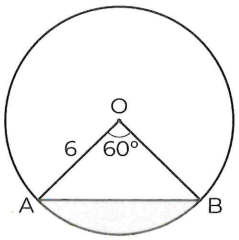
⇒ **Taralı alan kaç br² dir?**

What is the value of shaded area?

A) $48 - 8\pi$ B) $48 - 9\pi$ C) $60 - 10\pi$

D) $96 - 24\pi$ E) $96 - 18\pi$

21.



O merkezli çemberler

O, is the center of the circle

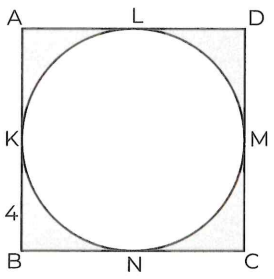
$m(\widehat{AOB}) = 60°$

⇒ **Taralı alan** (Shaded area) = ?

A) $6\pi - 9\sqrt{3}$ B) $6\pi - 3\sqrt{3}$ C) $9\pi - 9\sqrt{3}$

D) $9\pi - 6\sqrt{3}$ E) $9\pi - 3\sqrt{3}$

22.



$|KB| = 4$ br

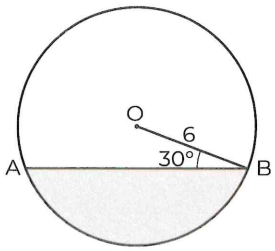
⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded areas?

A) $4\pi - 8$ B) $16 - 8\pi$ C) $64 - 16\pi$

D) $32 - 8\pi$ E) $32 - 4\pi$

23.



O merkezli çember

O, is the center of the circle

$m(\widehat{OBA}) = 30°$, $|OB| = 6$ br

⇒ **Taralı alan kaç br² dir?**

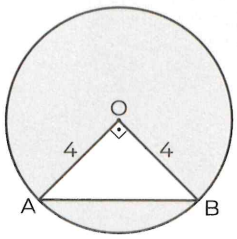
What is the area of shaded region?

A) $12\pi - 9\sqrt{3}$ B) 6π C) $6\pi + 9\sqrt{3}$

D) $6\pi - 9\sqrt{3}$ E) $12\pi - 6\sqrt{3}$

PUZA ACADEMY

24.



O merkezli çember

O, is the center of the circle

$m(\widehat{AOB}) = 90°$, $|OA| = |OB| = 4$ br

⇒ **Taralı alan kaç br² dir?**

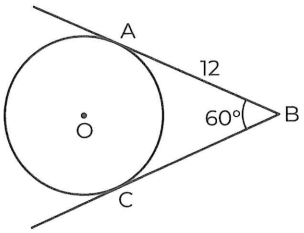
What is the area of shaded region?

A) $8\pi - 8$ B) $8\pi - 4$ C) $12\pi - 4$

D) $16\pi - 8$ E) $16\pi - 4$

IRANINOVIN

1.



[BA ve [BC, O merkezli çembere A ve C noktalarında teğettir.

Line [BA and [BC tangent to circle with a center O and points A and C.

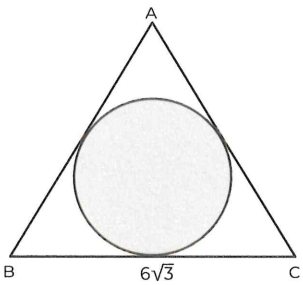
$m(\widehat{ABC}) = 60°$, $|AB| = 12$ br

⇒ **O merkezli çemberin çevresi nedir?**

What is the circumference of circle which center is O?

A) 4π B) $4\sqrt{3}\pi$ C) $6\sqrt{3}\pi$ D) 8π E) $8\sqrt{3}\pi$

2.



ABC eşkenar üçgen (equilateral triangle)

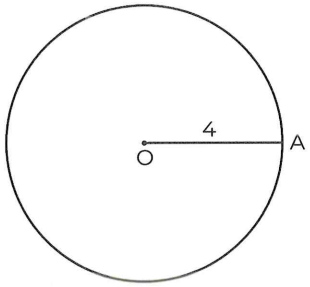
$|BC| = 6\sqrt{3}$ br

⇒ **Taralı bölgenin alanı kaç br^2 dir?**

What is the value of shaded region?

A) 9π B) $9\sqrt{3}\pi$ C) 9 D) $18\sqrt{3}\pi$ E) 18π

3.



O merkezli çember

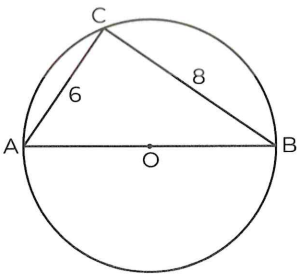
O, is the center of the circle

$|OA| = 4$ br

⇒ **Dairenin alanı** (Shaded area) = ?

A) 64π B) 32π C) 16π D) 8π E) 4π

4.



O merkezli çember

O, is the center of the circle

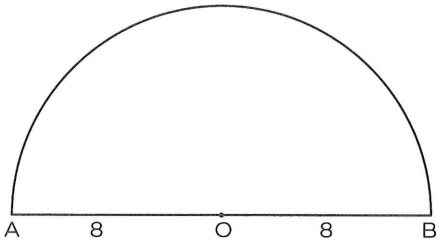
$|AC| = 6$ br, $|CB| = 8$ br

⇒ **Dairenin alanı** (Shaded area) = ?

A) 10π B) 16π C) 25π D) 36π E) 50π

PUZA ACADEMY

5.

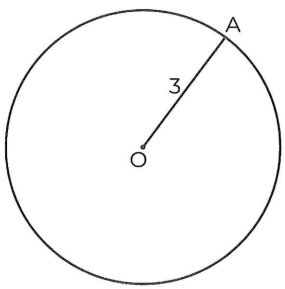


Yarım dairenin alanı kaç π br² dir?

What is the area of semi circle?

A) 9π B) 18π C) 20π D) 32π E) 64π

6.



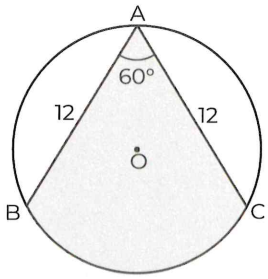
|OA| = 3 br

⇒ **Dairenin alanı kaç π br² dir?**

What is the area of circle?

A) 16π B) 15π C) 12π D) 10π E) 9π

7.



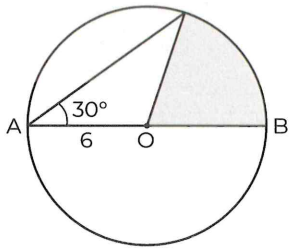
$m(\widehat{BAC}) = 60°$, |AB| = |AC| = 12 br

⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) $16\pi + 24\sqrt{3}$ B) $16\pi + 16\sqrt{3}$ C) $24\pi + 24\sqrt{3}$
D) $12\pi + 18\sqrt{3}$ E) $12\pi + 24\sqrt{3}$

8.



|AB| çap ise taralı alan?

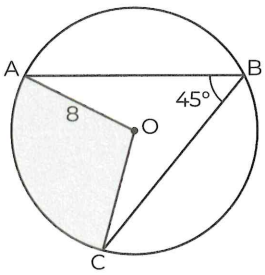
If |AB| is the diameter, find the area of shaded region?

A) 3π B) 4π C) 5π D) 6π E) π

PUZA ACADEMY

IRANINOVIN

9.



O merkezli daire (O, is the center of the circle)

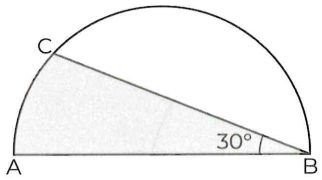
$m(\widehat{ABC}) = 45°$, $|OA| = 8$ br

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) 10π B) 14π C) 16π D) 18π E) 20π

11.



[AB] yarım dairenin çapı

[AB] diameter of the semi circle

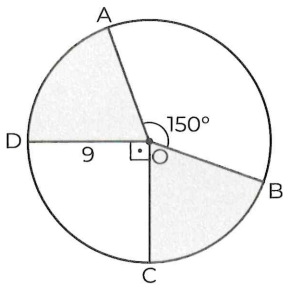
$m(\widehat{ABC}) = 30°$, $|AB| = 6\sqrt{3}$ br

⇒ **Taralı alan** (Shaded area) = ?

A) $\frac{9\pi}{2} - \frac{27\sqrt{3}}{4}$ B) $\frac{9\pi}{2} - \frac{27\sqrt{3}}{2}$ C) $\frac{9\pi}{2} + \frac{27\sqrt{3}}{4}$

D) $\frac{9\pi}{2} + \frac{27\sqrt{3}}{2}$ E) $\frac{9\pi}{2}$

10.



O merkezli daire (O, is the center of the circle)

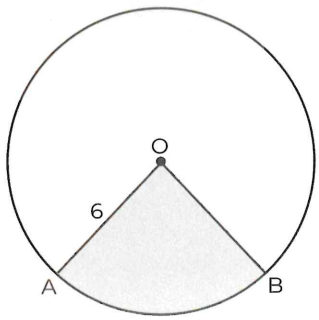
$m(\widehat{COD}) = 90°$, $m(\widehat{AOB}) = 150°$, $|OD| = 9$ br

⇒ **Taralı bölgenin alanları toplamı kaç br² dir?**

What is the sum of the shaded area?

A) 18π B) 27π C) 45π D) 64π E) 81π

12.



O merkezli daire

O, is the center of the circle

$|OA| = 6$ br , $|\widehat{AB}| = 8\pi$ br

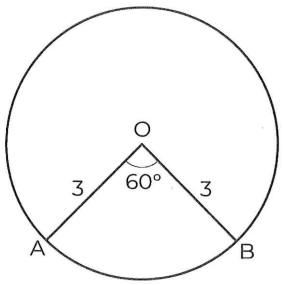
⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) 6π B) 24π C) 9π D) 12π E) 48

PUZA ACADEMY

13.



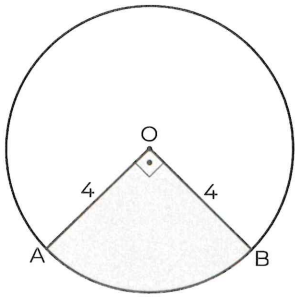
O merkezli çember

O, is the center of the circle

$|AO| = |OB| = 3$ br, $m(\widehat{AOB}) = 60° \Rightarrow |\widehat{AB}| = ?$

A) 6π B) 4π C) 3π D) 2π E) π

14.



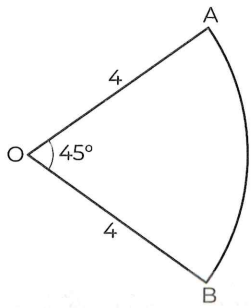
O merkezli çember

O, is the center of the circle

$|AO| = |OB| = 4$ br $\Rightarrow |\widehat{AB}| = ?$

A) 2π B) 4π C) $2\pi + 8$ D) $4\pi + 8$ E) $2\pi - 8$

15.



$|OA| = |OB| = 4$ br, $m(\widehat{AOB}) = 45°$

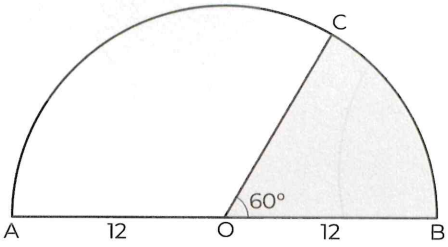
⇒ **Daire diliminin alanı kaç π br^2 dir?**

What is the area of circle slice?

A) 12π B) 8π C) 6π D) 4π E) 2π

PUZA ACADEMY

16.



O merkezli çember

O, is the center of the circle

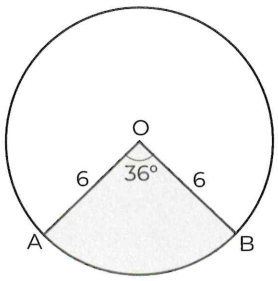
$|AO| = |OB| = 12$ br, $m(\widehat{COB}) = 60°$

⇒ **Taralı alan** (Shaded area) = ?

A) 12π B) 15π C) 18π D) 21π E) 24π

IRANINOVIN

17.



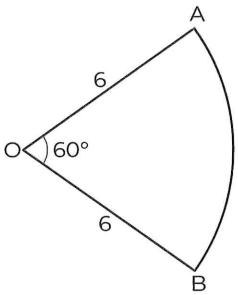
O merkezli çember (O, is the center of the circle)

$m(\widehat{AOB}) = 36°$, $|AO| = 6$ br

⇒ **Taralı alan** (Shaded area) = ?

A) $\frac{9\pi}{5}$ B) $\frac{18\pi}{5}$ C) 4π D) $\frac{16\pi}{5}$ E) 8π

18.



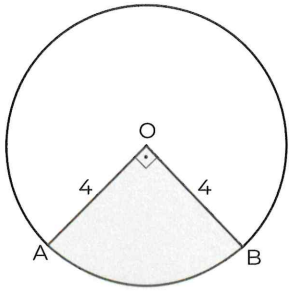
$|OA| = |OB| = 6$ br, $m(\widehat{AOB}) = 60°$

⇒ **Daire diliminin alanı kaç π br^2 dir?**

What is the area of circle slice?

A) 12π B) 8π C) 6π D) 4π E) 2π

19.



O merkezli çember

O, is the center of the circle

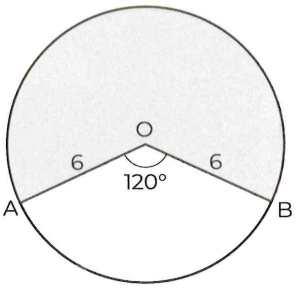
$|OA| = |OB| = 4$ br

⇒ **Taralı alan kaç π br^2 dir?**

What is the area of shaded region?

A) 4π B) 8π C) 10π D) 16π E) 20π

20.



O merkezli çember

O, is the center of the circle

$m(\widehat{AOB}) = 120°$, $|AO| = |OB| = 6$ br

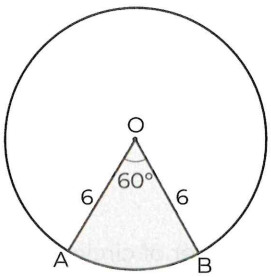
⇒ **Taralı alan kaç π br^2 dir?**

What is the area of shaded region?

