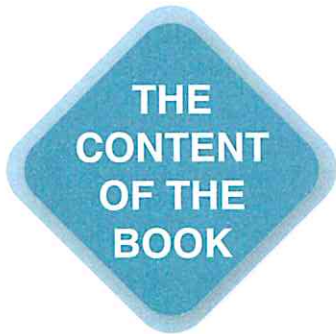




- Her test kendi içerisinde öğrenme sırası dikkate alınarak hazırlanmıştır.
- Konunun daha iyi anlaşılabilmesi için zihin haritası ile desteklenmiştir.
- Öğrencilerimizin soruları çözerken nerede takıldıklarını tespit edebilmeleri için konuya ait her tip soru çeşidine yer verilmiştir.
- Algı ve yorum gücünü ölçen sorular vardır.

BU KİTAP BANA NE KAZANDIRIR?

- Her tip soru çeşidi görmenizi sağlayacaktır.
- Akıl ve mantık yürütmenizi kolaylaştıracaktır.
- Düşünme becerinizi geliştirecektir.
- Her seviyedeki öğrenciye hitap eden bu soru bankası eksiklerinizi görmede size kaynak olacaktır.
- Bazı soruların farklı formatlarının üst üste sorulmasıyla konuları daha iyi öğrenmenizi, kavramanızı ve pekiştirmenizi sağlayacaktır.
- Seviyenizi belirlerken size yol gösterecektir.



- Each test has been prepared taking into account the learning order.
- It is supported with a mind map to make the subject understood better.
- All kinds of questions related to the subject are included for our students to determine where they get stuck on while solving the questions.
- There are questions that measure the degree of perception and interpretation.

WHAT DOES THIS BOOK GIVE TO ME?

- It will provide you to see all kinds of questions.
- It will make your reasoning and logic easier.
- It will improve your thinking skills.
- This question book, which appeals to students of all levels, will be your source for notice your deficiencies.
- It will help you to learn, comprehend and reinforce the subjects better by asking often the different formats of some questions.
- It will guide you in determining your level.

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45125-30092019-01

ISBN: 978-605-69689-0-7



Yayın Koordinatörü / Editor

Furkan AKTAŞ



Yazarlar / Writers

Ömer Faruk CANER

Emet DENİZCİ

Sadık DEMİRBAŞ



Dizgi / Typographic

Caner Yayınları Dizgi Birimi



Basım Yeri / Printing Place

DuMat Ofset Matbaacılık San. ve Tic. A.Ş.

Bahçekapı Mah. 2477 Cad. No: 6 Şaşmaz / ANKARA

Tel: 0 312 278 82 00 • Faks: 0 312 278 82 30



Caner Yayınları



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0 212 542 41 21

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ÖN SÖZ

Değişen eğitim - öğretim sisteminde IQ (Genel Yetenek)

Bilimsel bilginin gelişimi, doğası, günlük hayattaki yansımaları, sosyal ve ekonomik yönden katkıları gibi birçok alanı birleştirerek öğrencilerin donanımlı, bilinçli ve matematik dersini severek öğrenmelerini amaçlamıştır.

Eğitim sistemimizin hedefleri arasında eleştirel, analitik, yenilikçi düşünen, sorgulayan yorum yapan yani üst düzey bilişsel becerilere sahip bireyler yetiştirilmesi bulunmaktadır. Bu nedenle kitabımız hazırlanırken öğrenciyi birçok yönden desteklemek ve öğrenmeyi kolaylaştırmak için gerekli yöntemler dikkate alınmıştır.

Ünite içeriği, konuların zorluğu ve kolaylığı üniversite sınavında soru gelme olasılığı test sayıları belirlemede ölçümüz olmuştur.

Soru içeriği, MEB Talim ve Terbiye Kurulu Başkanlığı'nın belirlediği kazanımlar esas alınarak oluşturulmuştur.

Kitabımızın sizlere yeterli verimi sağlaması dileğiyle...

Ömer Faruk CANER

Kitapla ilgili öneri, istek ve düşüncelerinizi aşağıdaki mail adreslerine iletebilirsiniz.

omercaner@yosdershanesi.com

PREFACE

IQ (Intelligence Quotient) in the changing education system

By combining many fields such as the development of scientific knowledge, nature,

reflections in daily life, social and economic contributions, it aims to enable students to learn equipped, conscious by loving mathematics.

The objectives of our education system are to train individuals who think critically, analytically, innovatively think, question and interpret, that is, high level cognitive skills.

Therefore, while preparing our book, the necessary methods are taken into consideration in order to support the student in many ways and to facilitate learning.

The content of the unit, the difficulty and ease of the subjects, the likelihood of questions

coming from the university exam have been measured in determining the number of tests.

The content of the question is based on the achievements determined by the MEB The Head Council of Education and Morality.

Wishing our book will provide you with sufficient efficiency...

Ömer Faruk CANER

You can send your suggestions, requests and thoughts about the book to the following e-mail addresses.

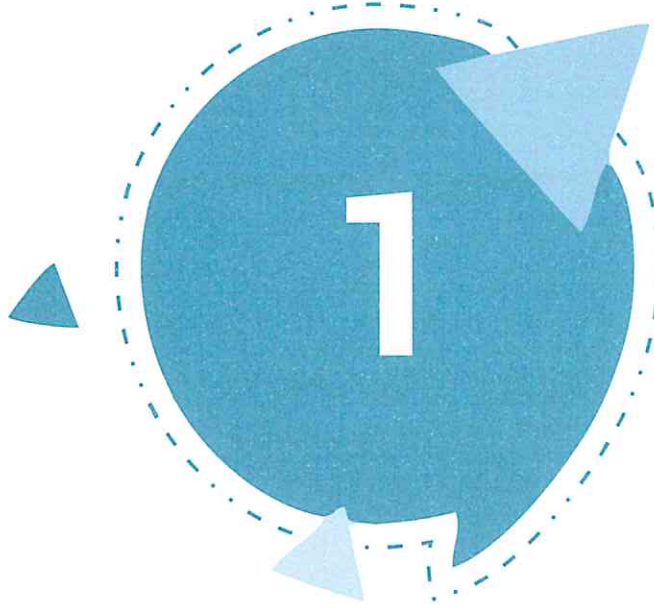
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CANER
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Tests

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SORU
Questions

Aşağıdaki sorularda I. adımdaki her bir harf, rakam veya şekil, eşitliğin diğer tarafındaki farklı birer harf, rakam veya şekil ile gösterilmiştir. Buna göre, soru işaretiyle belirtilen harfleri, rakamları veya şekilleri bulunuz.

In the following questions, each letter, digit or figure in the step I is shown by a different letter, digit or figure in the order side of equivalence. Accordingly, what are the letters, digits or figures in the which are indicated by question mark.

1. I. KAMARA = 472757

II. RAKAM = ?

- A) 52427 B) 57472 C) 75742
D) 24745 E) 75452

2. I. MARATON = ★△□△○▲■

II. TORNA = ?

- A) ○▲△□■ B) ▲△□■○ C) □▲■○△
D) ○△▲■□ E) ○▲□■△

3. I. ★□○●△ = KMCOJ

II. ○△●★□ = ?

- A) CJOKM B) JKOMC C) KOJCM
D) MCOJK E) OJCMK

4. I. 347261 = DMBVZE

II. 72321 = ?

- A) BMDME B) VBDBZ C) BVDVE
D) ZVDVE E) MBDBZ

5. I. SAÇAK = △□★□○

II. KAÇAK = ?

- A) △□★□△ B) ○△★△○ C) △○★○△
D) ○□★□○ E) □○★○□

6. I. 43527 = 25931

II. 25374 = ?

- A) 45371 B) 25493 C) 95123
D) 39512 E) 59231

7. I. ENDİŞE = DİŞLED

II. NEŞED = ?

- A) İŞEŞD B) İDEDŞ C) EDİDŞ
D) LDEDİ E) LDEDŞ

8. I. CACIK = JEJAT

II. SICAKLIK = ?

- A) FAJETNAT B) KAJETNAS
C) JATEKSAK D) FAJETJAT
E) SAKACLIK

9. I. $23416 = 47635$

II. $75292 = 19484$

III. $4173 = ?$

- A) 2473 B) 6317 C) 5137
D) 5182 E) 6543

10. I. $FİYONK = 314257$

II. $AKSAN = 67965$

III. $AKSİYON = ?$

- A) 2416759 B) 2741257 C) 6971425
D) 6741257 E) 6791425

11. I. $KABUS = AHENK$

II. $AGORA = ?$

- A) HADEH B) HNLMH C) HOORH
D) HECJH E) HJDFH

12. I. $\triangle \# * \star \square = KLMNP$

II. $* \odot \blacksquare \nabla = MADEŞ$

III. $\star \square \# \nabla \triangle = ?$

- A) NPMEK B) NPLŞK C) KNPŞA
D) NPLŞM E) KNAŞE

13. $\text{ŞÜPHELENİŞ} = ?$

- A) 6930242576 B) 1362747401
C) 3416383402 D) 2065893702
E) 6934812926

14. $HABABAM = ?$

- A) $x + x + - + :$ B) $: + - + x + -$
C) $- + x + x + :$ D) $: x + x - x +$
E) $- x + x - + :$

15. $VANTİLATÖR = ?$

- A) SERMUBEMUN B) SERMOBEMUN
C) SERMUREMUN D) SERMOBEMEN
E) SERMOREMUN

16. $\blacksquare \text{ŞAMPİYON} = \text{İYONŞAMP}$

$\blacktriangle \text{TÜNAYDIN} = \text{DINAYTÜN}$

$\blacksquare \blacktriangle \text{VERSİYON} = \blacksquare \text{YONSİVER} = \text{İVERYONS}$

$\Rightarrow \blacksquare \blacktriangle \text{ÖĞRETMEN} = ?$

- A) TÖĞRMENE B) MENETÖĞR
C) TÖĞRNEME D) MENEÖTĞR
E) TÖĞREMNE

Aşağıdaki sorularda I. adımdaki her bir harf, rakam veya şekil, eşitliğin diğer tarafındaki farklı birer harf, rakam veya şekil ile gösterilmiştir. Buna göre, soru işaretiyle belirtilen harfleri, rakamları veya şekilleri bulunuz.