A) 24π B) 3π C) 6π D) 36π E) 12π

PUZA ACADEMY

21.



O merkezli çember

O, is the center of the circle

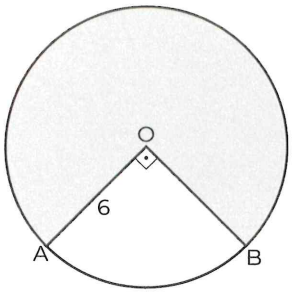
$|AO| = |OB| = 6$ br, $m(\widehat{AOB}) = 60°$

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) 6π B) 12π C) 24π D) 36π E) 48π

22.



O merkezli çember

O, is the center of the circle

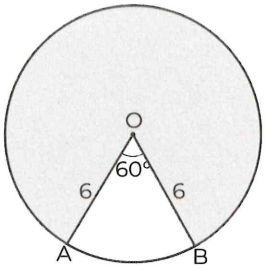
$|OA| = 6$ br, $m(\widehat{AOB}) = 90°$

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) 6π B) 9π C) 18π D) 27π E) 36π

23.



O merkezli çember

O, is the center of the circle

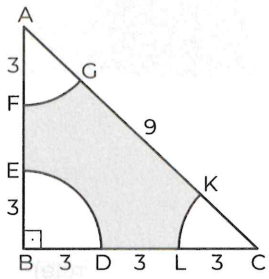
$|AO| = |OB| = 6$ br, $m(\widehat{AOB}) = 60°$

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) 30π B) 40π C) 48π D) 60π E) 32π

24.



$[AB] \perp [BC]$, $|GK| = 9$ br

$|AF| = |BD| = |DL| = |LC| = 3$ br

⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

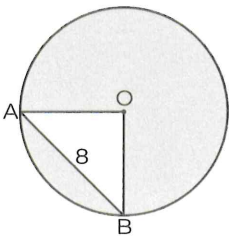
A) $54 - 9\pi$ B) $54 - \frac{9\pi}{2}$ C) $36 - 9\pi$

D) $36 - \frac{9\pi}{2}$ E) $45 - 6\pi$

PUZA ACADEMY

IRANINOVIN

25.



O dairenin merkezi (O, is the center of circle)

[AO] ⊥ [OB] , |AB| = 8 br

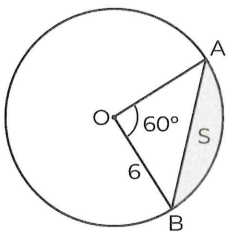
⇒ **Taralı alan kaç br² dir?**

What is the shaded region?

A) $8\pi - 4$ B) $9\pi - 4$ C) $16\pi - 8$

D) $32\pi - 8$ E) $32\pi - 16$

26.



O merkezli çember (O, is the center of circle)

$m(\widehat{AOB}) = 60°$, |OB| = 6 br

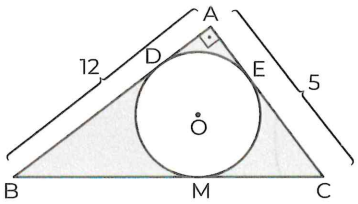
⇒ **Taralı alan kaç br² dir?**

What is the shaded region?

A) 2π B) $2\pi - 9\sqrt{3}$ C) $4\pi + 9\sqrt{3}$

D) $6\pi - 9\sqrt{3}$ E) $6\pi - 9$

27.



O merkezli daire (O, is the center of circle)

[AB] ⊥ [BC] , |AC| = 5 br , |AB| = 12 br

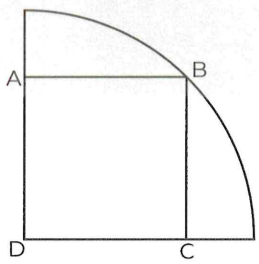
⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded area?

A) $30 - 8\pi$ B) $30 - 4\pi$ C) $30 + 4\pi$

D) $30 + 8\pi$ E) $60 - 4\pi$

28.



ABCD **kare** (square)

Alan (Area)(ABCD) = 36 br²

⇒ **D merkezli çeyrek çemberin alanı kaç π br² dir?**

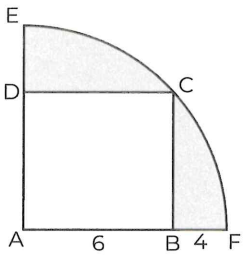
What is the area of quadrant circle with center D?

A) 2π B) 4π C) 8π D) 10π E) 18π

PUZA ACADEMY

@galata1010 IRANINOVIN

29.



ABCD **dikdörtgen** (rectangle)

A merkezli çeyrek çember

A, is the center of quadrant circle

$|AB| = 6$ br, $|BF| = 4$ br

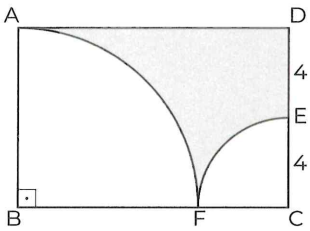
⇒ **Taralı alanlar toplamı = ?**

What is the sum of the shaded area?

A) $400\pi - 193$ B) $100\pi - 81$ C) $25\pi - 81/2$

D) $25\pi - 48$ E) $100\pi - 96$

30.



B ve C merkezli çeyrek çemberler

B and C are the center of the quadrant

$|DE| = |EC| = 4$ br

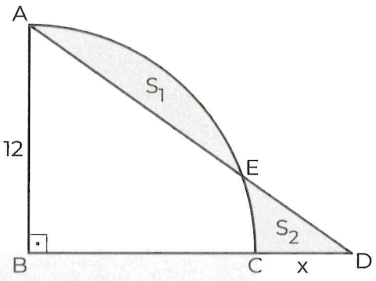
⇒ **Taralı alan kaçtır?**

What is the area of shaded region?

A) $48 - 10\pi$ B) $96 - 10\pi$ C) $48 - 20\pi$

D) $96 - 20\pi$ E) $124 - 20\pi$

31.



B merkezli çeyrek çember

B, is the center of the quarter circle

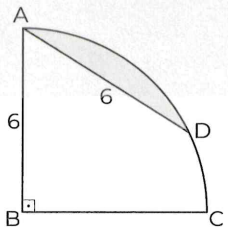
$S_1 = S_2$, $|AB| = 12$ br, $|CD| = x \Rightarrow x = ?$

A) π B) $2\pi - 12$ C) $6\pi - 12$

D) 6π E) $9\pi - 12$

PUZA ACADEMY

32.



B merkezli çeyrek çember

B, is the center of the quarter circle

$|BA| = |AD| = 6$ br

⇒ **Taralı alan kaç br^2 dir?**

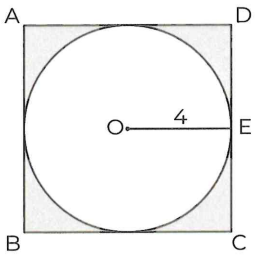
What is the area of shaded region?

A) 6π B) $6\pi - 3\sqrt{3}$ C) $6\pi - 9\sqrt{3}$

D) $12\pi - 6\sqrt{3}$ E) $12\pi - 12\sqrt{3}$

IRANINOVIN

33.



O merkezli çember

O, is the center of the circle

ABCD **kare** (square)

$|OE| = 4$ br

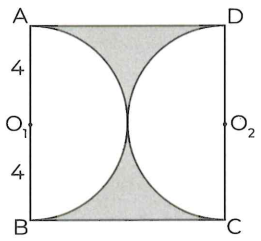
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $16 + 4\pi$ B) $16 + \pi$ C) 4π

D) $16 - \pi$ E) $64 - 16\pi$

34.



ABCD **kare** (square)

$|AO_1| = |O_1B| = 4$ br

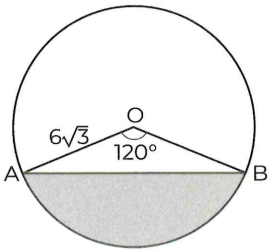
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $32 + 8\pi$ B) $8 - 8\pi$ C) $16 - 4\pi$

D) $64 - 16\pi$ E) $32 - 4\pi$

35.



O merkezli çember (O, is the center of the circle)

$m(\widehat{AOB}) = 120°$, $|OA| = |OB| = 6\sqrt{3}$ br

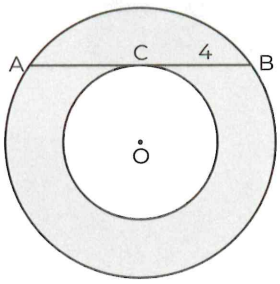
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $36\pi - 27\sqrt{2}$ B) $36\pi - 9\sqrt{2}$ C) $24 - 6\sqrt{2}$

D) $36\pi - 27\sqrt{3}$ E) $16\pi - 12\sqrt{3}$

36.



O merkezli çemberler

O, is the center of the circles

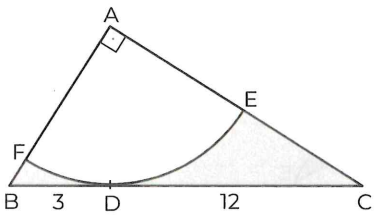
$|CB| = 4$ br

⇒ **Taralı alan** (Shaded area) = ?

A) 2π B) 4π C) 8π D) 12π E) 16π

PUZA ACADEMY

1.



BAC **dik üçgen** (right triangle)

$[AB] \perp [AC]$, $|BD| = 3$ br , $|DC| = 12$ br

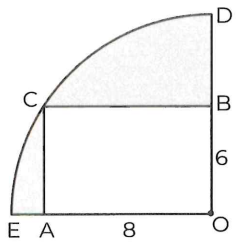
A merkezli çeyrek çember, ABC üçgenine D noktasında teğettir. (A, is the center of the quadrant circle tangent on point D.)

⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) $45 - 9\pi$ B) $60 - 9\pi$ C) $45 - 6\pi$
D) $60 - 6\pi$ E) $60 - 8\pi$

2.



O merkezli çeyrek daire

O, is the center of the quadrant circle

AOBC dikdörtgen (rectangle)

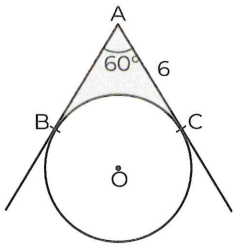
$|AO| = 8$ br , $|OB| = 6$ br

⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) $25\pi - 40$ B) $20\pi - 48$ C) $30\pi - 48$
D) $25\pi - 48$ E) $25\pi - 36$

3.



[AB ve [AC, O merkezli çembere, B ve C noktalarında teğettir.

Line [AB and [AC are tangent on point B and C

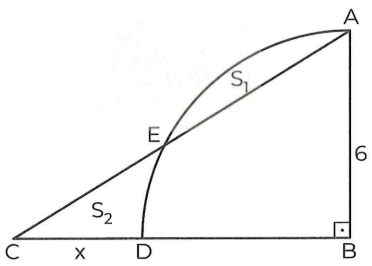
$m(\widehat{BAC}) = 60°$, $|AC| = 6$ br

⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) $18\sqrt{3} - 4\pi$ B) $12\sqrt{3} - 4\pi$ C) $12\sqrt{3} - 6\pi$
D) $12\sqrt{3} - 2\pi$ E) $18\sqrt{3} - 6\pi$

4.



B merkezli çeyrek çember

B is the center of the quarter circle

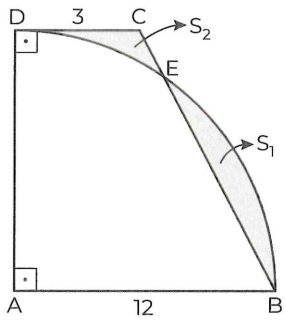
$S_1 = S_2$, $|AB| = 6$ br ⇒ $x = ?$

A) $3\pi - 6$ B) $3\pi + 6$ C) $6\pi - 6$
D) $6\pi + 3$ E) $6\pi + 6$

PUZA ACADEMY

IRANINOVIN

5.



A merkezli çeyrek çember ve ABCD dik yamuk

A, is the center of the circle and ABCD right trapezoid

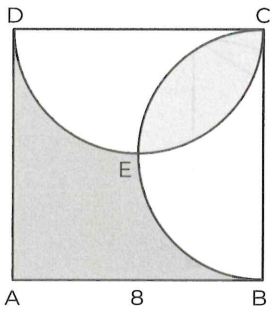
S_1 ve S_2 taralı bölgelerin alanları

S_1 and S_2 shaded areas

$|CD| = 3$ br , $|AB| = 12$ br $\Rightarrow$ $S_1 - S_2 = ?$

A) $32\pi - 45$ B) $36\pi - 60$ C) 24
D) 9π E) $36\pi - 90$

6.



ABCD karesinin içine [BC] ve [CD] çaplı yarım çemberler çizilmiştir.

ABCD square, [BC] and [CD] diameters' of the semi circles.

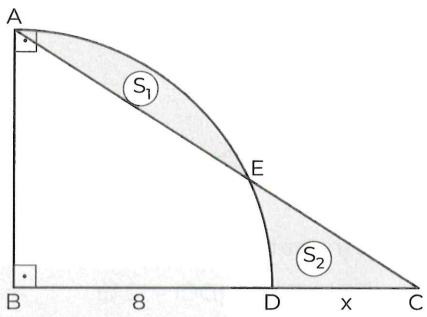
$|AB| = 8$ br

$\Rightarrow$ **Taralı bölgenin alanı kaç br^2 dir?**

What is the area of shaded region?

A) 24 B) 8π C) 32 D) 64 E) 16π

7.



ABC **dik üçgen** (right triangle)

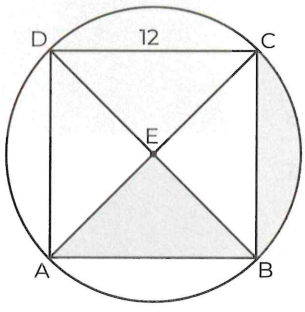
B noktası çeyrek çemberin merkezi

B, is the center of the quadrant circle

$|BD| = 8$ br , $|DC| = x$, $S_1 = S_2$ $\Rightarrow$ $x = ?$

A) 2π B) 4π C) 8π D) $4\pi - 8$ E) $4\pi - 4$

8.