In the following questions, each letter, digit or figure in the step I is shown by a different letter, digit or figure in the order side of equivalence. Accordingly, what are the letters, digits or figures in the which are indicated by question mark.

1. I. FEN } II. 549
FAY } 249
YEN } 519 ⇒ FAY = ?
TAN } 215
YAN } 619
- A) 549 B) 249 C) 519 D) 215 E) 619

2. I. SAÇ } II. 728
ÇAM } 328
MAÇ } 128 ⇒ MAÇ = ?
TAÇ } 821
DAM } 421
- A) 728 B) 328 C) 128 D) 821 E) 421

3. I. GÖL } II. 714
GÜL } 834
TÜL } 534 ⇒ GÜL = ?
SEL } 824
TEL } 514
- A) 714 B) 834 C) 534 D) 824 E) 514

4. I. SIR } II. ★○■
SET } ▽□■
TIR } ▲○■ ⇒ TIR = ?
YER } ★♣★
TUT } ▲□★
- A) ★○■ B) ▽□■ C) ▲○■
D) ★♣★ E) ▲□★

5. I. 463 } II. □△○
643 } ○□△
364 } △□○ ⇒ 634 = ?
634 } □○△
436 } △○□
- A) □△○ B) ○□△ C) △□○
D) □○△ E) △○□

6. I. ≠*# } II. 432
*#≠ } 324
#≠* } 423 ⇒ *#≠ = ?
#*≠ } 342
*≠# } 234
- A) 432 B) 324 C) 423 D) 342 E) 234

7. I. BAL } II. □⊙△
MiR } □△○
BiR } ▲△:: ⇒ BAL = ?
TiK } ::⊙■
MAT } ▲⊙△
- A) □⊙△ B) □△○ C) ▲△::
D) ::⊙■ E) ▲⊙△

8. I. 468 } II. - - ↑
448 } - ↑↑
668 } - ↑ - ⇒ 468 = ?
866 } - - -
486 } ↑↑ -
- A) - - ↑ B) - ↑↑ C) - ↑ -
D) - - - E) ↑↑ -

9. I. PEK
KEP
EPK
KPE
EKP
- II. $\begin{Bmatrix} \otimes \star \square \\ \star \square \otimes \\ \star \otimes \square \\ \otimes \square \star \\ \square \otimes \star \end{Bmatrix} \Rightarrow \text{KEP} = ?$
- A) $\otimes \star \square$ B) $\star \square \otimes$ C) $\star \otimes \square$
D) $\otimes \square \star$ E) $\square \otimes \star$

13. I. $\begin{Bmatrix} \square \square \square \\ \square \square \square \\ \square \square \square \\ \square \square \square \\ \square \square \square \end{Bmatrix}$
- II. $\begin{Bmatrix} \text{EDD} \\ \text{EMD} \\ \text{CAY} \\ \text{MEC} \\ \text{MAY} \end{Bmatrix} \Rightarrow \square \square \square = ?$
- A) EDD B) EMD C) CAY
D) MEC E) MAY

10. I. TOK
YOK
TOY
SAY
TAS
- II. $\begin{Bmatrix} 126 \\ 134 \\ 137 \\ 624 \\ 437 \end{Bmatrix} \Rightarrow \text{SAY} = ?$
- A) 126 B) 134 C) 137 D) 624 E) 437

14. I. HAL
FIL
FAL
KAS
HES
- II. $\begin{Bmatrix} 847 \\ 267 \\ 247 \\ 813 \\ 543 \end{Bmatrix} \Rightarrow \text{FAL} = ?$
- A) 847 B) 267 C) 247 D) 813 E) 543

11. I. 242
256
237
212
207
- II. $\begin{Bmatrix} \text{EZA} \\ \text{ETi} \\ \text{EFE} \\ \text{EGE} \\ \text{ELA} \end{Bmatrix} \Rightarrow 256 = ?$
- A) EZA B) ETi C) EFE D) EGE E) ELA

15. I. $\begin{Bmatrix} \square \square \square \\ \square \square \square \\ \square \square \square \\ \square \square \square \\ \square \square \square \end{Bmatrix}$
- II. $\begin{Bmatrix} \text{KAT} \\ \text{SAT} \\ \text{SKT} \\ \text{EAT} \\ \text{KET} \end{Bmatrix} \Rightarrow \square \square \square = ?$
- A) KAT B) SAT C) SKT
D) EAT E) KET

12. I. 357
735
537
753
375
- II. $\begin{Bmatrix} \star \otimes \blacktriangle \\ \otimes \star \blacktriangle \\ \blacktriangle \otimes \star \\ \star \blacktriangle \otimes \\ \otimes \blacktriangle \star \end{Bmatrix} \Rightarrow 753 = ?$
- A) $\star \otimes \blacktriangle$ B) $\otimes \star \blacktriangle$ C) $\blacktriangle \otimes \star$
D) $\star \blacktriangle \otimes$ E) $\otimes \blacktriangle \star$

16. I. $\begin{Bmatrix} \square \triangle \square \\ \square \square \square \\ \square \star \square \\ \square \square \star \\ \triangle \square \square \end{Bmatrix}$
- II. $\begin{Bmatrix} \text{SAY} \\ \text{ASA} \\ \text{BAS} \\ \text{AYA} \\ \text{ABA} \end{Bmatrix} \Rightarrow \square \star \square = ?$
- A) SAY B) ASA C) BAS
D) AYA E) ABA

Aşağıdaki sorularda I. adımdaki her bir harf, rakam veya şekil, şıklardaki farklı birer harf, rakam veya şekil ile gösterilmiştir. Buna göre, soru işaretiyle belirtilen harfleri, rakamları veya şekilleri bulunuz.

In the following questions below, each letter, digit or figure in the step I is shown by a different letter, digit or figure in choices. Accordingly, what are the letters, digits or figures in the which are indicated by question mark.

1. I.
 $\Delta \square \oplus$
 $\oplus \Delta \square$
 $\square \oplus \Delta$
 $\oplus \square \Delta$
 $\Delta \oplus \square$ } $\Rightarrow \Delta \oplus \square = ?$
 A) 427 B) 247 C) 742 D) 724 E) 274

2. I.
 ELA
 ECE
 KAR
 KEL
 GEL } $\Rightarrow \text{KAR} = ?$
 A) 717 B) 470 C) 670 D) 708 E) 685

3. I.
 ONU
 OUN
 UNO
 NUO
 UON } $\Rightarrow \text{UNO} = ?$
 A) $+-x$ B) $x--$ C) $-+x$
 D) $-x+$ E) $x+-$

4. I.
 BiR
 KiN
 SAK
 KAR
 BiN } $\Rightarrow \text{BiN} = ?$
 A) 761 B) 427 C) 361 D) 365 E) 725

5. I.
 $x - +$
 $x / \div$
 $\backslash / \div$
 $\backslash - \div$
 $\Delta - \div$ } $\Rightarrow x - + = ?$
 A) 046 B) 087 C) 342 D) 387 E) 942

6. I.
 $\oplus \square \Delta$
 $\Delta \circ \blacksquare$
 $\alpha + \star$
 $\sim \nabla \sim$
 $\nabla \# \perp$ } $\Rightarrow \nabla \# \perp = ?$
 A) SES B) HUY C) JÖN D) KIT E) EDA

7. I.
 212
 434
 121
 685
 343 } $\Rightarrow 685 = ?$
 A) $\star \square \star$ B) $\Delta \blacksquare \Delta$ C) $\oplus \circ \oplus$ D) $\square \star \square$ E) $\circ \oplus \circ$

8. I.
 682
 584
 214
 614
 514 } $\Rightarrow 514 = ?$
 A) GÜL B) KÜL C) BÜL D) GEL E) BEK

9.

$$\begin{array}{l} \text{I.} \\ \# \checkmark \star \\ \star \# \checkmark \\ \checkmark \star \# \\ \# \star \checkmark \\ \checkmark \# \star \end{array} \Rightarrow \# \star \checkmark = ?$$

- A) 318 B) 183 C) 138 D) 381 E) 831

10.

$$\begin{array}{l} \text{I.} \\ 217 \\ 177 \\ 221 \\ 271 \\ 771 \end{array} \Rightarrow 271 = ?$$

- A) 186 B) 116 C) 886 D) 688 E) 168

11.

$$\begin{array}{l} \text{I.} \\ \text{CAN} \\ \text{KAN} \\ \text{MAT} \\ \text{KAT} \\ \text{CAM} \end{array} \Rightarrow \text{CAN} = ?$$

- A) 638 B) 936 C) 538 D) 932 E) 532

12.

$$\begin{array}{l} \text{I.} \\ \star \blacktriangle \blacksquare \\ \blacksquare \blacktriangle \blacksquare \\ \triangle \blacktriangle \star \\ \square \blacktriangle \circ \\ \triangle \blacktriangle \circ \end{array} \Rightarrow \star \blacktriangle \blacksquare = ?$$

- A) 407 B) 405 C) 808 D) 605 E) 708

13.

$$\begin{array}{l} \text{I.} \\ 573 \\ 242 \\ 473 \\ 731 \\ 813 \end{array} \Rightarrow 473 = ?$$

- A) OLA B) KAL C) SOL D) YOL E) İYİ

14.

$$\begin{array}{l} \text{I.} \\ 252 \\ 131 \\ 868 \\ 676 \\ 404 \end{array} \Rightarrow 868 = ?$$

- A) İRİ B) TAT C) MUM D) KEK E) SİS

15.

$$\begin{array}{l} \text{I.} \\ 487 \\ 417 \\ 537 \\ 517 \\ 937 \end{array} \Rightarrow 537 = ?$$

- A) --★ B) △◎★ C) †--★ D) →!★ E) †◎★

16.

$$\begin{array}{l} \text{I.} \\ \text{AYA} \\ \text{YAY} \\ \text{TAY} \\ \text{TAT} \\ \text{ATA} \end{array} \Rightarrow \text{AYA} = ?$$

- A) !-! B) ††† C) ††† D) ††→ E) →!→

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1. I.
ASi
KSi
DAL
SAL
DiK } ⇒ SAL = ?

A) 237 B) 154 C) 325 D) 137 E) 425

2. I.
YAR
SAY
KAR
PAS
TAK } ⇒ SAY = ?

A) 728 B) 821 C) 324 D) 421 E) 623

3. I.
ARI
SIR
RAY
TIR
YAT } ⇒ YAT = ?

A) 413 B) 931 C) 613 D) 594 E) 395

4. I.
KART
ARTI
TAKI
KARE
ETKi } ⇒ ARTI = ?

A) 2347 B) 5419 C) 1235 D) 1234 E) 4217

5. I.
CÜCE
ETEK
KUKA
ATAK
ACAR } ⇒ ETEK = ?

A) 8984 B) 6268 C) 4248 D) 4743 E) 7176

6. I.
KÖSE
ÖBEK
SART
REVA
VALE } ⇒ KÖSE = ?

A) 1738 B) 9203 C) 6392 D) 4265 E) 8143

7. I.
SERi
KALE
EMiR
ASiL
iLKE } ⇒ ASiL = ?

A) 7286 B) 3876 C) 6431 D) 5613 E) 2538

8. I.
PERA
ARSA
ESME
SAPA
MASA } ⇒ SAPA = ?

A) 8418 B) 4272 C) 7832 D) 1242 E) 2342

9. I.
NiCE
iMGE
GEMi
AZiL
iZiN } $\Rightarrow$ AZiL = ?
- A) 8463 B) 7304 C) 3137 D) 9135 E) 3684

10. I.
TARZ
RAZI
ZARF
ATIF
iTIR } $\Rightarrow$ TARZ = ?
- A) 3841 B) 8517 C) 5834 D) 1513 E) 4837

11. I.
KURT
TURA
ROKA
KAOS
STAR } $\Rightarrow$ TURA = ?
- A) 3895 B) 4526 C) 4893 D) 9245 E) 6359

12. I.
SIFIR
FULAR
SULAK
KEFİR
SEFİL } $\Rightarrow$ SEFİL = ?
- A) 78615 B) 48613 C) 42796 D) 40705 E) 32795

13. I.
TAKIM
KALIT
MAYIS
YALIM
MAKAS } $\Rightarrow$ KALIT = ?
- A) 35418 B) 65217 C) 75613 D) 35658 E) 45213

14. I.
iSPAT
KiTAP
SAPAK
PARİS
KATİP } $\Rightarrow$ iSPAT = ?
- A) 23657 B) 25637 C) 75134 D) 34756 E) 45752

15. I.
ÇAY
SAÇ
TAY
YAS
TAS } $\Rightarrow$ TAY = ?
- A) 148 B) 648 C) 241 D) 842 E) 641

16. I.
AST
KAS
AKS
TAM
MAT } $\Rightarrow$ AKS = ?
- A) 671 B) 613 C) 563 D) 761 E) 365

Aşağıdaki sorularda I. adımdaki her bir harf, rakam veya şekil, şıklardaki farklı birer harf, rakam veya şekil ile gösterilmiştir. Buna göre, soru işaretiyle belirtilen harfleri, rakamları veya şekilleri bulunuz.

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1. I.
MESAI
KASET
TAKIM
SİTEM
ISLAK } $\Rightarrow$ KASET = ?

A) $\div + \times \circ \star$ B) $\square \Delta + \circ P$ C) $+ P \star \Delta \square$
D) $\star \circ \star \div \square$ E) $\star \circ + \Delta \star$

2. I.
HAMUR
AHLAT
ÇAMUR
HALAT
ÇATAL } $\Rightarrow$ ÇATAL = ?

A) $\Delta \circ \downarrow Ex$ B) $\sim \circ \downarrow \circ \otimes$ C) $\sim \circ \downarrow Ex$
D) $\Delta \circ \otimes \circ \downarrow$ E) $\circ \sim \downarrow \circ \otimes$

3. I.
İLMEK
METİL
İLKEK
EKMEK
TEKME } $\Rightarrow$ İLKEK = ?

A) $\star \circ L + \circ$ B) $\star \circ S + L$ C) $+ LS + L$
D) $\neg + LS +$ E) $S + \neg \star \circ$

4. I.
KAYA
KARA
YARA
YASA
SAKA } $\Rightarrow$ KARA = ?

A) $\sigma \circ T \circ$ B) $\alpha \circ T \circ$ C) $\sigma \circ \beta \circ$
D) $\beta \circ \alpha \circ$ E) $\alpha \circ \sigma \circ$

5. I.
TEK
KES
YEK
SEY
KET } $\Rightarrow$ YEK = ?

A) $- + /$ B) $\sim + \times$ C) $\times + \sim$
D) $/ + \sim$ E) $\sim + -$

6. I.
TAHT
KASK
KASA
HARE
TERS } $\Rightarrow$ KASK = ?

A) $\star \Delta + \Delta$ B) $S \times \uparrow +$ C) $\star \Delta + \star$
D) $S \Delta \infty S$ E) $\infty \Delta \uparrow \times$

7. I.
ASMA
ESİR
MiAT
RAST
SEMT } $\Rightarrow$ MiAT = ?

A) $\div \square \times \Delta$ B) $\times L \div \times$ C) $L \rightarrow \div \Delta$
D) $\rightarrow L \square T$ E) $T \times L \Delta$

8. I.
KLON
KANO
NOTA
OLTA
OTAK } $\Rightarrow$ OLTA = ?

A) $> Y < \wedge$ B) $Y < \wedge \times$ C) $\times \wedge > Y$
D) $\times \downarrow Y >$ E) $Y \downarrow < \wedge$

9. I.
EKRAN
KENAR
KARMA
MERAK
ANMAK } $\Rightarrow$ MERAK = ?
- A) $\square \square \square \square \Delta$ B) $\square \square \nabla \square \square$ C) $\square \square \Delta \nabla \square$
D) $\nabla \square \Delta \square \square$ E) $\square \square \Delta \square \square$

10. I.
DiL
ZiL
TEL
ETİ
İDE } $\Rightarrow$ ZiL = ?
- A) $\heartsuit \star \blacksquare$ B) $\blacksquare \heartsuit$ C) $\odot \blacksquare \star$
D) $\star \heartsuit \star$ E) $\heartsuit \blacksquare \star$

11. I.
PERİ
İPEK
KAPİ
KLAS
SALİ } $\Rightarrow$ KLAS = ?
- A) $E \square \square N$ B) $\Delta \times \square T$ C) $NE \square \Delta$
D) $T \square \times +$ E) $\Delta \square E +$

12. I.
KALEM
KALAS
KARAR
KESER
ELMAS } $\Rightarrow$ KALEM = ?
- A) $\varepsilon \partial \square \square$ B) $P \Delta \neg \partial Y$ C) $\varepsilon \partial \Delta \partial Y$
D) $\varepsilon \partial \Delta P T$ E) $\varepsilon P Y P \square$

13. I.
KILIÇ
ÇIKIN
KAÇIK
AÇLIK
ÇALIK } $\Rightarrow$ AÇLIK = ?
- A) $\blacksquare \odot \square \square \Delta$ B) $\Delta \square \square \blacksquare$ C) $\odot \blacksquare \square \square \Delta$
D) $\Delta \odot \blacksquare \square \Delta$ E) $\blacksquare \square \Delta \square \Delta$

14. I.
STOK
KORU
KORT
KURT
KURS } $\Rightarrow$ KORU = ?
- A) a b c d B) a b c e C) e d g a
D) a g c b E) a g c d

15. I.
ESAS
ESKİ
SARI
SAKA
IRAK } $\Rightarrow$ SARI = ?
- A) $\downarrow \square \uparrow +$ B) $\rightarrow \downarrow \square \downarrow$ C) $+\uparrow \square -$
D) $\rightarrow \downarrow \leftarrow \sim$ E) $\downarrow \square - \square$

16. I.
LAF
TAL
SAF
ALT
AST } $\Rightarrow$ SAF = ?
- A) $\odot \star +$ B) $\odot \blacksquare +$ C) $\blacksquare \odot \Delta$
D) $\star \odot \Delta$ E) $+\odot \star$

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In the following questions below, each letter, digit or figure in the step I is shown by a different letter, digit or figure in choices. Accordingly, what are the letters, digits or figures in the which are indicated by question mark.