ABCD **kare** (square)

[AC], [BD] **köşegen** (diagonal)

$|DC| = 12$ br

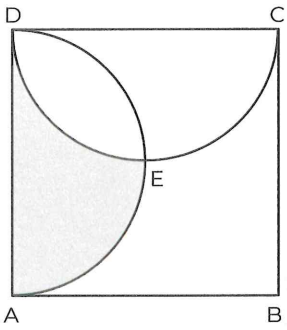
$\Rightarrow$ **Taralı alanların toplamı kaç br^2 dir?**

What is the area of shaded region?

A) 18π B) 12π C) 9π D) 8π E) 6π

PUZA ACADEMY

9.



ABCD **kare** (square)

[AD], [DC] çaplı yarım çemberler E noktasında kesişmektedir.

[AD], [DC] diameters of the semi circle

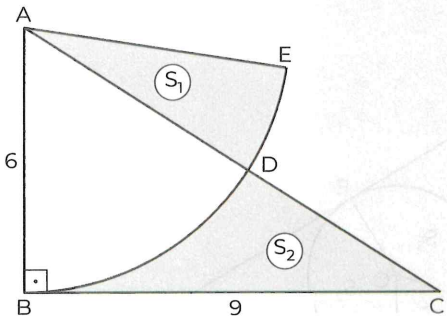
A(ABCD) = 64 br^2

⇒ **Taralı alanların toplamı kaç br^2 dir?**

What is the area of shaded region?

A) 12 B) 16 C) 4π D) 6π – 2 E) 2π + 8

10.



A, BDE çember yayının merkezi

A, center of the $\overset{\frown}{BDE}$

ABC **dik üçgen** (right triangle)

|AB| = 6 br , |BC| = 9 br , $|\overset{\frown}{BE}|$ = 8 br

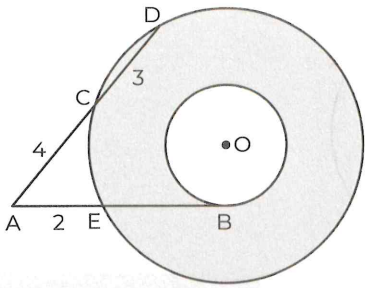
S_1 ve S_2 taralı bölgelerin alanları

S_1 and S_2 shaded areas

⇒ $S_2 - S_1$ = ?

A) 2 B) 3 C) 4 D) 7 E) 9

11.



O merkezli çemberler

O, is the center of circles

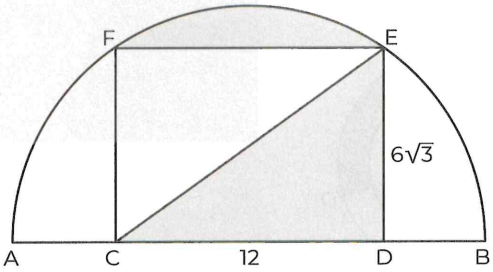
|AE| = 2 br , |AC| = 4 br , |CD| = 3 br

⇒ **Taralı bölgenin alanı kaç br^2 dir?**

What is the area of shaded region?

A) 24π B) 25π C) 36π D) 40π E) 49π

12.



[AB] çaplı yarım daire

[AB] diameter of the semi circle.

CDEF **dikdörtgen** (rectangle)

|AD| = 12 br , |DE| = $6\sqrt{3}$ br

⇒ **Taralı alanların toplamı kaç br^2 dir?**

What is the sum of the shaded area?

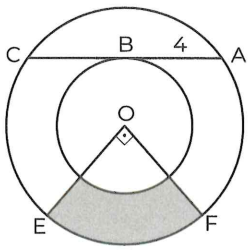
A) 16π B) 24π C) 32

D) 12π + 36 E) 32π – 64

PUZA ACADEMY

IRANINOVIN

13.



O merkezli çember (O, is the center of the circle)

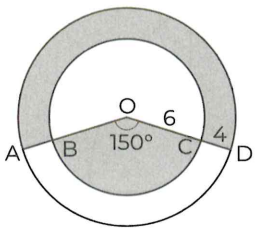
$|BA| = 4$ br, $[EO] \perp [OF]$

⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) 2π B) 4π C) 8π D) 16π E) 24π

14.



O merkezli çemberler

O, is the center of the circles

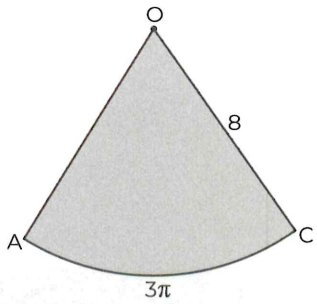
$m(\widehat{AOD}) = 150°$, $|OC| = 6$ cm, $|CD| = 4$ cm

⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) $\frac{152\pi}{3}$ B) 51π C) $\frac{155\pi}{3}$ D) 52π E) $\frac{157\pi}{3}$

15.



O merkezli daire dilimi

O, is the center of the circle slice

$|\widehat{AC}| = 3\pi$, $|OC| = 8$ br

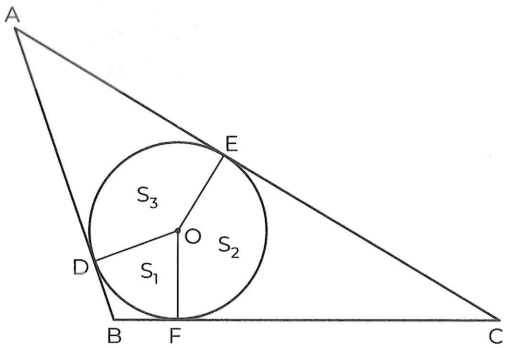
⇒ **Taralı alan kaç br^2 dir?**

What is the value of shaded area?

A) 12π B) 16π C) 24π D) 30π E) 36π

PUZA ACADEMY

16.



ABC üçgen (triangle)

O, iç teğet çemberin merkezi

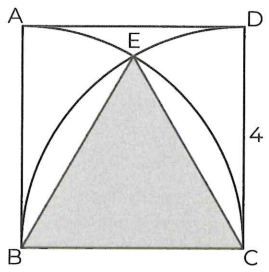
O, center of the interior circle

$S_1 : S_2 : S_3 = 4 : 6 : 8$ ⇒ $m(\widehat{CAB}) = ?$

A) 10 B) 20 C) 30 D) 60 E) 120

IRANINOVIN

17.



ABCD kare (square)

A ve B merkezli çeyrek çemberler

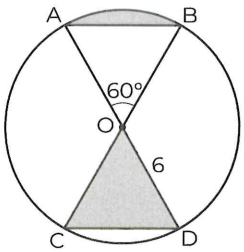
A and B center of the quadrant circle

$|DC| = 4$ br

$\Rightarrow$ **Alan** (Area)$(\widehat{BEC}) = ?$

A) 8π B) 6π C) 4π D) $6\sqrt{3}$ E) $4\sqrt{3}$

18.



O merkezli çember

O, is the center of the circle

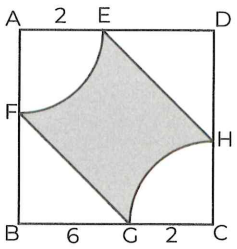
$m(\widehat{AOB}) = 60°$, $|OD| = 6$ br

$\Rightarrow$ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) 2π B) 3π C) 4π D) 5π E) 6π

19.



ABCD kare (square)

A ve C merkezli çeyrek çemberler

A and C are center of quadrant circles

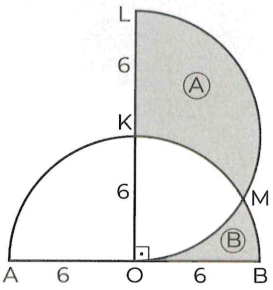
$|AE| = |GC| = 2$ br, $|BG| = 6$ br

$\Rightarrow$ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) 10 B) 12 C) $28 - 4\pi$ D) $28 - 2\pi$ E) $18 - 2\pi$

20.



O, K merkezli yarım çemberler

O and K center of the semi circles

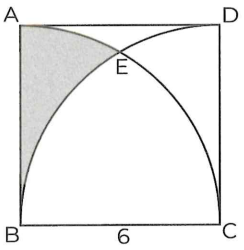
$|LK| = |KO| = 6$ br, $|OB| = |AO| = 6$ br $\Rightarrow A - B = ?$

A) 2π B) 3π C) 4π D) 8π E) 9π

PUZA ACADEMY

IRANINOVIN

21.



B, C merkezli çeyrek çemberler

B and C are center of quarter circles

|BC| = 6 br

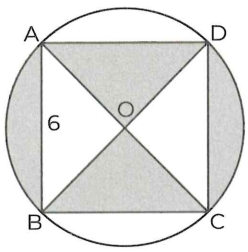
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $9\sqrt{3}-3\pi$ B) $9\sqrt{3}-6\pi$ C) $4\sqrt{3}-2\pi$

D) $4\sqrt{3}-4\pi$ E) $4\sqrt{3}+2\pi$

22.



ABCD **kare** (square)

[AC] ve [BD] **kiriş** (chord)

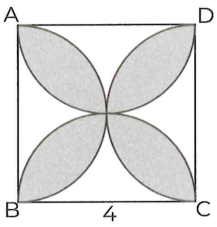
|AB| = 6 br

⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded area?

A) 18π B) 9π C) $\frac{9\pi}{2}$ D) $\frac{9\pi}{4}$ E) $\frac{9\pi}{8}$

23.



ABCD **kare** (square)

|BC| = 4 br

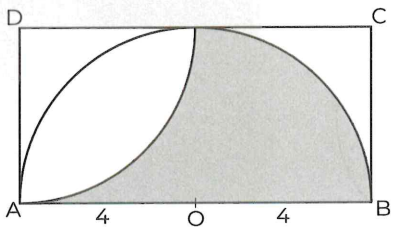
⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded area?

A) 4π B) 2π C) $8\pi-16$

D) $4\pi-16$ E) $2\pi-20$

24.



O ve D çemberlerinin merkezleri

O, and D are center of the circles

|AO| = |OB| = 4 br

ABCD **dikdörtgen** (rectangle)

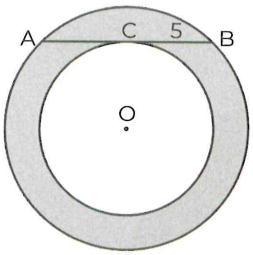
⇒ **Taralı alan kaç π br² dir?**

What is the sum of the shaded area?

A) 2 B) 4 C) 6 D) 8 E) 16

PUZA ACADEMY

1.



O merkezli çember (O, is the center of the circle)

[AB], C noktasında küçük çembere teğet

[AB] is tangent on point C

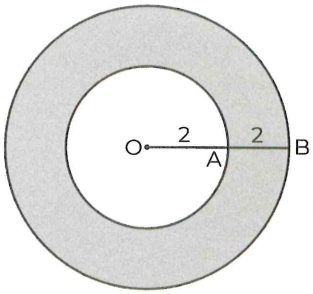
|CB| = 5 br

⇒ **Taralı alan kaç br² dir?**

What is the value of shaded area?

A) 10π B) 20π C) 25π D) 20 E) 25

2.



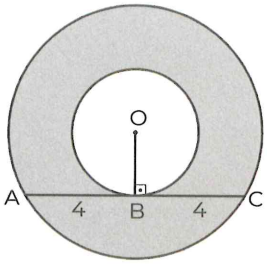
O merkezli çemberler (O, is the center of the circle)

|AB| = |OB| = 2 br

⇒ **Taralı alan** (Shaded area) = ?

A) 4π B) 8π C) 12π D) 16π E) 32π

3.



O merkezli çemberler

O, is the center of the circles

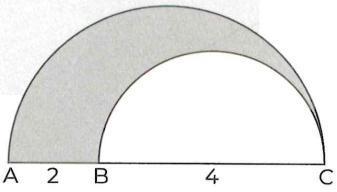
[OB] ⊥ [AC], |AB| = |BC| = 4 br

⇒ **Taralı alan kaçtır?**

What is the area of the shaded region?

A) 4π B) 6π C) 8π D) 9π E) 16π

4.



[AC] ve [BC] çaplı çemberler

[AC] and [BC] are diameters

|AB| = 2 br, |BC| = 4 br

⇒ **Taralı alan kaç br² dir?**

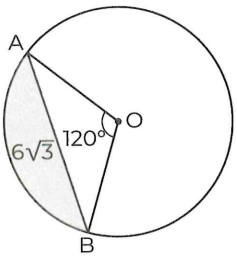
What is the area of shaded region?

A) $\frac{9\pi}{2}$ B) 4π C) $\frac{7\pi}{2}$ D) 3π E) $\frac{5\pi}{2}$

PUZA ACADEMY

IRANINOVIN

5.



O merkezli çember (O is the center of circle)

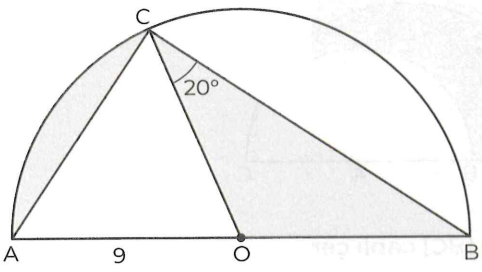
$m(\widehat{AOB}) = 120°$, $|AB| = 6\sqrt{3}$ br

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $12\pi - 9\sqrt{3}$ B) $12\pi + 9\sqrt{3}$ C) $24\pi - 9\sqrt{3}$
D) $24\pi + 9\sqrt{3}$ E) $36\pi + 9\sqrt{3}$

6.



[AB] çaplı, O merkezli yarım daire

[AB] diameter. O, is the center of the circle.

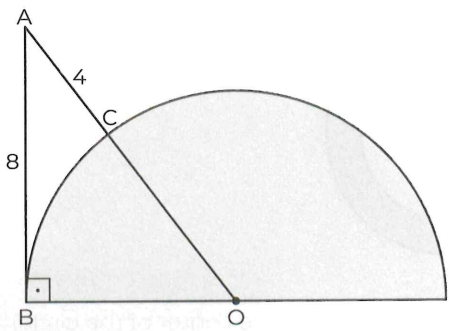
$m(\widehat{BCO}) = 20°$, $|AO| = 9$ br

⇒ **Taralı alanların toplamı kaç br² dir?**

What is the sum of the shaded area?