1. I.
 1673
 4731
 6713 } $\Rightarrow 6147 = ?$
 4163
 6147
 A) 5908 B) 2859 C) 8290
 D) 2980 E) 5820

2. I.
 2048
 6428
 0486 } $\Rightarrow 6428 = ?$
 6024
 2864
 A) 5937 B) 7913 C) 1379
 D) 7519 E) 1593

3. I.
 1923
 6139
 2396 } $\Rightarrow 6139 = ?$
 9213
 3926
 A) 3925 B) 2395 C) 5397
 D) 9537 E) 7253

4. I.
 7806
 9078
 6708 } $\Rightarrow 9078 = ?$
 7089
 8096
 A) 1243 B) 5124 C) 3214
 D) 4235 E) 1425

5. I.
 3019
 7031
 9370 } $\Rightarrow 0391 = ?$
 0391
 1709
 A) 5264 B) 2684 C) 4528
 D) 8652 E) 6248

6. I.
 6543
 7456
 3675 } $\Rightarrow 7456 = ?$
 4567
 3476
 A) 3701 B) 0736 C) 6073
 D) 1367 E) 1063

7. I.
 8615
 6851
 5618 } $\Rightarrow 5618 = ?$
 1568
 6185
 A) 8651 B) 5816 C) 1586
 D) 6581 E) 5168

8. I.
 4975
 2697
 5429 } $\Rightarrow 5429 = ?$
 9247
 5274
 A) 8201 B) 4813 C) 0831
 D) 3014 E) 4380

9. $\left. \begin{array}{l} \text{ADBCE} \\ \text{DCEBA} \\ \text{CEBAD} \\ \text{EBCDA} \\ \text{BAEDC} \end{array} \right\} \Rightarrow \text{DCEBA} = ?$
- A) KMPTY B) PTMKY C) MPTYK
D) TYPKM E) YKTMP

10. $\left. \begin{array}{l} \text{KMNPL} \\ \text{MKNLP} \\ \text{PMLKN} \\ \text{NLPKM} \\ \text{MPLNK} \end{array} \right\} \Rightarrow \text{NLPKM} = ?$
- A) LCEGR B) LRGEC C) EGRCL
D) RLGCE E) CLERG

11. $\left. \begin{array}{l} \text{SAKSI} \\ \text{MAKAS} \\ \text{RAKIM} \\ \text{AKSAK} \\ \text{KARAR} \end{array} \right\} \Rightarrow \text{SAKSI} = ?$
- A) REMEM B) ERTER C) LERET
D) MERJL E) TERTJ

12. $\left. \begin{array}{l} \text{ÇEVRE} \\ \text{VERİM} \\ \text{MERİÇ} \\ \text{REVİR} \\ \text{EVRİM} \end{array} \right\} \Rightarrow \text{EVRİM} = ?$
- A) KTAGK B) TAKGS C) UTAKT
D) STKGU E) ATKGS

13. $\left. \begin{array}{l} \text{AKL} \\ \text{TAK} \\ \text{MLK} \\ \text{SKT} \\ \text{KMS} \end{array} \right\} \Rightarrow \text{AKL} = ?$
- A) ERV B) RZE C) JME
D) MEZ E) VEJ

14. $\left. \begin{array}{l} \text{PRST} \\ \text{KTSP} \\ \text{SPTR} \\ \text{TRKS} \\ \text{RSTK} \end{array} \right\} \Rightarrow \text{TRKS} = ?$
- A) ULMC B) ELCU C) LCUM
D) MUCE E) CEUL

15. $\left. \begin{array}{l} \text{YUVA} \\ \text{MUTK} \\ \text{KVYM} \\ \text{UYTV} \\ \text{KAYM} \end{array} \right\} \Rightarrow \text{UYTV} = ?$
- A) SPNC B) NARP C) ANBR
D) CABS E) SRNC

16. $\left. \begin{array}{l} \text{DFHZ} \\ \text{ZEHD} \\ \text{FHZM} \\ \text{MZDE} \\ \text{EDFZ} \end{array} \right\} \Rightarrow \text{ZEHD} = ?$
- A) RKAB B) BAGK C) AGYK
D) KBYA E) GYKR

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1. $\left. \begin{array}{l} \text{HIZIR} \\ \text{HASIR} \\ \text{SAKIZ} \\ \text{HAZIR} \\ \text{KAHIR} \end{array} \right\} \Rightarrow \text{KAHIR} = ?$

A) 31625 B) 31925 C) 32925
D) 71325 E) 61729

2. $\left. \begin{array}{l} \text{KESAT} \\ \text{KASET} \\ \text{SAKLI} \\ \text{ISLIK} \\ \text{SISKA} \end{array} \right\} \Rightarrow \text{SAKLI} = ?$

A) 74391 B) 79341 C) 34765
D) 53657 E) 35374

3. $\left. \begin{array}{l} \text{MANTI} \\ \text{NAMLI} \\ \text{SITMA} \\ \text{ALTIN} \\ \text{NALIN} \end{array} \right\} \Rightarrow \text{MANTI} = ?$

A) 68431 B) 21358 C) 31248
D) 21582 E) 15482

4. $\left. \begin{array}{l} \text{HAMSi} \\ \text{SiMAY} \\ \text{YAHNi} \\ \text{KAHiN} \\ \text{NiHAN} \end{array} \right\} \Rightarrow \text{YAHNi} = ?$

A) 75013 B) 05263 C) 13051
D) 63257 E) 45031

5. $\left. \begin{array}{l} \text{ARDIÇ} \\ \text{ÇADIR} \\ \text{SIRÇA} \\ \text{ÇARIK} \\ \text{KADAR} \end{array} \right\} \Rightarrow \text{SIRÇA} = ?$

A) 63735 B) 23596 C) 35792
D) 49523 E) 23795

6. $\left. \begin{array}{l} \text{LAMBA} \\ \text{MARUL} \\ \text{URLAM} \\ \text{BAKLA} \\ \text{KABUL} \end{array} \right\} \Rightarrow \text{MARUL} = ?$

A) 47187 B) 67824 C) 87647
D) 23471 E) 17324

7. $\left. \begin{array}{l} \text{MASKE} \\ \text{SEMAN} \\ \text{SANEM} \\ \text{KASEM} \\ \text{MENSA} \end{array} \right\} \Rightarrow \text{SEMAN} = ?$

A) 97104 B) 10473 C) 40317
D) 17304 E) 47190

8. $\left. \begin{array}{l} \text{MEKAN} \\ \text{KEMAN} \\ \text{EMLAK} \\ \text{KALEM} \\ \text{MEYAL} \end{array} \right\} \Rightarrow \text{KEMAN} = ?$

A) 36502 B) 63208 C) 63405
D) 23608 E) 20536

9. $\left. \begin{array}{l} \text{SARIK} \\ \text{KASRI} \\ \text{ILSAR} \\ \text{SAKAL} \\ \text{KIRIK} \end{array} \right\} \Rightarrow \text{SARIK} = ?$

A) 26468 B) 40304 C) 46230
D) 08263 E) 26304

10. $\left. \begin{array}{l} \text{SiTEM} \\ \text{TEKiL} \\ \text{KESiT} \\ \text{iSTEK} \\ \text{iLKEl} \end{array} \right\} \Rightarrow \text{KESiT} = ?$

A) 71532 B) 53219 C) 36716
D) 21736 E) 35217

11. $\left. \begin{array}{l} \text{TEPSi} \\ \text{SiTEM} \\ \text{SiNEK} \\ \text{PETEK} \\ \text{SiMiT} \end{array} \right\} \Rightarrow \text{SiNEK} = ?$

A) 19758 B) 19496 C) 19654
D) 35658 E) 65319

12. $\left. \begin{array}{l} \text{SATEN} \\ \text{SATIR} \\ \text{TERAS} \\ \text{ADRES} \\ \text{DANSI} \end{array} \right\} \Rightarrow \text{DANSI} = ?$

A) 05891 B) 89750 C) 05837
D) 45103 E) 54790

13. $\left. \begin{array}{l} \text{JPRTK} \\ \text{PJSOT} \\ \text{POSTJ} \\ \text{JKROP} \\ \text{KSTJR} \end{array} \right\} \Rightarrow \text{POSTJ} = ?$

A) 42386 B) 73869 C) 46328
D) 64987 E) 67924

14. $\left. \begin{array}{l} \text{MAKAS} \\ \text{TERAS} \\ \text{SARMA} \\ \text{TESLA} \\ \text{SALAM} \end{array} \right\} \Rightarrow \text{TESLA} = ?$

A) 27379 B) 97527 C) 97872
D) 64579 E) 64987

15. $\left. \begin{array}{l} \text{RADAR} \\ \text{DARLA} \\ \text{MARAL} \\ \text{ALMAR} \\ \text{MADAR} \end{array} \right\} \Rightarrow \text{MARAL} = ?$

A) 46240 B) 24046 C) 24840
D) 04840 E) 84064

16. $\left. \begin{array}{l} \text{PARÇA} \\ \text{ÇORBA} \\ \text{BAÇAN} \\ \text{ÇAPAN} \\ \text{PANÇO} \end{array} \right\} \Rightarrow \text{ÇAPAN} = ?$

A) 23135 B) 83514 C) 14623
D) 13835 E) 83613

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In the following questions below, each letter, digit or figure in the step I is shown by a different letter, digit or figure in choises. Accordingly, what are the letters, digits or figures in the which are indicated by question mark.