A) 5π B) 6π C) 8π D) 9π E) 12π

7.



O merkezli yarım çember

O, is the center of the semi circle

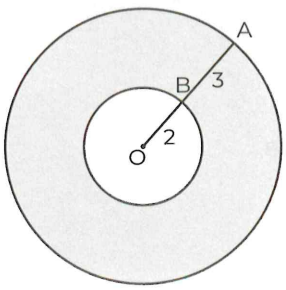
$|AC| = 4$ br , $|AB| = 8$ br

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded area?

A) 12π B) 14π C) 16π D) 18π E) 20π

8.



O merkezli çember

O, is the center of the circle

$|OB| = 2$ br, $|BA| = 3$ br

⇒ **Taralı alan kaç br² dir?**

What is the value of shaded area?

A) 4π B) 5π C) 9π D) 21π E) 28π

PUZA ACADEMY

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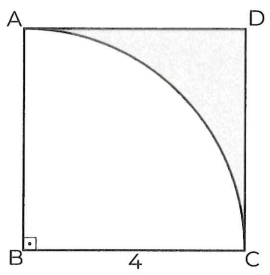
9.



@galata1010

B merkezli çeyrek çember

B, is the center of the quadrant

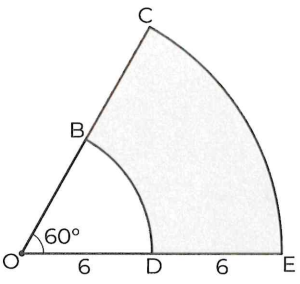
ABCD **kare** (square), $|BC| = 4$ br

⇒ **Taralı alan kaç br^2 dir?**

What is the value of shaded area?

A) $4 - \pi$ B) $4 + \pi$ C) $8 - 2\pi$ D) $8 - \pi$ E) $16 - 4\pi$

10.



O merkezli çember dilimi

O, is the center of the circle slice

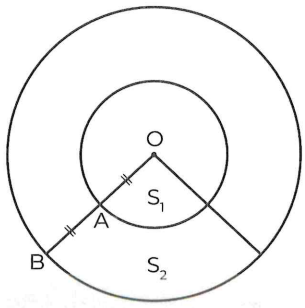
$m(\widehat{COE}) = 60°$, $|OD| = |DE| = 6$ br

⇒ **Taralı alan kaç br^2 dir?**

What is the value of shaded area?

A) 6π B) 9π C) 12π D) 18π E) 24π

11.



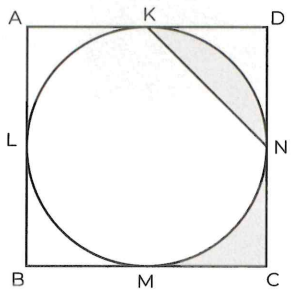
O merkezli çemberler

O, is the center of the circles

$S_1 = 4\pi$ br^2, $|OA| = |AB| \Rightarrow S_2 = ?$

A) 2π B) 4π C) 6π D) 8π E) 12π

12.



ABCD **kare** (square)

$|BC| = 4$ br

⇒ **Taralı alanlar toplamı kaçtır?**

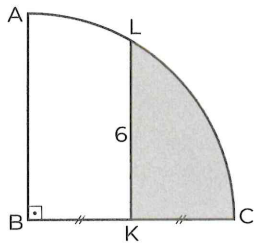
What is the sum of the shaded areas?

A) 6π B) 2π C) 6 D) 4 E) 2

PUZA ACADEMY

IRANINOVIN

13.



B merkezli çeyrek çember

B is the center of the quadrant circle

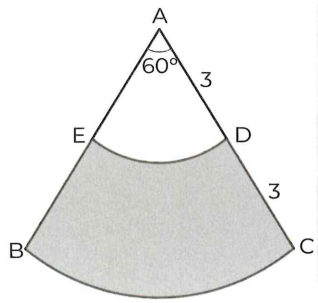
$|BK| = |KC|, |LK| = 6$ br

⇒ **Taralı alan kaçtır?**

What is the area of the shaded region?

A) $8\pi - 2\sqrt{3}$ B) $8\pi - 6\sqrt{3}$ C) $24\pi - 3\sqrt{3}$ D) $18\pi - 3\sqrt{3}$ E) $6\pi - 3\sqrt{3}$

14.



A merkezli daire dilimi

A, is the center of the circle slice

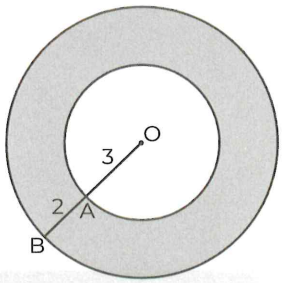
$m(\widehat{BAC}) = 60°, |AD| = |DC| = 3$ br

⇒ **Taralı alan kaçtır?**

What is the area of shaded region?

A) 3π B) $\frac{9\pi}{2}$ C) 6π D) $\frac{15\pi}{2}$ E) 5π

15.



O merkezli çemberler

O, is the center of the circles

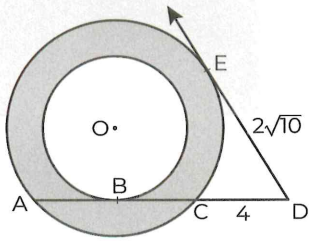
$|OA| = 3$ br, $|AB| = 2$ br

⇒ **Taralı bölgenin alanı kaç π br^2 dir?**

What is the area of shaded region?

A) 6π B) 8π C) 9π D) 16π E) 25π

16.



O merkezli çember

O, is the center of the circle

$|DE| = 2\sqrt{10}$ br, $|CD| = 4$ br

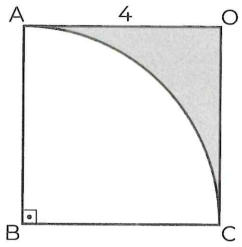
⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) 9π B) 10π C) 12π D) 16π E) 20π

PUZA ACADEMY

17.



B merkezli çeyrek çember

B, is the center of the quarter circle

$m(\widehat{AOB}) = 90°$, $|AO| = 4$ br

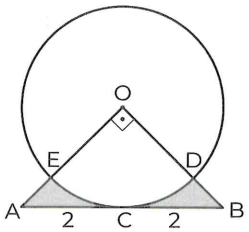
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $4\pi + 4$ B) $2\pi + 8$ C) $16 - 4\pi$

D) $4\pi - 16$ E) $16 - 2\pi$

18.



O merkezli çember

O, is the center of the circle

$[AO] \perp [OB]$, $|AC| = |CB| = 2$ br

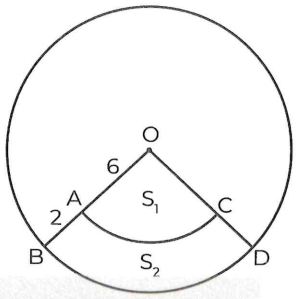
⇒ **Taralı alanlar toplamı kaç br² dir?**

What is the sum of the shaded area?

A) 4 B) $4\pi - 3$ C) $4 - \pi$

D) $4 - 2\pi$ E) $4 - 3\pi$

19.

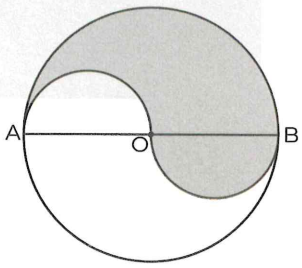


O merkezli çember (O, is the center of circle)

$S_1 = 10\pi$ br², $|OA| = 6$ br, $|AB| = 2$ br ⇒ $S_2 = ?$

A) $\frac{70\pi}{9}$ B) 70π C) 90π D) $\frac{160\pi}{9}$ E) 32

20.



O merkezli çember

O, is the center of the circle

$|AB| = 4$ br

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) π B) 2π C) 3π D) 4π E) 6π

PUZA ACADEMY

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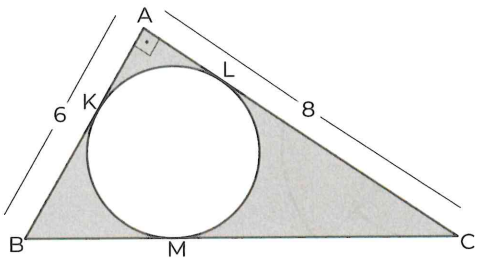
IRANINOVIN

21.



[BA] ⊥ [AC], |AB| = 6 br, |AC| = 8 br

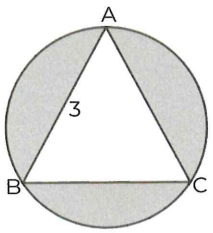
⇒ **Taralı alanlar toplamı kaçtır?**

What is the sum of the shaded area?

A) $12 - 4\pi$ B) $24 - 2\pi$ C) $24 - 4\pi$

D) $48 - 2\pi$ E) $48 - 4\pi$

22.



ABC **eşkenar üçgen** (equilateral triangle)

|AB| = 3 br

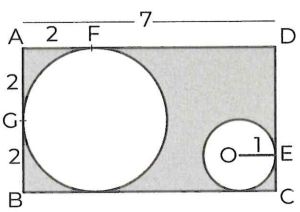
⇒ **Taralı alanlar toplamı nedir?**

What is the sum of the shaded area?

A) $3\pi - 3\sqrt{3}$ B) $\pi - \frac{3\sqrt{3}}{2}$ C) $3\pi - \frac{9\sqrt{3}}{4}$

D) $3\pi - \frac{9\sqrt{3}}{2}$ E) $\pi - \sqrt{3}$

23.



ABCD **dikdörtgen** (rectangle)

|OE| = 1 br, |AD| = 7 br

|AF| = |AG| = |BG| = 2 br

⇒ **Taralı alan kaç br² dir?**

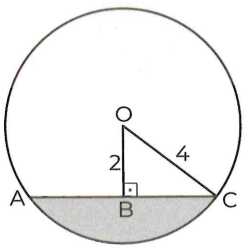
What is the area of shaded region?

A) $28 - 5\pi$ B) $20 - 10\pi$ C) $40 - 5\pi$

D) $20 + 5\pi$ E) $40 - 10\pi$

PUZA ACADEMY

24.



O merkezli çember (O, is the center of the circle)

[OB] ⊥ [AC], |OC| = 4 br, |OB| = 2 br

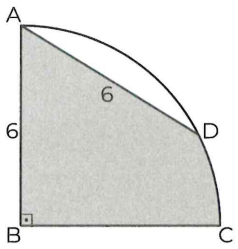
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $16\pi - 4\sqrt{3}$ B) $6\pi - 4\sqrt{3}$ C) $16\pi - 9\sqrt{3}$

D) $\frac{16\pi}{3} - \sqrt{3}$ E) $\frac{16\pi}{3} - 4\sqrt{3}$

25.



B merkezli çeyrek çember

B, is the center of the quadrant circle

$|AD| = |BA| = 6$ br

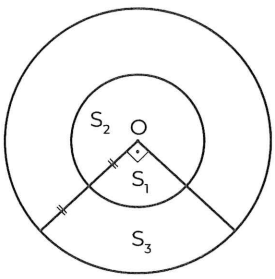
⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) 6π B) $3\pi + 6\sqrt{3}$ C) $3\pi + 9\sqrt{3}$

D) $3\pi - 2\sqrt{3}$ E) $6\pi + 6\sqrt{3}$

26.



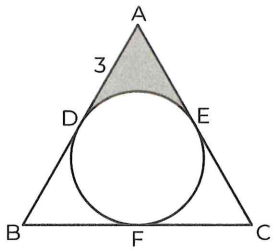
O merkezli çemberler

O, is the center of the circles

$S_1 = 4\pi$ br^2 ⇒ $S_2 + S_3 = ?$

A) 6π B) 9π C) 12π D) 24π E) 36π

27.



ABC **eşkenar üçgen** (equilateral triangle)

$|DA| = 3$ br

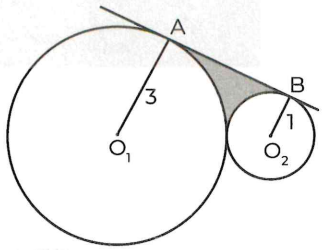
⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

A) $\sqrt{3} - \pi$ B) $2\sqrt{3} - \pi$ C) $2\sqrt{3} + \pi$

D) $4\sqrt{3} - 2\pi$ E) $3\sqrt{3} - \pi$

28.



O_1 ve O_2 merkezli çemberler

$|AO_1| = 3$ br, $|BO_2| = 1$ br

⇒ **Taralı alan kaç br^2 dir?**

What is the area of shaded region?

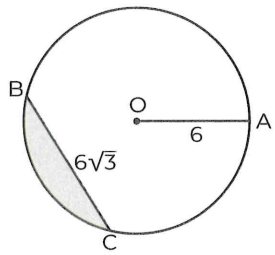
A) $4\sqrt{3}$ B) $4\sqrt{3} - 2$ C) $2\sqrt{3} - \frac{11\pi}{6}$

D) $4\sqrt{3} - \frac{11\pi}{6}$ E) $2\sqrt{3} - 11\pi$

PUZA ACADEMY

IRANINOVIN

29.



O merkezli çember (O, is the center of the circle)

$|OA| = 6$ br, $|BC| = 6\sqrt{3}$ br

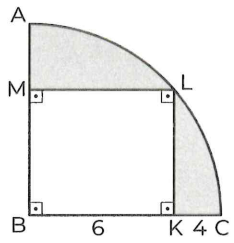
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $9\pi - 6\sqrt{3}$ B) $9\pi - 12\sqrt{3}$ C) $9\pi - 2\sqrt{3}$

D) $12\pi - 9\sqrt{3}$ E) $12\pi - 8\sqrt{3}$

30.



B merkezli çeyrek çember

B is the center of the quadrant circle

BKLM **dikdörtgen** (rectangle)

$|BK| = 6$ br, $|KC| = 4$ br

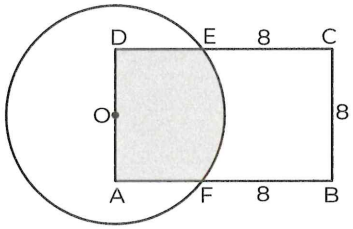
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $25\pi - 24$ B) $50\pi - 48$ C) $25\pi - 48$

D) $50\pi - 96$ E) $100\pi - 96$

31.