1. $\left. \begin{array}{l} \text{SIRA} \\ \text{ARIK} \\ \text{ASLI} \\ \text{SARI} \\ \text{KARA} \end{array} \right\} \Rightarrow \text{SIRA} = ?$

A) 4369 B) 3924 C) 5424
D) 4295 E) 3429

2. $\left. \begin{array}{l} \text{DURU} \\ \text{KURU} \\ \text{SORU} \\ \text{KURA} \\ \text{DORA} \end{array} \right\} \Rightarrow \text{DORA} = ?$

A) 1476 B) 5276 C) 1474
D) 3274 E) 5474

3. $\left. \begin{array}{l} \text{PARS} \\ \text{KARS} \\ \text{SARP} \\ \text{PARK} \\ \text{RAKS} \end{array} \right\} \Rightarrow \text{SARP} = ?$

A) 4962 B) 2964 C) 2960
D) 6904 E) 0964

4. $\left. \begin{array}{l} \text{ARMA} \\ \text{MART} \\ \text{TAMA} \\ \text{TART} \\ \text{MAMA} \end{array} \right\} \Rightarrow \text{MART} = ?$

A) 6353 B) 5353 C) 5346
D) 6346 E) 3453

5. $\left. \begin{array}{l} \text{DEVA} \\ \text{ADAM} \\ \text{VEDA} \\ \text{SADE} \\ \text{SEMA} \end{array} \right\} \Rightarrow \text{VEDA} = ?$

A) 1345 B) 7543 C) 1563
D) 4573 E) 3436

6. $\left. \begin{array}{l} \text{KEDİ} \\ \text{KERE} \\ \text{DERİ} \\ \text{DİRİ} \\ \text{ERİK} \end{array} \right\} \Rightarrow \text{ERİK} = ?$

A) 7134 B) 9313 C) 4717
D) 9713 E) 4793

7. $\left. \begin{array}{l} \text{LALE} \\ \text{MALA} \\ \text{ALEM} \\ \text{KALE} \\ \text{KAMA} \end{array} \right\} \Rightarrow \text{KALE} = ?$

A) 0626 B) 8684 C) 6842
D) 0684 E) 2686

8. $\left. \begin{array}{l} \text{MASA} \\ \text{SANI} \\ \text{ASMA} \\ \text{NASA} \\ \text{ANIM} \end{array} \right\} \Rightarrow \text{ASMA} = ?$

A) 5935 B) 3595 C) 1595
D) 5123 E) 9512

9. $\left. \begin{array}{l} \text{KARE} \\ \text{ASAR} \\ \text{KASA} \\ \text{SARE} \\ \text{AKAR} \end{array} \right\} \Rightarrow \text{SARE} = ?$
- A) 6238 B) 6292 C) 2623
D) 9238 E) 2923

10. $\left. \begin{array}{l} \text{ARSA} \\ \text{SARA} \\ \text{AMAN} \\ \text{MANA} \\ \text{NARA} \end{array} \right\} \Rightarrow \text{ARSA} = ?$
- A) 4020 B) 0304 C) 0270
D) 7020 E) 3040

11. $\left. \begin{array}{l} \text{KAST} \\ \text{KESE} \\ \text{APSE} \\ \text{PARK} \\ \text{REST} \end{array} \right\} \Rightarrow \text{REST} = ?$
- A) 6318 B) 9614 C) 2814
D) 9818 E) 3629

12. $\left. \begin{array}{l} \text{SOBA} \\ \text{BARO} \\ \text{KORO} \\ \text{KASA} \\ \text{ARKA} \end{array} \right\} \Rightarrow \text{SOBA} = ?$
- A) 2858 B) 2313 C) 4358
D) 3523 E) 1843

13. $\left. \begin{array}{l} \text{VKST} \\ \text{KSVP} \\ \text{VPTS} \\ \text{SPVK} \\ \text{KPVS} \end{array} \right\} \Rightarrow \text{VKST} = ?$
- A) 5482 B) 8405 C) 8250
D) 2485 E) 2584

14. $\left. \begin{array}{l} \text{ITIR} \\ \text{KATI} \\ \text{TIKA} \\ \text{AKAR} \\ \text{TAKI} \end{array} \right\} \Rightarrow \text{TAKI} = ?$
- A) 4840 B) 5384 C) 8453
D) 5483 E) 3530

15. $\left. \begin{array}{l} \text{AKIL} \\ \text{SALI} \\ \text{SAKI} \\ \text{ASKI} \\ \text{LAKA} \end{array} \right\} \Rightarrow \text{ASKI} = ?$
- A) 4207 B) 4073 C) 2437
D) 3404 E) 2407

16. $\left. \begin{array}{l} \text{KAMU} \\ \text{UMAR} \\ \text{KARA} \\ \text{AKUR} \\ \text{KURA} \end{array} \right\} \Rightarrow \text{AKUR} = ?$
- A) 5841 B) 5138 C) 1483
D) 5838 E) 8513

1. MATEMATİK = ?

- A) 235123464 B) 235123546
C) 235125364 D) 235123446
E) 235145564

2. KARALAMAK = ?

- A) □ ⊗ △ ⊗ □ ⊗ ▲ ⊗ □ B) ▲ □ ⊗ △ ⊗ □ ⊗ □ ⊗
C) □ ⊗ □ ⊗ △ ⊗ □ ⊗ ▲ ⊗ □ D) ⊗ ⊗ △ ⊗ △ ⊗ □ ⊗ ⊗
E) ⊗ △ □ ⊗ △ ⊗ △ ⊗ △ ⊗

3. MALALAMAK = ?

- A) -|-|-|-|↑ B) |-|-|↑--|↑
C) -|↑↑|--|↑↑- D) -|-|-|↑|-|-
E) -|-|-|↑↑|-|↑

4. BEMBEYAZ = ?

- A) CFNCFZBA B) EFNCFZAB
C) DENDEZEC D) CDECDAEF
E) DCNDFCEN

5. $\left. \begin{array}{l} \text{SERA} \\ \text{KASE} \\ \text{SAKA} \\ \text{SARA} \\ \text{PERA} \end{array} \right\} \begin{array}{l} 34 \\ 27 \\ 41 \\ 17 \\ 37 \end{array}$

⇒ KASE = ?

- A) 34 B) 27 C) 41 D) 17 E) 37

6. $\left. \begin{array}{l} \text{LAMA} \\ \text{MASA} \\ \text{SAPA} \\ \text{PALA} \\ \text{LATA} \end{array} \right\} \begin{array}{l} \bigcirc \triangle \\ \triangle \square \\ \nabla \star \\ \star \bigcirc \\ \triangle \nabla \end{array}$

⇒ MASA = ?

- A) $\bigcirc \triangle$ B) $\triangle \square$ C) $\nabla \star$ D) $\star \bigcirc$ E) $\triangle \nabla$

7. $\left. \begin{array}{l} \text{KASA} \\ \text{KANi} \\ \text{YENi} \\ \text{NiYE} \\ \text{SAKA} \end{array} \right\} \begin{array}{l} \text{XZ} \\ \text{ZT} \\ \text{XY} \\ \text{YX} \\ \text{TZ} \end{array} \Rightarrow \text{SANIYE} = ?$

- A) YTZ B) ZTY C) TYZ
D) ZYT E) YZT

8. $\left. \begin{array}{l} \text{KARA} \\ \text{KAMA} \\ \text{MASA} \\ \text{SARA} \\ \text{KASA} \end{array} \right\} \begin{array}{l} 15 \\ 53 \\ 13 \\ 45 \\ 14 \end{array} \Rightarrow \text{MAKARA} = ?$

- A) 341 B) 413 C) 314
D) 435 E) 415

9.

4	3	8	7	1
6	8	3	1	4
7	6	1	3	8
8	4	7	4	6

⇒

?

A)

A	B	C	D	E
F	C	E	B	A
D	F	E	B	C
C	A	D	A	F

B)

A	B	C	D	E
F	C	B	E	A
D	F	C	B	E
C	A	D	A	F

C)

A	B	C	D	E
F	C	B	E	D
D	F	E	B	C
C	A	D	A	F

D)

A	B	C	D	E
F	C	B	E	A
D	F	E	B	C
C	A	D	A	F

E)

A	B	C	D	E
F	C	D	E	A
D	F	E	B	C
C	A	D	A	F

10.

8	9	4	1	5
2	4	6	5	9
4	6	8	2	1

⇒

?

A)

H	K	T	R	N
U	T	C	N	K
T	C	H	U	R

B)

H	K	T	R	N
U	T	C	K	R
T	C	H	U	R

C)

H	K	T	R	N
U	T	C	N	K
T	H	U	R	C

D)

H	K	T	R	N
U	T	C	N	K
C	H	T	U	R

E)

H	K	T	R	N
U	T	C	N	K
T	C	R	U	H

11.

■	△	★	○	⊙
△	⊙	□	○	■
★	□	⊙	■	△
□	○	△	⊙	★

⇒

?

A)

4	3	7	1	9
3	9	5	1	4
7	5	4	9	3
5	1	3	9	7

B)

4	3	7	1	9
3	9	5	1	4
7	5	9	4	3
5	1	3	9	7

C)

4	3	7	1	9
3	9	5	1	4
7	5	9	4	3
1	3	5	9	7

D)

4	3	7	1	9
3	9	4	1	5
7	5	9	4	3
5	1	3	9	7

E)

4	3	7	1	9
3	9	5	1	4
3	5	9	4	7
5	1	7	9	3

12.

⊙	-	+	x	△
-	⊙	v	<	+
<	△	-	+	x
v	⊙	△	x	<

⇒

?