$|FB| = |BC| = |CE| = 8$ br

Çevre (circumference) (ABCD) = 40 br

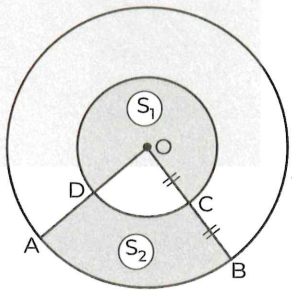
⇒ **Taralı bölgenin alanı kaç br² dir?**

What is the area of shaded region?

A) $16 + 8\pi$ B) $8 + 8\pi$ C) $16 + 16\pi$

D) $24\pi - 32$ E) $16\pi - 8$

32.



O noktası dairelerin ortak merkezi

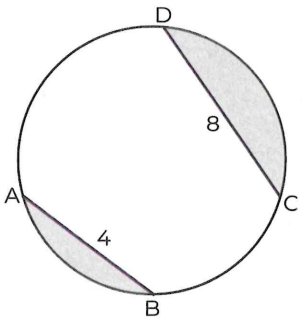
O, is the center of the common circles.

$|OC| = |CB|$, $S_1 = 3 \cdot S_2$ ⇒ $m(\widehat{AOB}) = ?$

A) 30 B) 36 C) 40 D) 45 E) 60

PUZA ACADEMY

33.



@galata1010

$m(\overset{\frown}{AB}) + m(\overset{\frown}{CD}) = 180°$, $|AB| = 4$ br

$|BD| = 8$ br

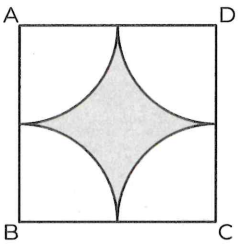
⇒ **Taralı alanların toplamı kaç br² dir?**

What is the sum of the shaded area?

A) $10\pi - 16$ B) $10\pi - 8$ C) $10\pi - 32$

D) $5\pi - 16$ E) $5\pi - 8$

34.



ABCD **kare** (square)

$|AB| = 8$ br

⇒ **Taralı alan kaç br² dir?**

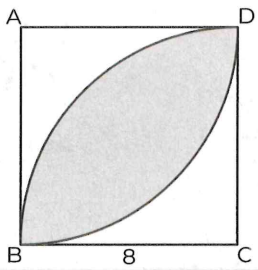
What is the area of shaded region?

A) 32π B) 16π C) 8π

D) $64 - 16\pi$ E) $32 - 8\pi$

PUZA ACADEMY

35.



ABCD **kare** (square)

$|BC| = 8$ br

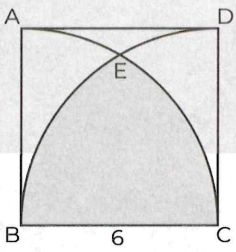
⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) 32 B) 48 C) $32\pi - 64$

D) $32\pi - 48$ E) 32π

36.



B, C merkezli çeyrek çemberler

B and C are center of the circles

$|BC| = 6$ br

⇒ **Taralı alan kaç br² dir?**

What is the area of shaded region?

A) $12\pi - 6\sqrt{3}$ B) $9\pi - 4\sqrt{3}$ C) $12\pi - 9\sqrt{3}$

D) $12\pi + 2\sqrt{3}$ E) $12\pi - 2\sqrt{3}$

IRANINOVIN

AREA OF CIRCLE

DAİREDE ALAN

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
C	C	E	D	C	C	D	A	C	B	A	C

13	14	15	16	17	18	19	20	21	22	23	24
A	E	D	E	C	B	B	E	A	C	A	D

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
E	A	C	C	D	E	A	D	C	B	C	B

13	14	15	16	17	18	19	20	21	22	23	24
E	A	E	E	B	C	A	A	A	D	A	B

25	26	27	28	29	30	31	32	33	34	35	36
E	D	B	E	D	D	C	C	E	D	D	E

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
A	D	B	A	E	C	D	A	B	B	C	B

13	14	15	16	17	18	19	20	21	22	23	24
B	E	A	B	E	E	D	E	A	B	C	E

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
C	C	E	E	A	D	D	D	E	D	E	E

13	14	15	16	17	18	19	20	21	22	23	24
B	B	D	A	C	C	A	B	C	C	A	E

25	26	27	28	29	30	31	32	33	34	35	36
C	D	E	D	D	C	A	B	A	D	C	C

IRANINOVIN

NOTES:

NOTES:

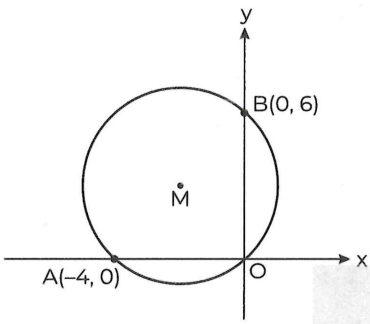
CIRCLE IN ANALYTIC PLANE

ÇEMBER ANALİTİĞİ

CHAPTER | BÖLÜM 21

IRANINOVIN

1.



M merkezli çember A(–4, 0) ve B(0, 6) noktalarından geçmektedir.

Çemberin denklemi aşağıdakilerden hangisidir?

The circle with the center M passes through A(–4, 0) and B(0, 6) What is the equation of circle?

A) $(x + 2)^2 + (y - 3)^2 = 13$

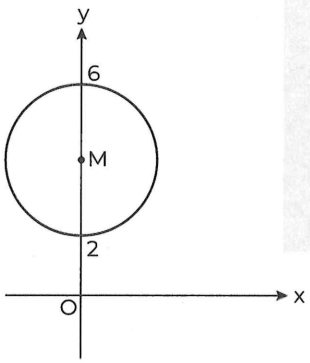
B) $(x - 2)^2 + (y - 3)^2 = 13$

C) $(x - 2)^2 + (y + 3)^2 = 13$

D) $(x + 2)^2 + (y + 3)^2 = 52$

E) $(x + 2)^2 + (y - 3)^2 = 52$

2.



M merkezli çemberin denklemi nedir?

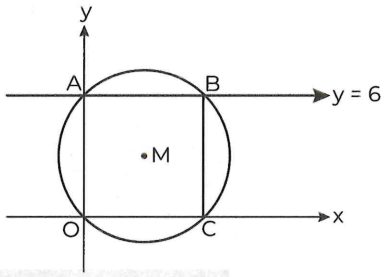
What is the equation of the circle with a center M?

A) $x^2 + (y - 3)^2 = 4$ B) $x^2 + (y - 2)^2 = 2$

C) $(x - 6)^2 + (y - 2)^2 = 4$ D) $x^2 + y^2 = 4$

E) $x^2 + (y - 4)^2 = 4$

3.



OABC **kare** (square)

M merkezli çember (M, is the center of circle)

Çemberin denklemi aşağıdakilerden hangisidir?

What is the equation of circle?

A) $(x - 3)^2 + y^2 = 9$

B) $x^2 + (y - 3)^2 = 9$

C) $(x - 3)^2 + (y - 3)^2 = 27$

D) $(x - 3)^2 + (y - 3)^2 = 18$

E) $(x - 2)^2 + (y - 6)^2 = 18$

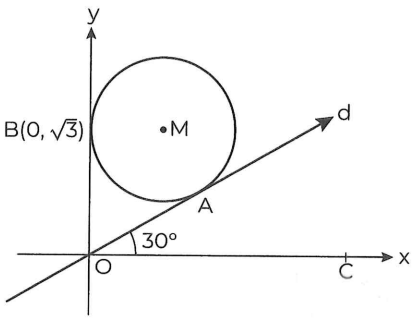
4. $(k - 1)x^2 + y^2 + (m + 3)xy - 2x + 3y + 1 = 0$ **denklemi bir çember belirtmektedir. k + m değeri aşağıdakilerden hangisidir?**

If this equation indicate the circle than what is the value of k + m?

A) –1 B) 0 C) 1 D) 2 E) 3

PUZA ACADEMY

5.



M merkezli çember (M, is the center of circle)

$m(\widehat{AOC}) = 30°$, $B(0, \sqrt{3})$

Çemberin denklemi aşağıdakilerden hangisidir?

What is the equation of the circle?

A) $x^2 + y^2 - x - 3y + 1 = 0$

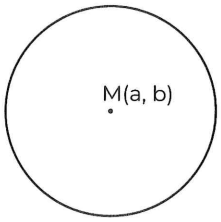
B) $x^2 + y^2 + 2\sqrt{3}x + 6y + 6 = 0$

C) $x^2 + y^2 - 2x - 2\sqrt{3}y + 3 = 0$

D) $x^2 + y^2 - 2x - 2\sqrt{3}y + 1 = 0$

E) $x^2 + y^2 - 2x + 2\sqrt{3}y + 4 = 0$

6.



M merkezli çemberin denklemi

$x^2 + y^2 - 4x - 6y + 2 = 0$ dır.

The equation of the circle with the center of M.

$\Rightarrow$ M(a, b) = ?

A) (2, 3) B) (–2, 3) C) (–2, –3)
D) (3, 2) E) (–3, –2)

7. **$(m - 1)x^2 + 4y^2 - 8x + 24y + n = 0$ denklemi verilen çemberin yarıçapı 3 birim ise m + n aşağıdakilerden hangisidir?**

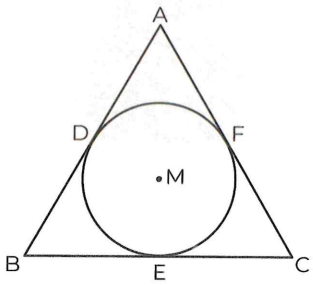
If the circle with equation

$(m - 1)x^2 + 4y^2 - 8x + 24y + n = 0$ has radius of

3 than what is the value of m + n?

A) 6 B) 7 C) 8 D) 9 E) 10

8.



ABC eşkenar üçgen (equilateral triangle)

Denklemi $x^2 + y^2 - 8x + 4y - 5 = 0$ olan M merkezli çember üçgene D, E ve F noktalarında teğettir.

Üçgenin çevresi kaç birimdir?

The circle with center M and equation

$x^2 + y^2 - 8x + 4y - 5 = 0$ is tangent to triangle of points D, E and F.

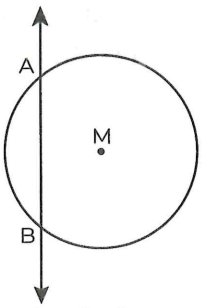
What is the circumference of triangle?

A) 15 B) $10\sqrt{3}$ C) $15\sqrt{3}$ D) 30 E) $30\sqrt{3}$

PUZA ACADEMY

IRANINOVIN

9.



$8x - 6y - 8 = 0$

M merkezli çemberin denklemi

$x^2 + y^2 - 4x + 4y - 24 = 0$

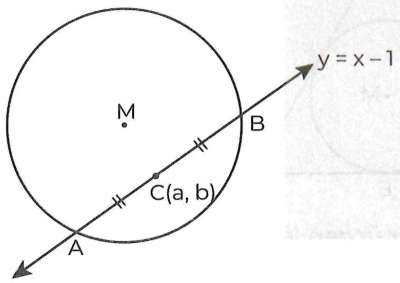
The circle with center M and equation

$x^2 + y^2 - 4x + 4y - 24 = 0$

$\Rightarrow |AB| = ?$

A) $2\sqrt{7}$ B) $3\sqrt{2}$ C) $4\sqrt{2}$ D) $4\sqrt{7}$ E) $6\sqrt{3}$

10.



M merkezli çemberin denklemi

$x^2 + (y - 3)^2 = 40$ dir.

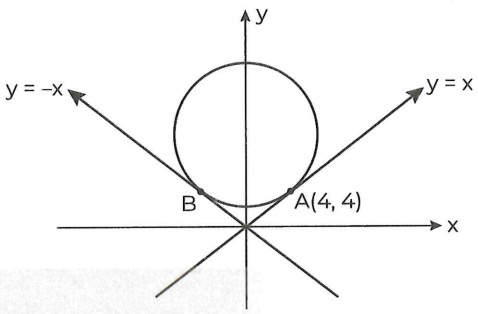
The circle with center M and equation

$x^2 + (y - 3)^2 = 40$

$|AC| = |CB|$, $C(a, b) \Rightarrow a + b = ?$

A) –5 B) –4 C) –1 D) 1 E) 3

11.



y = x ve y = –x doğruları çembere A(4, 4) ve B noktalarında teğettir. Çemberin denklemi aşağıdakilerden hangisidir?

If lines y = x and y = –x are tangent to the circle at point A and B. What is the equation of the circle?

A) $(x - 8)^2 + y^2 = 24$

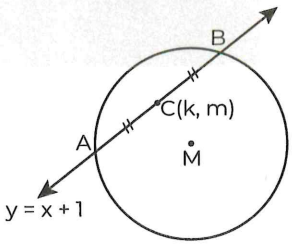
B) $x^2 + (y + 8)^2 = 32$

C) $x^2 + (y + 4)^2 = 16$

D) $x^2 + (y - 8)^2 = 32$

E) $x^2 + (y - 4)^2 = 16$

12.



M merkezli çemberin denklemi

$(x - 5)^2 + y^2 = 64$ dir.

The circle with center M and equation

$(x - 5)^2 + y^2 = 64$

$|AC| = |BC|$, $C(k, m)$

$\Rightarrow k + m = ?$

A) 2 B) 3 C) 5 D) 6 E) 8

PUZA ACADEMY

1. **Analitik düzlemde A(-8, 5), B(-2, -3) |AB| çaplı çemberin çember denklemi aşağıdakilerden hangisidir?**

On the analytical plane [AB] is diameter. What is the equation of circle with diameter [AB]?

A) $x^2 + y^2 = 5$

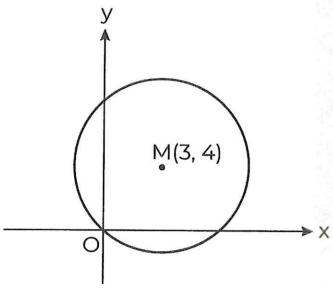
B) $(x + 5)^2 + (y - 1)^2 = 25$

C) $(x + 2)^2 + (y - 1)^2 = 2\sqrt{5}$

D) $(x - 2)^2 + (y + 1)^2 = 4\sqrt{5}$

E) $x^2 + (y - 1)^2 = 10$

2.



M merkezli çember (M is the center of circle)

M(3, 4)

⇒ **Çemberin denklemi nedir?**

What is the equation of circle?

A) $(x - 3)^2 + (y - 4)^2 = 9$

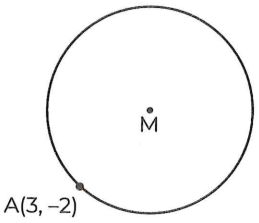
B) $(x - 3)^2 + (y - 4)^2 = 16$

C) $(x - 3)^2 + (y + 4)^2 = 25$

D) $(x + 3) + (y - 4)^2 = 25$

E) $(x - 3)^2 + (y - 4)^2 = 25$

3.



M merkezli A(3, -2) noktasından geçen çemberin denklemi $(x - 9)^2 + (y - 6)^2 = r^2$.

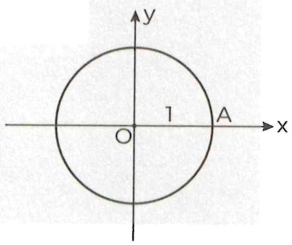
⇒ r = ?

The equation of the circle with center M which pass through point

A(3, –2) is $(x - 9)^2 + (y - 6)^2 = r^2$.

A) 6 B) $2\sqrt{13}$ C) 10 D) $8\sqrt{2}$ E) $4\sqrt{13}$

4.



O(0, 0)

|MA| = 1 br

⇒ **Şekildeki O merkezli çemberin denklemi nedir?**

What is the circle equation with a center O as in the figure?

A) $x^2 + (y - 1)^2 = 1$

B) $(x - 1)^2 + (y + 1)^2 = 1$

C) $x^2 + y^2 = 1$

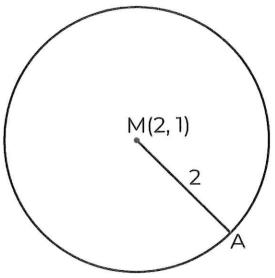
D) $x^2 + y^2 = 0$

E) $(x - 1)^2 + (y - 1)^2 = 0$

PUZA ACADEMY

IRANINOVIN

5.



M(2, 1)

|MA| = 2 br

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

What is the circle equation with a center M as in the figure?

A) $(x + 2)^2 + (y + 1)^2 = 2$

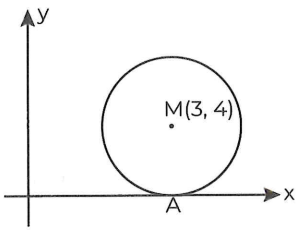
B) $(x + 2)^2 + (y + 1)^2 = 4$

C) $(x - 2)^2 + (y + 1)^2 = 2$

D) $(x - 2)^2 + (y - 1)^2 = 4$

E) $x^2 + y^2 = 4$

6.



A çemberin teğet noktası. Şekildeki M merkezli çemberin denklemi nedir?

A is tangential points of the circle. What is the circle equation with a center M as in the figure?

A) $(x + 3)^2 + (y + 4)^2 = 16$

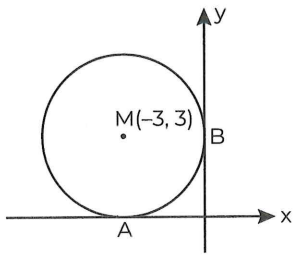
B) $(x + 3)^2 + (y + 4)^2 = 9$

C) $(x - 3)^2 + (y - 4)^2 = 16$

D) $(x - 3)^2 + (y - 4)^2 = 9$

E) $(x - 3)^2 + (y - 4)^2 = 25$

7.



A ve B çemberin teğet noktaları. Şekildeki M merkezli çemberin denklemi nedir?

A and B are tangent to the circle. What is the circle equation with a center M as in the figure?

A) $x^2 + y^2 = 9$

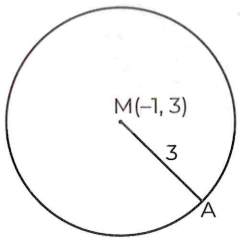
B) $(x - 3)^2 + (y + 3)^2 = 9$

C) $(x + 3)^2 + (y + 3)^2 = 9$

D) $(x + 3)^2 + (y - 3)^2 = 5$

E) $(x - 3)^2 + (y - 3)^2 = 3$

8.



M(–1, 3)

|MA| = 3 br

⇒ **Şekildeki çemberin denklemi nedir?**

Which of the following is the equation of the given circle above?

A) $(x + 1)^2 + (y - 3)^2 = 3$

B) $(x + 1)^2 + (y - 3)^2 = 9$

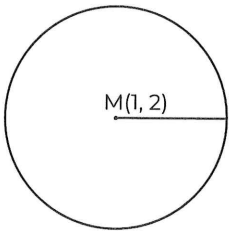
C) $(x - 1)^2 + (y + 3)^2 = 9$

D) $(x - 1)^2 + (y + 3)^2 = 3$

E) $x^2 + y^2 = 3$

PUZA ACADEMY

9.



M(1, 2) , A(2, 4)

⇒ **Şekildeki çemberin denklemi nedir?**

Which of the following is the equation of the given circle above?

A) $x^2 + y^2 = 5$

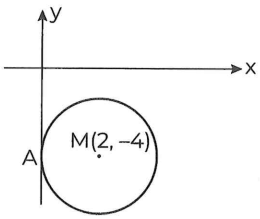
B) $(x-1)^2 + (y-2)^2 = 5$

C) $(x+1)^2 + (y+2)^2 = \sqrt{5}$

D) $(x+1)^2 + (y+2)^2 = 5$

E) $(x+2)^2 + (y+1)^2 = 5$

10.



A çemberin teğet noktası. Şekildeki M merkezli çemberin denklemi nedir?

A is tangential points of the circle. What is the circle equation with a center M as in the figure?

A) $(x+2)^2 + (y+4)^2 = 4$

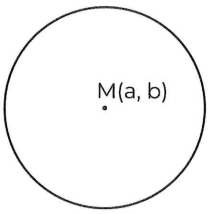
B) $(x+2)^2 + (y-4)^2 = 16$

C) $(x-2)^2 + (y+4)^2 = 16$

D) $(x-2)^2 + (y+4)^2 = 4$

E) $x^2 + (y-2)^2 = 16$

11.



M merkezli çemberin denklemi

$(x-2)^2 + (y+1)^2 = 4$ tür.

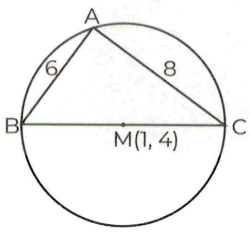
The equation of the circle with the center of M.

⇒ M(a, b) = ?

A) (–2, –1) B) (2, –1) C) (1, –2)

D) (2, 1) E) (–2, 1)

12.



|AB| = 6 br, |AC| = 8 br, M(1, 4)

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

What is the circle equation with a center M as in the figure?

A) $(x-1)^2 + (y-4)^2 = 16$

B) $(x-1)^2 + (y-4)^2 = 5$

C) $(x+1)^2 + (y+4)^2 = 25$

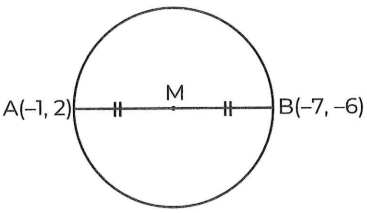
D) $(x+1)^2 + (y+4)^2 = 4$

E) $(x-1)^2 + (y-4)^2 = 25$

PUZA ACADEMY

IRANINOVIN

13.



|AM| = |MB| A(–1, 2) B(–7, –6)

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

What is the circle equation with a center M as in the figure?

A) $(x-4)^2 + (y+2)^2 = 5$

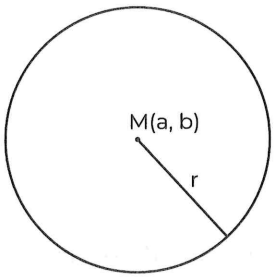
B) $(x-4)^2 + (y+2)^2 = 4$

C) $(x-4)^2 + (y+2)^2 = 25$

D) $x^2 + y^2 = 25$

E) $(x+4)^2 + (y+2)^2 = 25$

14.



M merkezli çemberin denklemi

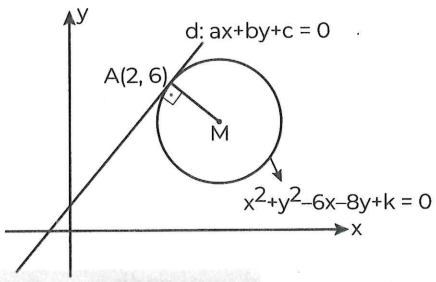
$x^2 + y^2 + 2x + 2y - 2 = 0$ dır.

The equation of the circle with the center of M.

⇒ r = ?

A) 1 B) 2 C) 3 D) 4 E) 5

15.



M merkezli çember (M, is the center of circle)

⇒ d = ?

A) $2y - x - 10 = 0$ B) $y - 2x - 10 = 0$

C) $x - y - 6 = 0$ D) $2y - x - 14 = 0$

E) $2x - y - 8 = 0$

16. $x^2 + (k+7)y^2 + (m-4)xy - 6x + 4y - 29 = 0$

denklemi bir çember belirttiğine göre k + m değeri aşağıdakilerden hangisidir?

If this equation indicate the circle than what is the value of k + m?

A) –7 B) –2 C) 4 D) 7 E) 11

PUZA ACADEMY

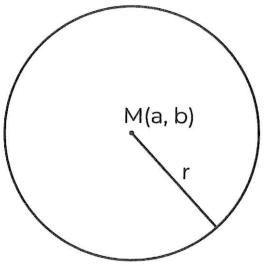
17. **$3x^2 + (m - 2)y^2 - 12x - 18y + n = 0$ denklemi verilen çemberin yarıçapı 2 birim ise $n + 5m$ aşağıdakilerden hangisidir?**

If the circle with equation

$3x^2 + (m - 2)y^2 - 12x - 18y + n = 0$ has radius of 2 than what is the value of $n + 5m$?

A) –26 B) –25 C) 25 D) 26 E) 52

18.



M merkezli çemberin denklemi

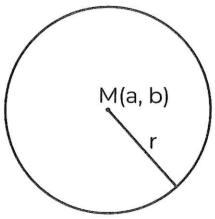
$x^2 + y^2 - 4x + 6y - 3 = 0$ dır.

The equation of the circle with the center of M.

$\Rightarrow r = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

19.



M merkezli çemberin denklemi

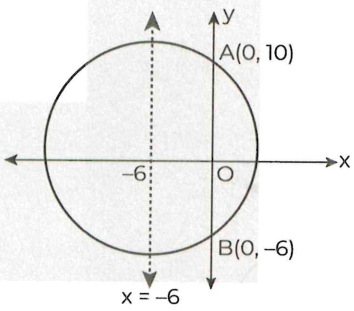
$kx^2 + 2y^2 - 4x - 8y + k + 6 = 0$ dır.

The equation of the circle with the center of M.

$\Rightarrow r = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

20.



A(0, 10) ve B(0, –6) noktalarından geçen çemberin merkezi x = –6 doğrusu üzerinde olduğuna göre çemberin denklemi nedir?

If the circle with center on line x = –6 and passes through A(0, 10) and B(0, –6) then what is the equation of circle?

A) $(x + 6) + (y - 2)^2 = 100$

B) $(x + 6) + (y + 2)^2 = 100$

C) $(x - 6)^2 + (y - 2)^2 = 100$

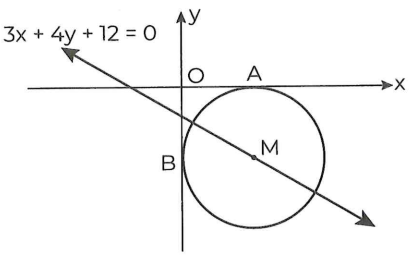
D) $(x + 6)^2 + (y + 2)^2 = 100$

E) $(x + 6)^2 + (y - 2)^2 = 64$

PUZA ACADEMY

IRANINOVIN

21.



Eksenlere A ve B noktalarında teğet olan çemberin merkezi 3x + 4y + 12 = 0 doğrusu üzerindedir. M merkezli çemberin denklemi nedir?

If the center of the circle which is tangent to the points A and B is on the line 3x + 4y + 12 = 0. What is the equation of the circle with center M?

A) $(x-12)^2 + (y-12)^2 = 144$

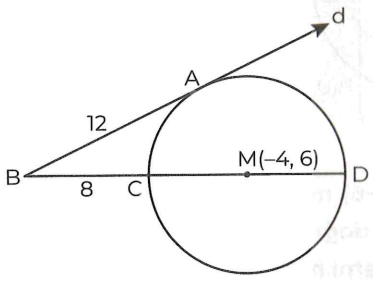
B) $(x-12)^2 + (y+12)^2 = 144$

C) $(x+12)^2 + (y+12)^2 = 144$

D) $(x+12)^2 + (y-12)^2 = 144$

E) $(x-12)^2 + (y+12)^2 = 121$

22.



d doğrusu A noktasında çembere teğettir. M merkezli çemberin denklemi nedir?

Line d is tangential to the circle at the point A what is the circle equation with a center M as in the figure?

A) $(x-4)^2 + (y+6)^2 = 25$

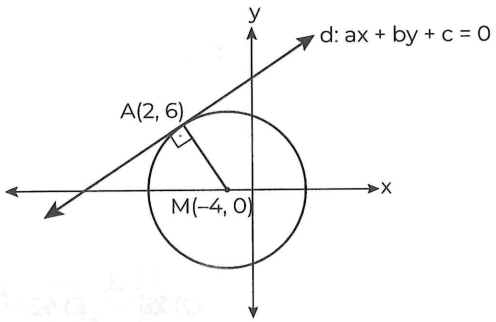
B) $(x+4)^2 + (y+6)^2 = 25$

C) $(x+4)^2 + (y-6)^2 = 25$

D) $(x-4)^2 + (y-6)^2 = 25$

E) $(x+4)^2 + (y-6)^2 = 36$

23.