A)

A	T	L	K	R
T	A	S	L	N
N	R	T	K	L
S	A	R	K	N

B)

A	T	L	K	R
T	A	S	N	L
R	N	T	L	L
S	A	R	K	N

C)

A	T	L	K	R
T	A	S	N	L
N	R	T	L	K
S	A	R	K	N

D)

A	T	L	K	R
T	A	S	N	L
N	R	T	L	A
S	A	R	K	N

E)

A	T	L	K	R
T	A	L	S	N
N	R	T	L	K
S	A	R	K	N

Aşağıdaki sorularda I. adımdaki her bir harf, rakam veya şekil, şıklardaki farklı birer harf, rakam veya şekil ile gösterilmiştir. Buna göre, soru işaretiyle belirtilen harfleri, rakamları veya şekilleri bulunuz.

In the following questions below, each letter, digit or figure in the step I is shown by a different letter, digit or figure in choices. Accordingly, what are the letters, digits or figures in the which are indicated by question mark.

1. $\left. \begin{array}{l} \text{MODA} \\ \text{ADAM} \\ \text{MOLA} \\ \text{MALA} \\ \text{ALAM} \end{array} \right\} \Rightarrow \text{ADAM} = ?$

- A) 4373 B) 4873 C) 3734
D) 3134 E) 4813

2. $\left. \begin{array}{l} \text{OCAK} \\ \text{KOVA} \\ \text{ViRA} \\ \text{ROKA} \\ \text{BACA} \end{array} \right\} \Rightarrow \text{ViRA} = ?$

- A) $\Delta \blacksquare \odot \triangle$ B) $\circ \square \triangle \blacksquare$ C) $\nabla \triangle \square \triangle$
D) $\odot \circ \blacksquare \triangle$ E) $\blacksquare \circ \Delta \triangle$

3. $\left. \begin{array}{l} \text{MAVi} \\ \text{ViRA} \\ \text{MART} \\ \text{TARA} \\ \text{TAVA} \end{array} \right\} \Rightarrow \text{MAVi} = ?$

- A) 8154 B) 8136 C) 4151
D) 4131 E) 3651

4. $\left. \begin{array}{l} \text{KART} \\ \text{RAKS} \\ \text{SERT} \\ \text{TERS} \\ \text{REST} \end{array} \right\} \Rightarrow \text{KART} = ?$

- A) 7513 B) 7439 C) 9473
D) 3479 E) 1579

5. $\left. \begin{array}{l} \text{AÇIK} \\ \text{ÇIRA} \\ \text{ARIK} \\ \text{AKIL} \\ \text{ÇAKI} \end{array} \right\} \Rightarrow \text{ARIK} = ?$

- A) 9576 B) 8759 C) 8967
D) 9674 E) 9876

6. $\left. \begin{array}{l} \text{DÖRT} \\ \text{TREN} \\ \text{ÖRTÜ} \\ \text{DERT} \\ \text{TÖRE} \end{array} \right\} \Rightarrow \text{TÖRE} = ?$

- A) $\circ \downarrow \Delta \square$ B) $\Delta \circ \downarrow \uparrow$ C) $\Delta \uparrow \blacksquare$
D) $\rightarrow \circ \downarrow \Delta$ E) $\rightarrow \uparrow \downarrow \Delta$

7. $\left. \begin{array}{l} \text{ELLi} \\ \text{LiLA} \\ \text{ADiL} \\ \text{ODLU} \\ \text{ODUN} \end{array} \right\} \Rightarrow \text{ODUN} = ?$

- A) 7128 B) 7132 C) 4336
D) 3635 E) 5163

8. $\left. \begin{array}{l} \text{REKAM} \\ \text{KERAM} \\ \text{KAREM} \\ \text{REKMA} \\ \text{KERMA} \end{array} \right\} \left\{ \begin{array}{l} 74621 \\ 72631 \\ 64721 \\ 64712 \\ 74612 \end{array} \right. \Rightarrow \text{KAREM} = ?$

- A) 74621 B) 72641 C) 64721
D) 64712 E) 74612

9. BEŞİKTAŞ = ?

- A) CFTJLUBT B) CFJTLBUT
C) CFTLBUJL D) CFULTBLJ
E) CFLBJLUT

10. SEMAVER = ?

- A) 7427673 B) 7424634
C) 7471621 D) 7421643
E) 7471643

11.

K	L	B	R	S
T	B	K	S	L
M	R	B	L	R
R	T	S	M	K

⇒

?

- A)

E	V	N	Y	A
H	N	E	A	V
C	Y	N	V	Y
Y	H	A	C	E

 B)

E	V	N	Y	A
H	N	E	A	V
C	Y	N	V	Y
Y	H	A	C	E
- C)

E	V	N	Y	A
H	N	E	A	V
C	Y	V	N	Y
Y	H	A	C	E

 D)

E	V	N	Y	A
H	N	E	A	V
C	Y	N	V	H
Y	H	A	C	E
- E)

E	V	N	Y	A
H	N	E	A	V
C	Y	N	V	Y
Y	A	H	C	E

12.

7	8	3	5
0	7	8	2
5	2	0	3

⇒

?

- A)

6	1	4	5
3	6	1	4
9	5	3	9

 B)

6	1	4	9
3	6	1	5
5	9	3	4

 C)

6	1	4	9
3	6	1	5
9	5	3	4
- D)

6	1	4	9
3	6	1	5
9	6	3	4

 E)

6	1	4	9
3	5	1	6
9	5	3	4

13.

HATA	{	KN
LATA		ML
HALA		LK
NAHA		KM
TANA		NM

LAHANA = ?

- A) KLN B) NLK C) MLK
D) NKL E) MKL

14.

TEMA	{	⊙△
MAZI		□★
ZİRA		□△
MATE		△□
RATE		★⊙

⇒ TERAzi = ?

- A) △⊙★ B) ★□△ C) △★⊙
D) ⊙△★ E) □△⊙

1. $\left. \begin{array}{l} \triangle \circ + \\ \oplus \circ \triangle \\ \oplus + \square \\ \triangle + \sim \\ \sim \square \oplus \end{array} \right\} \Rightarrow \oplus \circ \triangle = ?$

- A) 435 B) 654 C) 421
D) 123 E) 136

2. $\left. \begin{array}{l} 417 \\ 174 \\ 471 \\ 714 \\ 741 \end{array} \right\} \Rightarrow 471 = ?$

- A) AKT B) KAT C) TKA
D) KTA E) ATK

3. $\left. \begin{array}{l} \text{KİTAP} \\ \text{TAKİP} \\ \text{İPTAL} \\ \text{KİLİT} \\ \text{KATİP} \end{array} \right\} \left\{ \begin{array}{l} 78481 \\ 83154 \\ 15783 \\ 75183 \\ 78153 \end{array} \right. \Rightarrow \text{TAKİP} = ?$

- A) 78481 B) 83154 C) 15783
D) 75183 E) 78153

4. $\left. \begin{array}{l} \text{MUSLUK} \\ \text{KASNAK} \\ \text{MANTAR} \\ \text{TUTSAK} \\ \text{KARTAL} \end{array} \right\} \left\{ \begin{array}{l} 517215 \\ 484715 \\ 687385 \\ 519413 \\ 612419 \end{array} \right. \Rightarrow \text{SALAMURA} = ?$

- A) 71416891 B) 71613891 C) 71316981
D) 71316891 E) 71318691

5. $\left. \begin{array}{l} 731 \\ 397 \\ 917 \\ 719 \\ 319 \end{array} \right\} \Rightarrow 397 = ?$

- A) DCA B) BCD C) BDA
D) ABC E) ACD

6. $\left. \begin{array}{l} \text{KALP} \\ \text{PALA} \\ \text{PARK} \\ \text{PLAK} \\ \text{KAPI} \end{array} \right\} \Rightarrow \text{PARK} = ?$

- A) 5204 B) 4025 C) 5074
D) 4053 E) 5020

7. $\left. \begin{array}{l} \text{SARGI} \\ \text{ZAMAN} \\ \text{SONAT} \\ \text{TOMAR} \\ \text{ARGAN} \end{array} \right\} \left\{ \begin{array}{l} 48659 \\ 45037 \\ 50356 \\ 15256 \\ 98250 \end{array} \right. \Rightarrow \text{MARANGOZ} = ?$

- A) 25056381 B) 25053681 C) 25056831
D) 25053781 E) 25051381

8. $\left. \begin{array}{l} \text{PEÇE} \\ \text{ÇETE} \\ \text{TERE} \\ \text{TEPE} \\ \text{REPE} \end{array} \right\} \left\{ \begin{array}{l} \text{DB} \\ \text{BA} \\ \text{AD} \\ \text{CA} \\ \text{BC} \end{array} \right. \Rightarrow \text{REÇETE} = ?$

- A) ADB B) CDB C) CBD
D) ABC E) DCB

9. $\left. \begin{array}{l} \text{POTA} \\ \text{ŞOTA} \\ \text{ROTA} \\ \text{ÇIRA} \\ \text{KITA} \end{array} \right\} \Rightarrow \text{KITA} = ?$

A) 6392 B) 5392 C) 8092
D) 4392 E) 7062

10. $\left. \begin{array}{l} \text{ALTI} \\ \text{LATA} \\ \text{TAKA} \\ \text{KATI} \\ \text{ATKI} \end{array} \right\} \Rightarrow \text{LATA} = ?$

A) $\otimes + \square +$ B) $+\Delta \otimes \sqcup$ C) $+\otimes \square \sqcup$
D) $\Delta + \otimes +$ E) $\square + \otimes \sqcup$

11. $\left. \begin{array}{l} \text{ÇALI} \\ \text{IRAK} \\ \text{ÇARK} \\ \text{ILIK} \\ \text{KARA} \end{array} \right\} \Rightarrow \text{ÇARK} = ?$

A) 3952 B) 2959 C) 4592
D) 3974 E) 4742

12. $\left. \begin{array}{l} \text{PUS} \\ \text{PAS} \\ \text{KAS} \\ \text{KUM} \\ \text{SAM} \end{array} \right\} \Rightarrow \text{KUM} = ?$

A) $\sqcup \heartsuit \square$ B) $+ \circ \square$ C) $\sqcup \circ \star$
D) $\square \heartsuit \star$ E) $+ \heartsuit \square$

13. $\left. \begin{array}{l} \text{ZARF} \\ \text{RAZI} \\ \text{ARAF} \\ \text{FARK} \\ \text{KAZI} \end{array} \right\} \Rightarrow \text{KAZI} = ?$

A) $\otimes \Delta \square \blacktriangle$ B) $\square \Delta \otimes \star$ C) $\star \Delta \otimes \blacksquare$
D) $\blacksquare \Delta \square \blacktriangle$ E) $\Delta \otimes \Delta \star$

14. $\left. \begin{array}{l} \text{SİLE} \\ \text{EKİN} \\ \text{SART} \\ \text{TİRE} \\ \text{ETAN} \end{array} \right\} \Rightarrow \text{EKİN} = ?$

A) $\alpha \times \ast \Delta$ B) $\Delta \sqcup \times \square$ C) $\Delta \alpha \star \square$
D) $+\star \ast \alpha$ E) $+\times \circ \Delta$

15. $\left. \begin{array}{l} \text{YALI} \\ \text{YARA} \\ \text{SALI} \\ \text{ÇIRA} \\ \text{LARA} \end{array} \right\} \Rightarrow \text{SALI} = ?$

A) 0353 B) 9253 C) 1302
D) 4353 E) 4302

16. $\left. \begin{array}{l} \text{DERE} \\ \text{DEVA} \\ \text{DEVE} \\ \text{KARE} \\ \text{VEDA} \end{array} \right\} \Rightarrow \text{VEDA} = ?$

A) 4632 B) 7286 C) 3642
D) 4686 E) 4636

1. $\left. \begin{array}{l} \text{CIVA} \\ \text{VAKA} \\ \text{CiLA} \\ \text{ACiL} \\ \text{KiVi} \end{array} \right\} \Rightarrow \text{KiVi} = ?$
- A) 8616 B) 6254 C) 2546
D) 1585 E) 2786

2. $\left. \begin{array}{l} \text{TAKIM} \\ \text{KALIT} \\ \text{MAKAM} \\ \text{IRMAK} \\ \text{KATIR} \end{array} \right\} \left\{ \begin{array}{l} 23654 \\ 50732 \\ 23450 \\ 43257 \\ 73237 \end{array} \right. \Rightarrow \text{IRMAK} = ?$
- A) 23654 B) 50732 C) 23450
D) 43257 E) 73237

3. I. ■KAHVAlTİ = ALTİKAHV
II. ■ADİMBAlŞİ = ?
- A) ADMİBAŞİ B) BAŞİADİM
C) BAŞAİDİM D) BAŞDİMİ
E) ADİMİŞAB

4. $\left. \begin{array}{l} \text{SARJ} \\ \text{MARS} \\ \text{JANT} \\ \text{TANK} \\ \text{KAMP} \end{array} \right\} \left\{ \begin{array}{l} \bigcirc \star \odot \nabla \\ \diamond \star + \vee \\ + \star \square \triangle \\ \triangle \star \square \bigcirc \\ \nabla \star \odot \diamond \end{array} \right. \Rightarrow \text{JANT} = ?$
- A) $\bigcirc \star \odot \nabla$ B) $\diamond \star + \vee$ C) $+ \star \square \triangle$
D) $\triangle \star \square \bigcirc$ E) $\nabla \star \odot \diamond$

5. $\begin{array}{|c|c|c|c|c|} \hline 4 & 3 & 1 & 8 & 5 \\ \hline 1 & 4 & 8 & 5 & 3 \\ \hline 8 & 1 & 5 & 3 & 4 \\ \hline 3 & 5 & 8 & 4 & 1 \\ \hline \end{array} \Rightarrow \boxed{?}$
- A) $\begin{array}{|c|c|c|c|c|} \hline 2 & 9 & 0 & 6 & 7 \\ \hline 0 & 2 & 6 & 7 & 9 \\ \hline 7 & 0 & 9 & 2 & 7 \\ \hline 9 & 7 & 6 & 0 & 2 \\ \hline \end{array}$ B) $\begin{array}{|c|c|c|c|c|} \hline 2 & 9 & 0 & 6 & 7 \\ \hline 0 & 2 & 6 & 7 & 9 \\ \hline 6 & 0 & 7 & 2 & 9 \\ \hline 9 & 6 & 2 & 7 & 0 \\ \hline \end{array}$
- C) $\begin{array}{|c|c|c|c|c|} \hline 2 & 9 & 0 & 6 & 7 \\ \hline 0 & 2 & 6 & 7 & 9 \\ \hline 6 & 0 & 2 & 9 & 7 \\ \hline 9 & 7 & 6 & 2 & 0 \\ \hline \end{array}$ D) $\begin{array}{|c|c|c|c|c|} \hline 2 & 9 & 0 & 6 & 7 \\ \hline 0 & 2 & 6 & 7 & 9 \\ \hline 6 & 0 & 7 & 9 & 2 \\ \hline 9 & 7 & 6 & 2 & 0 \\ \hline \end{array}$
- E) $\begin{array}{|c|c|c|c|c|} \hline 2 & 9 & 0 & 6 & 7 \\ \hline 0 & 2 & 6 & 9 & 7 \\ \hline 6 & 0 & 7 & 9 & 2 \\ \hline 9 & 7 & 6 & 2 & 0 \\ \hline \end{array}$

6. $\left. \begin{array}{l} \text{SABAH} \\ \text{BASMA} \\ \text{HASTA} \\ \text{TASMA} \\ \text{TAMAH} \end{array} \right\} \left\{ \begin{array}{l} 62327 \\ 12527 \\ 72162 \\ 62132 \\ 52132 \end{array} \right. \Rightarrow \text{TASMA} = ?$
- A) 62327 B) 12527 C) 72162
D) 62132 E) 52132

7. $\left. \begin{array}{l} \text{PANTER} \\ \text{TIRPAN} \\ \text{KARTAL} \\ \text{KARATE} \\ \text{PANAMA} \end{array} \right\} \left\{ \begin{array}{l} 286385 \\ 487898 \\ 286831 \\ 487316 \\ 306487 \end{array} \right. \Rightarrow \text{KARTAL} = ?$
- A) 286385 B) 487898 C) 286831
D) 487316 E) 306487

8. $\left. \begin{array}{l} \text{SÜRE} \\ \text{KARE} \\ \text{KÜRE} \\ \text{KASE} \\ \text{SARE} \end{array} \right\} \Rightarrow \text{KÜRE} = ?$

A) ★▲△+ B) △⊙□+ C) ★⊙□+
D) △▲□+ E) ★▲□+

9. $\left. \begin{array}{l} \text{HALI} \\ \text{SAHA} \\ \text{KITA} \\ \text{TEST} \\ \text{ALIK} \end{array} \right\} \Rightarrow \text{KITA} = ?$

A) 2453 B) 7245 C) 9619
D) 3592 E) 1272

10. $\left. \begin{array}{l} \boxed{\times} \\ \boxed{\div} \\ \boxed{\cdot} \\ \boxed{\div} \\ \boxed{\cdot} \end{array} \right\} \left\{ \begin{array}{l} 2139 \\ 3921 \\ 2153 \\ 1221 \\ 5339 \end{array} \right. \Rightarrow \boxed{\times} = ?$

A) 5339 B) 2139 C) 3921
D) 2153 E) 1221

11. I. ▲SALINCAK = ÇAKINSAL

II. ▲TANSİYON = ?

A) TANİSYON B) YONİSTAN
C) YONSİTAN D) YONTASİN
E) TANYONİS

12. EFLATUN = ?

A) -○□○△↑▽
B) ○□→△□▽↑
C) ↑△▽○△→□
D) □↑▽□○→△
E) -○↑△□▽↑

13. $\left. \begin{array}{l} \text{DELİ} \\ \text{FİLE} \\ \text{KALE} \\ \text{KAFİ} \\ \text{FİDE} \end{array} \right\} \left\{ \begin{array}{l} 86 \\ 63 \\ 24 \\ 62 \\ 83 \end{array} \right. \Rightarrow \text{DEFILE} = ?$

A) 642 B) 824 C) 364
D) 263 E) 246

14. $\begin{array}{|c|c|c|c|c|} \hline \text{A} & \text{E} & \text{O} & \text{U} & \text{I} \\ \hline \text{E} & \text{I} & \text{A} & \text{O} & \text{U} \\ \hline \text{U} & \text{O} & \text{A} & \text{E} & \text{I} \\ \hline \text{I} & \text{A} & \text{U} & \text{O} & \text{E} \\ \hline \end{array} \Rightarrow ?$

A) $\begin{array}{|c|c|c|c|c|} \hline 4 & 3 & 7 & 5 & 2 \\ \hline 3 & 2 & 4 & 7 & 5 \\ \hline 5 & 7 & 4 & 3 & 2 \\ \hline 4 & 2 & 5 & 7 & 3 \\ \hline \end{array}$ B) $\begin{array}{|c|c|c|c|c|} \hline 4 & 3 & 7 & 5 & 2 \\ \hline 3 & 2 & 4 & 7 & 5 \\ \hline 7 & 5 & 4 & 3 & 2 \\ \hline 2 & 4 & 5 & 7 & 3 \\ \hline \end{array}$