M merkezli çember (M is the center of circle)

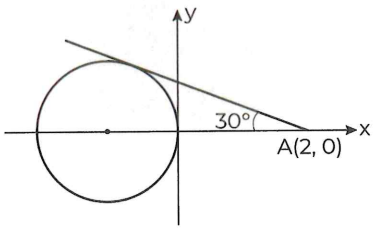
[MA] ⊥ d , M(–4, 0)

⇒ d = ?

A) x + y + 8 = 0 B) x – y + 8 = 0 C) x – y – 8 = 0

D) x + y – 8 = 0 E) –x + y – 8 = 0

24.



Şekildeki çemberin denklemi aşağıdakilerden hangisidir?

Which of the following is the equation of the given circle above?

A) $(x+1)^2 + y^2 = 1$ B) $(x-1)^2 + y^2 = 1$

C) $(x-2)^2 + y^2 = 4$ D) $(x+2)^2 + y^2 = 16$

E) $(x+2)^2 + y^2 = 4$

PUZA ACADEMY

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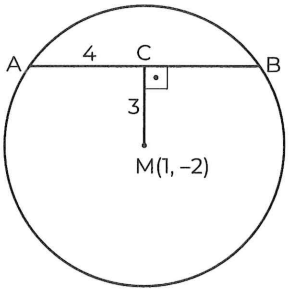
1.



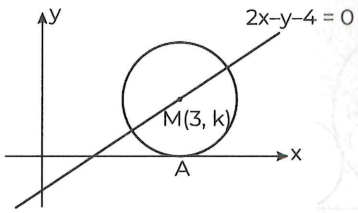
[MC] ⊥ [AB]
M(1, –2)
|AC| = 4 br
|CM| = 3 br

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

What is the circle equation with a center M as in the figure?

A) $(x-1)^2 + (y+2)^2 = 16$
B) $(x-2)^2 + (y-1)^2 = 25$
C) $(x+1)^2 + (y+2)^2 = 5$
D) $(x-1)^2 + (y+2)^2 = 25$
E) $x^2 + y^2 = 25$

2.

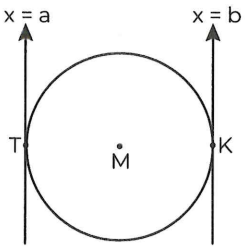


Şekildeki çemberin denklemi aşağıdakilerden hangisidir?

Which of the following is the equation of the given circle above?

A) $(x-3)^2 + (y+1)^2 = 1$
B) $(x-3)^2 + (y+1)^2 = 9$
C) $(x-3)^2 + (y-1)^2 = 3$
D) $(x-3)^2 + (y-2)^2 = 4$
E) $(x-3)^2 + (y-2)^2 = 3$

3.



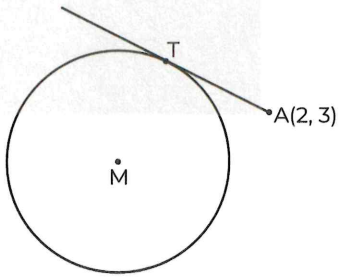
Denklemi $(x-7)^2 + (y-3)^2 = 4$ olan çembere x = a ve x = b doğruları T ve K noktalarında teğettir.

Lines x = a and x = b are tangent to the circle with equation $(x-7)^2 + (y-3)^2 = 4$ at point T and K.

⇒ b – a = ?

A) 1 B) 2 C) 3 D) 4 E) 5

4.



M merkezli çember (M, is the center of circle)

$x^2 + y^2 + 5x - 3y + 2 = 0$

⇒ |AT| = ?

A) 4 B) 6 C) 8 D) 12 E) 16

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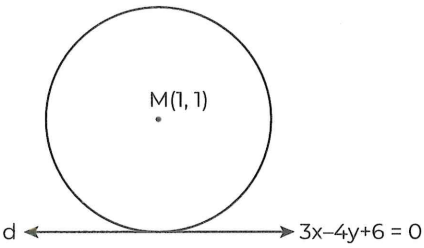
IRANINOVIN

5.



M(1, 1)

d: 3x – 4y + 6 = 0

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

What is the circle equation with a center M as in the figure?

A) $x^2 + y^2 = 1$

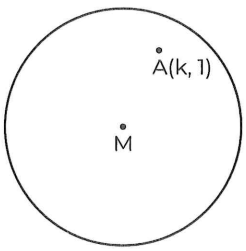
B) $(x-1)^2 + (y-1)^2 = 1$

C) $(x+1)^2 + (y+1)^2 = 1$

D) $x^2 + y^2 = 4$

E) $(x-1)^2 + (y-1)^2 = 4$

6.



A(k, 1) noktası, denklemi $(x-2)^2 + (y+3)^2 = 41$ olan çemberin içinde

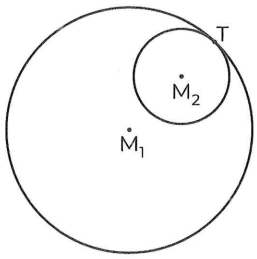
The point A(k, 1) is inside the circle with equation

$(x-2)^2 + (y+3)^2 = 41$

⇒ max(k) = ?

A) 8 B) 7 C) 6 D) 5 E) 4

7.



M_1 ve M_2 merkezli çemberler T noktasında içten teğettir.

The circles are internally tangent at point T.

M_1 merkezli çemberin denklemi:

$(x-3)^2 + (y+4)^2 = 81$

The circle equation with center M_1

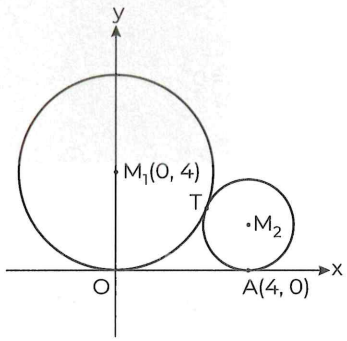
M_2 merkezli çemberin denklemi; $x^2 + y^2 = r^2$

The circle equation with center M_2

⇒ r = ?

A) 3 B) 4 C) 5 D) 6 E) 7

8.



$M_1(0, 4)$ ve M_2 merkezli çemberler T noktasında dıştan teğettir.

The circles are externally tangent at point T.

A(4, 0) ise M_2 merkezli çemberin denklemi nedir?

What is the equation of the circle with a center M_2?

A) $(x-4)^2 + (y-1)^2 = 1$ B) $(x+4)^2 + (y-1)^2 = 1$

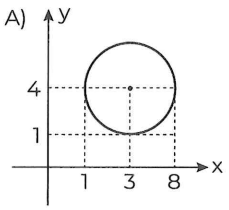
C) $(x-4)^2 + (y-3)^2 = 2$ D) $(x-4)^2 + (y-2)^2 = 1$

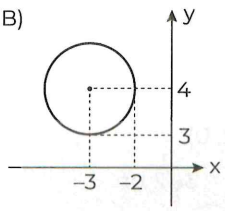
E) $(x+4)^2 + (y-2)^2 = 1$

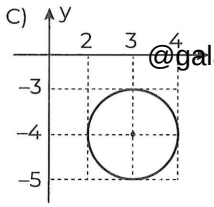
PUZA ACADEMY

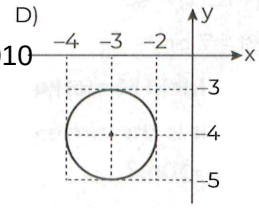
9. $(x-3)^2+(y+4)^2=1$ **çemberinin grafiği aşağıdakilerden hangisidir?**

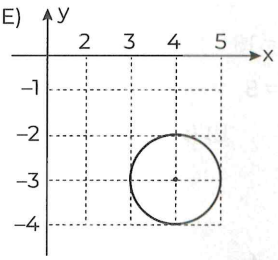
What is the graph of equation?

A) 

B) 

C) 

D) 

E) 

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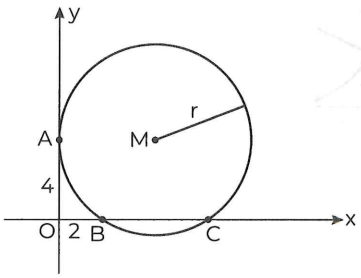
10. 

M merkezli çember

M, is the center of circle

$|AO| = 4$ br, $|OB| = 2$ br

$\Rightarrow r = ?$

A) 2 B) $2\sqrt{2}$ C) 3 D) $3\sqrt{2}$ E) 5

11. $x = -1 - \sqrt{2}\cos\alpha$

$y = 2 + \sqrt{2}\sin\alpha$

sistemine karşılık gelen çemberin denklemi nedir?

What is the equation of the circle that corresponds to the system?

A) $(x+1)^2+(y+2)^2=2$

B) $(x+1)^2-(y-2)^2=2$

C) $(x-1)^2+(y-2)^2=\sqrt{2}$

D) $(x+1)^2+(y-2)^2=2$

E) $(x+1)^2+(y-2)^2=\sqrt{2}$

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PUZA ACADEMY

12. Parametrik denklemleri

Parametric equations;

$x = \sin\theta + \cos\theta - 1$

$y = \sin\theta - \cos\theta + 2$

olarak verilen çemberin standart denklemi aşağıdakilerden hangisidir?

What is the standart equation of the circle?

A) $(x-1)^2+(y+2)^2=2$

B) $(x-1)^2+(y+2)^2=4$

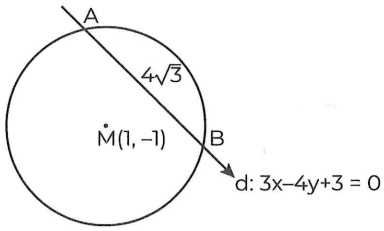
C) $(x+1)^2+(y-2)^2=2$

D) $(x+1)^2+(y+2)^2=2$

E) $(x-1)^2+(y-2)^2=4$

IRANINOVIN

1.



M(1, –1) , |AB| = $4\sqrt{3}$ br

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

What is the circle equation with a center M as in the figure?

A) $(x-1)^2 + (y+1)^2 = 4$

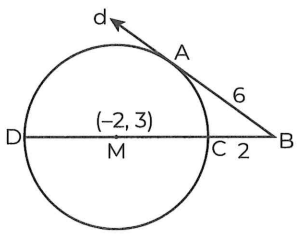
B) $(x+1)^2 + (y-1)^2 = 9$

C) $(x-1)^2 + (y+1)^2 = 16$

D) $(x-1)^2 + (y+1)^2 = 8$

E) $(x-1)^2 + (y+1)^2 = 2$

2.



d doğrusu A noktasında çembere teğettir. M merkezli çemberin denklemi nedir?

Line d is tangential to the circle at the point A. What is the circle equation with a center M as in the figure?

A) $(x+2)^2 + (y-3)^2 = 36$

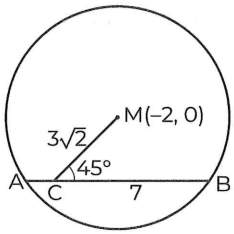
B) $(x+2)^2 + (y-3)^2 = 16$

C) $(x-2)^2 + (y+3)^2 = 32$

D) $(x+2)^2 + (y+3)^2 = 64$

E) $(x+2)^2 + (y-3)^2 = 64$

3.



M(–2, 0)

|MC| = $3\sqrt{2}$ br

$m(\widehat{MCB}) = 45°$

|CB| = 7 br

⇒ **Şekildeki M merkezli çemberin denklemi nedir?**

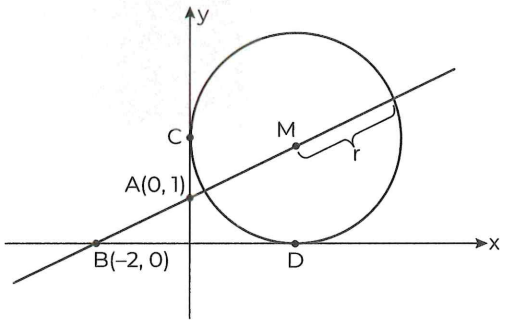
What is the circle equation with a center M as in the figure?

A) $(x+2)^2 + y^2 = 16$ B) $(x+1)^2 + (y-2)^2 = 25$

C) $(x-2)^2 + y^2 = 5$ D) $(x+2)^2 + y^2 = 25$

E) $(x+2)^2 + y^2 = 0$

4.



M merkezli çember (M, is the center of circle)

⇒ r = ?

A) $\frac{1}{2}$ B) 1 C) $\frac{3}{2}$ D) 2 E) 3

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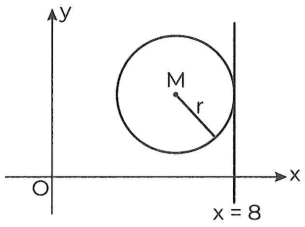
5.



M merkezli çemberin denklemi;

$x^2 + y^2 - 14x - 8y + k = 0$ dır.

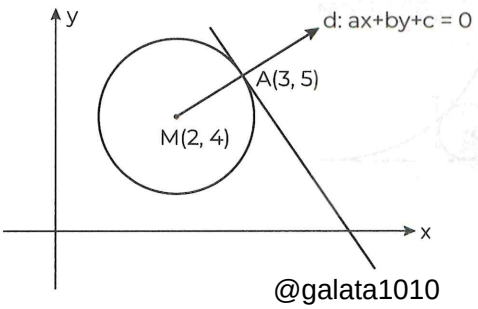
M, is the center of circle with equation

$x^2 + y^2 - 14x - 8y + k = 0$

$\Rightarrow r = ?$

A) 1 B) 2 C) 3 D) 4 E) 5

6.



@galata1010

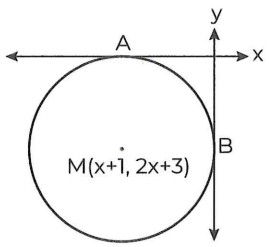
M merkezli çember (M, is the center of circle)

$\Rightarrow d = ?$

A) $y + x - 1 = 0$ B) $y + x - 2 = 0$ C) $y - x - 2 = 0$
D) $y + x - 6 = 0$ E) $y - x - 8 = 0$

PUZA ACADEMY

7.

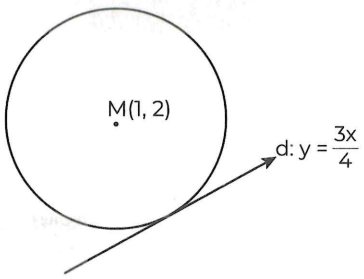


A ve B çemberin teğet noktaları. Şekildeki M merkezli çemberin denklemi nedir?

A and B are tangential to the circle at the point A. What is the circle equation with a center M as in the figure?

A) $(x-1)^2 + (y-1)^2 = 1$
B) $(x-1)^2 + (y+1)^2 = 1$
C) $(x+1)^2 + (y+1)^2 = 1$
D) $(x-1)^2 + (y-2)^2 = 4$
E) $(x+1)^2 + (y+2)^2 = 4$

8.



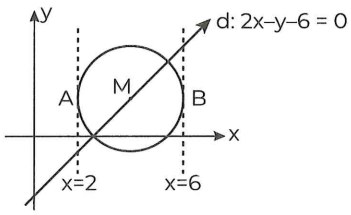
M merkezli çemberin denklemi nedir?

What is the circle equation with a center M?

A) $(x-2)^2 + (y-1)^2 = 1$ B) $(x-1)^2 + (y-2)^2 = 25$
C) $(x-1)^2 + (y-2)^2 = 1$ D) $(x-2)^2 + (y-1)^2 = 25$
E) $(x+1)^2 + (y+2)^2 = 1$

IRANINOVIN

9.



A ve B çembere teğet noktalar,

d: 2x – y – 6 = 0

Şekildeki M merkezli çemberin denklemi nedir?

A and B are tangent points to the circle at the point A. What is the circle equation with a center M as in the figure?

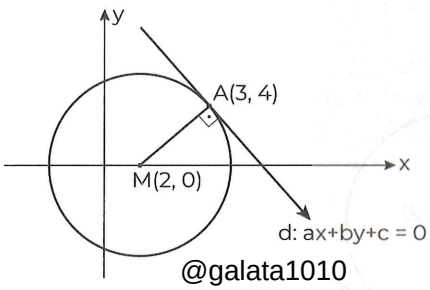
@galata1010

A) $(x + 2)^2 + y^2 = 4$ B) $(x - 4)^2 + (y - 2)^2 = 4$

C) $(x - 3)^2 + (y + 1)^2 = 4$ D) $(x - 2)^2 + (y - 4)^2 = 16$

E) $x^2 + y^2 = 4$

10.



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M merkezli çember (M, is the center of circle)

[MA] ⊥ d, M(2, 0) ⇒ d = ?

A) y + x – 19 = 0

B) 4y + x – 19 = 0

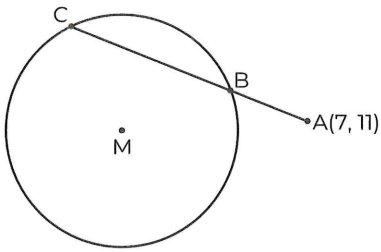
C) x – 4y – 9 = 0

D) 4x + y + 19 = 0

E) 4x + y – 19 = 0

PUZA ACADEMY

11.



M merkezli çember (M, is the center of circle)

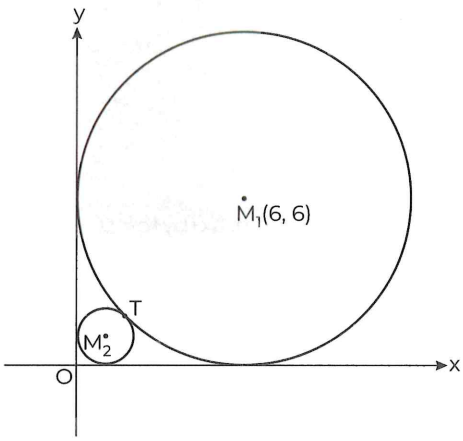
$x^2 + y^2 - 4x + 2y - 4 = 0$, A(7, 11)

A, B, C doğrusal (linear)

⇒ max |AC| = ?

A) 10 B) 13 C) 16 D) 18 E) 20

12.



M_1(6, 6) ve M_2 merkezli çemberler eksenlere ve birbirlerine T noktasında teğettir.

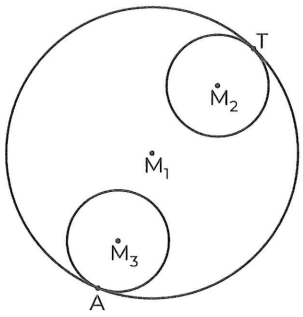
The circles with centers M_1 and M_2 are tangent to axis and tangent each other at point T.

⇒ r_2 = ?

A) $4 \cdot (3 - 2\sqrt{2})$ B) $6 \cdot (3 - 2\sqrt{2})$ C) $4 \cdot (2 - \sqrt{2})$

D) $4 \cdot (1 + \sqrt{2})$ E) $3 \cdot (3 + \sqrt{2})$

13.



M_1 merkezli çemberin denklemi:

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$(x + 5)^2 + (y - 3)^2 = 81$

The circle equation with center M_1

A ve B teğet noktaları

Points A and B are tangent points

$r_3 = 1$ br , $r_2 = 2$ br $\Rightarrow$ max$|M_2M_3|$ = ?

A) 12 B) 13 C) 14 D) 15 E) 16

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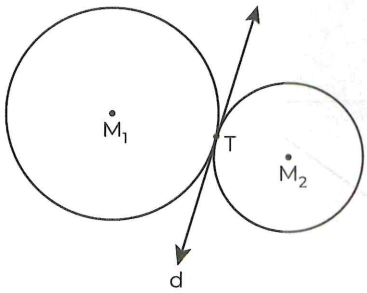
14.



$(x + 4)^2 + (y - 2)^2 = 8$, $(x + 1)^2 + (y + 1)^2 = r^2$

denklemli çemberler T noktasında birbirine teğettir.

The circles are intersect at points T

$T \in d \Rightarrow d$ = ?

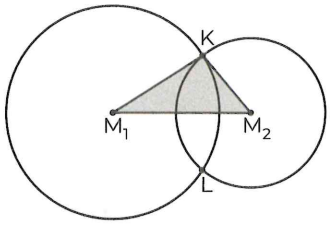
A) $x - y + 2 = 0$ B) $x + y + 4 = 0$

C) $x - y + 3 = 0$ D) $2x + y - 2 = 0$

E) $x - 2y + 5 = 0$

PUZA ACADEMY

15.



M_1 merkezli çemberin denklemi:

$(x + 2)^2 + y^2 = 16$

The circle equation with center M_1

M_2 merkezli çemberin denklemi:

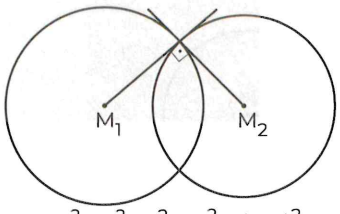
$(x - 2)^2 + (y - 3)^3 = 9$

The circle equation with center M_2

$\Rightarrow$ **Alan** (Shaded area) (KM_1M_2) = ?

A) 3 B) 4 C) 6 D) 8 E) 9

16.



M_1 ve M_2 merkezli çemberlerin denklemleri sırasıyla $(x - 3)^2 + y^2 = r^2$ ve $x^2 + (y - 4)^2 = 9$

M_1 and M_2 are center of circles with equation respectively $(x - 3)^2 + y^2 = r^2$ and $x^2 + (y - 4)^2 = 9$

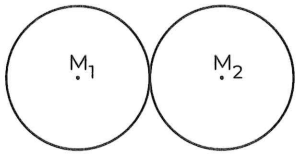
$\Rightarrow r$ = ?

A) 2 B) $2\sqrt{2}$ C) 3 D) 4 E) $4\sqrt{2}$

@galata1010

IRANINOVIN

17.



M_1 ve M_2 merkezli çemberler dıştan teğettir.

M_1 and M_2 centered circles are externally tangent.

M_1 merkezli çemberin denklemi

$x^2+y^2-2x+2y-k = 0$

The equation of M_1 centered circle is

$x^2+y^2-2x+2y-k = 0$

M_2 merkezli çemberin denklemi

$x^2+y^2+4x-6y-t = 0$

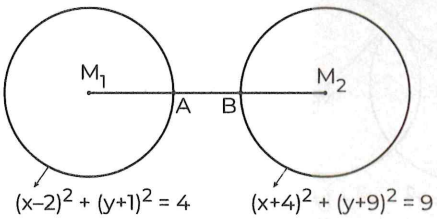
The equation of M_2 centered circle is

$x^2+y^2+4x-6y-t = 0$

$\Rightarrow |M_1M_2| = ?$

A) 2 B) $2\sqrt{2}$ C) 3 D) $3\sqrt{2}$ E) 5

18.



M_1 ve M_2 merkezli çemberlerin denklemi şekildeki gibidir.

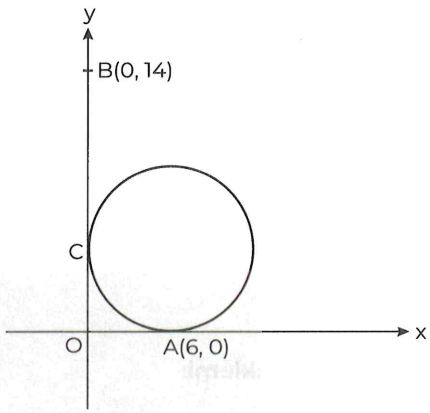
M_1 and M_2 are center of circles

$\Rightarrow |AB| = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

PUZA ACADEMY

19.

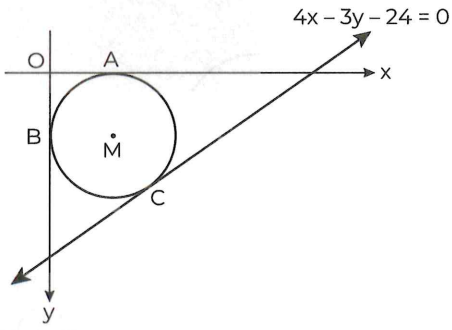


Analitik düzlemde çember eksenlere A ve B noktalarında teğettir. B noktasının çembere en kısa uzaklığı nedir?

On analytical plane circle is tangent axes on point A and C. What is the minimum distance between circle and point B?

A) 4 B) 5 C) 6 D) 7 E) 8

20.



M merkezli çember, A, B ve C noktalarında teğettir.

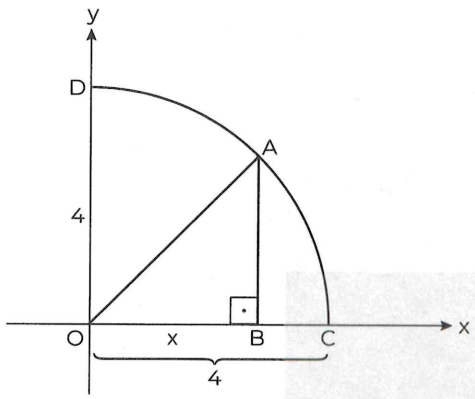
The circle with the center M passes through points A, B and C

$\Rightarrow$ Çemberin yarıçapı kaç br dir?

What is the value of radius?

A) 2 B) 3 C) 4 D) 5 E) 6

21.



Koordinat düzleminde O merkezli çeyrek çember

[AB] ⊥ [OC] , |OC| = |OD| = 4 br , |OB| = x

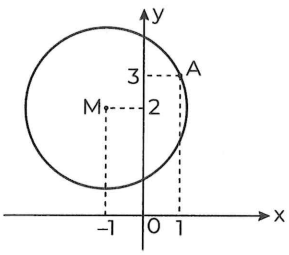
$\widehat{OAB}$ üçgeninin maximum alanlı olabilmesi için x kaç olmalıdır?

O is the center of quadrant circle

|OC| = |OD| = 4 unit. If max area of triangle OAB than what is the value of x?

A) 3 B) $3\sqrt{2}$ C) $\frac{3\sqrt{2}}{2}$ D) $2\sqrt{2}$ E) $3\sqrt{2}$

22.



M merkezli çemberin denklemi nedir?

What is the circle equation with a center M?

A) $(x+1)^2 + (y-2)^2 = \sqrt{5}$

B) $(x-1)^2 + (y-3)^2 = 5$

C) $(x+1)^2 + (y+2)^2 = 5$

D) $(x-1)^2 + (y-3)^2 = \sqrt{5}$

E) $(x+1)^2 + (y-2)^2 = 5$

23. $x = -4 + \sqrt{2}\cos\alpha$

$y = +6 + \sqrt{2}\sin\alpha$

sistemine karşılık gelen çemberin denklemi nedir?

What is the equation of the circle that corresponds to the system?

A) $(x-4)^2 + (y+6)^2 = \sqrt{2}$

B) $(x-4)^2 + (y+6)^2 = 2$

C) $(x+4)^2 + (y-6)^2 = \sqrt{2}$

D) $(x+4)^2 + (y-6)^2 = 2$

E) $(x+4)^2 + (y+6)^2 = 2$

PUZA ACADEMY

24. $x = -3 - \sqrt{2}\cos\alpha$

$y = 5 + \sqrt{2}\sin\alpha$

sistemine karşılık gelen çemberin denklemi nedir?

What is the equation of the circle that corresponds to the system?

A) $(x+3)^2 + (y-5)^2 = 2$

B) $(x+1)^2 - (y-2)^2 = 2$

C) $(x-1)^2 + (y-2)^2 = \sqrt{2}$

D) $(x+8)^2 + (y-2)^2 = 2$

E) $(x+3)^2 + (y-5)^2 = \sqrt{2}$

IRANINOVIN

CIRCLE IN ANALYTIC PLANE

ÇEMBER ANALİTİĞİ

TEST 1A

1	2	3	4	5	6	7	8	9	10	11	12
A	E	D	A	C	A	D	E	D	E	D	C

TEST 1B

1	2	3	4	5	6	7	8	9	10	11	12
B	E	C	C	D	C	B	B	B	D	B	E

13	14	15	16	17	18	19	20	21	22	23	24
E	B	A	B	E	D	A	A	B	C	D	E

TEST 2A

1	2	3	4	5	6	7	8	9	10	11	12
D	D	D	A	B	C	B	A	C	E	D	C

TEST 2B

1	2	3	4	5	6	7	8	9	10	11	12
C	E	D	D	A	C	C	C	B	B	C	B

13	14	15	16	17	18	19	20	21	22	23	24
C	A	C	D	E	C	A	A	D	E	D	A

IRANINOVIN