C) $\begin{array}{|c|c|c|c|c|} \hline 4 & 3 & 7 & 5 & 2 \\ \hline 3 & 5 & 2 & 7 & 4 \\ \hline 5 & 7 & 2 & 4 & 3 \\ \hline 2 & 4 & 5 & 7 & 3 \\ \hline \end{array}$ D) $\begin{array}{|c|c|c|c|c|} \hline 4 & 3 & 7 & 5 & 2 \\ \hline 3 & 2 & 4 & 7 & 5 \\ \hline 5 & 3 & 4 & 7 & 2 \\ \hline 2 & 4 & 5 & 7 & 3 \\ \hline \end{array}$

E) $\begin{array}{|c|c|c|c|c|} \hline 4 & 3 & 7 & 5 & 2 \\ \hline 3 & 2 & 4 & 7 & 5 \\ \hline 5 & 7 & 4 & 3 & 2 \\ \hline 2 & 4 & 5 & 7 & 3 \\ \hline \end{array}$

1. $\left. \begin{array}{l} 462 \\ 267 \\ 261 \\ 463 \\ 164 \end{array} \right\} \Rightarrow 462 = ?$

- A) $\square\square\star$ B) $\star\square\Delta$ C) $+\square\oplus$
D) $\star\square+$ E) $+\square\square$

2. $\left. \begin{array}{l} \text{SAAT} \\ \text{TAKI} \\ \text{KITA} \\ \text{SARI} \\ \text{KISA} \end{array} \right\} \Rightarrow \text{KITA} = ?$

- A) 1478 B) 1438 C) 7883
D) 3814 E) 7824

3. $\left. \begin{array}{l} \text{ADAY} \\ \text{ATKI} \\ \text{KATI} \\ \text{DAYI} \\ \text{KART} \end{array} \right\} \Rightarrow \text{ATKI} = ?$

- A) 4216 B) 5287 C) 2756
D) 5276 E) 2421

4. I. $\oplus\text{DAYANIŞMAK} = \text{İŞMAKDAYAN}$
II. $\Delta\text{DEDİKODUCU} = \text{EDİDOKUDUC}$
III. $\oplus\text{OLASILIK}\Delta = \text{İLİKOLAS}\Delta = \text{LİKİLOSA}$
IV. $\oplus\text{BAŞUZMAN}\Delta = ?$
- A) ZMANBAŞU B) ZAMNBAŞU
C) MZNAABUŞ D) MZNABAUŞ
E) ZMANABUŞ

5. $\left. \begin{array}{l} 9020 \\ 3090 \\ 6020 \\ 5030 \\ 6050 \end{array} \right\} \left\{ \begin{array}{l} \text{TY} \\ \text{TU} \\ \text{ZX} \\ \text{UZ} \\ \text{XY} \end{array} \right\} \Rightarrow 9050 = ?$

- A) UT B) XU C) XZ D) ZU E) YU

6. $\left. \begin{array}{l} \text{TARIM} \\ \text{SIRMA} \\ \text{ARMUT} \\ \text{SURAT} \\ \text{MISIR} \end{array} \right\} \left\{ \begin{array}{l} +\square\oplus\square\bigcirc \\ \Delta\bigcirc+\Delta\square \\ \oplus\square\bigcirc+\Delta \\ \square\Delta\bigcirc\square+ \\ \oplus\Delta\bigcirc\Delta\square \end{array} \right\} \Rightarrow \text{TASARIM} = ?$

- A) $\square\Delta\bigcirc\Delta\oplus\square+$ B) $\square\Delta\oplus\Delta\bigcirc\square+$
C) $\square\Delta\square\Delta\bigcirc\oplus+$ D) $\square\bigcirc\Delta\bigcirc\oplus\square+$
E) $\square+\Delta+\oplus+$

7. $\text{HAYALPEREST} = ?$

- A) $\times+-+\times\bigcirc\Delta\times\div\epsilon$
B) $+ \cdot - + \bigcirc \cdot \times \div \times \epsilon -$
C) $\times+-+\times\bigcirc\times\Delta\times\div\epsilon$
D) $\times--\bigcirc\cdot\epsilon\div+\epsilon\times$
E) $+ \cdot - \cdot \bigcirc \epsilon \times \epsilon \div \times$

8. $\text{KAZANMAZ} = ?$

- A) $\star\bigcirc\epsilon\bigcirc\star\text{T}\bigcirc+$
B) $\epsilon\star\text{T}\cdot\star+\bigcirc\star\text{T}$
C) $\text{T}\epsilon+\bigcirc\epsilon\star\text{T}\star$
D) $\bigcirc\star+\star\text{T}\epsilon\star\text{T}$
E) $+\star\epsilon\star\bigcirc+\star\epsilon$

9. $\left. \begin{array}{l} 487612 \\ 146932 \\ 341872 \\ 189612 \\ 473182 \end{array} \right\} \left\{ \begin{array}{l} \bigcirc \triangle \oplus + \bigcirc \blacksquare \\ \triangle \square \bigcirc \triangle \star \blacksquare \\ \square \triangle \star + \bigcirc \blacksquare \\ \square \star \triangle \bigcirc \triangle \blacksquare \\ \bigcirc \square + \oplus \triangle \blacksquare \end{array} \right. \Rightarrow 146932 = ?$
- A) $\bigcirc \triangle \oplus + \bigcirc \blacksquare$ B) $\triangle \square \bigcirc \triangle \star \blacksquare$
 C) $\square \triangle \star + \bigcirc \blacksquare$ D) $\square \star \triangle \bigcirc \triangle \blacksquare$
 E) $\bigcirc \square + \oplus \triangle \blacksquare$

10. $\left. \begin{array}{l} \text{KLNR} \\ \text{TMLK} \\ \text{RNTM} \\ \text{MTKL} \\ \text{RNMT} \end{array} \right\} \left\{ \begin{array}{l} \triangle \blacksquare \\ \bigcirc \triangle \\ \square \bigcirc \\ \bigcirc \triangle \\ \triangle \blacksquare \end{array} \right. \Rightarrow \text{LKRN} = ?$
- A) $\blacksquare \triangle$ B) $\triangle \bigcirc$ C) $\bigcirc \blacksquare$ D) $\square \bigcirc$ E) $\triangle \blacksquare$

11. $\left. \begin{array}{l} 4964 \\ 2516 \\ 4916 \\ 6425 \\ 1649 \end{array} \right\} \left\{ \begin{array}{l} 85 \\ 78 \\ 47 \\ 74 \\ 54 \end{array} \right. \Rightarrow 6416 = ?$
- A) 75 B) 48 C) 84 D) 85 E) 45

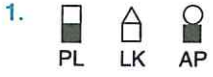
12. I. $\triangle \text{MANDOLİN} = \text{OLİNMAND}$
 II. $\text{MARJİNAL} \blacksquare = \text{NALJİMAR}$
 III. $\triangle \text{HANDİKAP} \blacksquare = \text{ANDPHİKA}$
 IV. $\triangle \text{NİTROJEN} \blacksquare = ?$
- A) İTRNOJE B) NİTEJRON
 C) NİTJERON D) İTRNNEJO
 E) İTRNNOJE

13. $\left. \begin{array}{l} \text{ATLET} \\ \text{SANAT} \\ \text{STANT} \\ \text{EVLAT} \\ \text{VASAT} \end{array} \right\} \left\{ \begin{array}{l} 62423 \\ 43273 \\ 42723 \\ 23813 \\ 16823 \end{array} \right. \Rightarrow \text{EVLAT} = ?$
- A) 62423 B) 43273 C) 42723
 D) 23813 E) 16823

14. I. $\text{DANIŞMAN} \star = \text{ADINMŞNA}$
 II. $\triangle \text{DİFÜZYON} = \text{NİFÜZYOD}$
 III. $\triangle \text{KEHKEŞAN} \star = \text{NEHKEŞAK} \star = \text{ENKHŞEKA}$
 IV. $\triangle \text{MERDİVEN} \star = ?$
- A) NERDİVEM B) ENDRVİME
 C) ENRDİVEM D) NERDİVEN
 E) ENDRVİEM

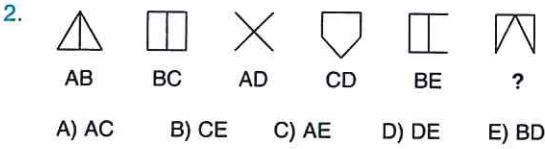
15. $\left. \begin{array}{l} \text{KEMAN} \\ \text{AKORT} \\ \text{METAN} \\ \text{ORTAK} \\ \text{MEKAN} \end{array} \right\} \left\{ \begin{array}{l} \square \star \vee \heartsuit \blacksquare \\ \nabla \triangle \star \square \bigcirc \\ \star \triangle \nabla \square \bigcirc \\ \nabla \triangle \blacksquare \square \bigcirc \\ \vee \heartsuit \blacksquare \star \end{array} \right. \Rightarrow \text{MAKROME} = ?$
- A) $\nabla \square \star \heartsuit \vee \nabla \triangle$
 B) $\nabla \square \heartsuit \star \vee \nabla \triangle$
 C) $\nabla \square \triangle \star \heartsuit \vee \triangle$
 D) $\nabla \square \star \heartsuit \nabla \vee \triangle$
 E) $\nabla \square \star \triangle \vee \nabla \heartsuit$

16. $\text{DALAMAN} = ?$
- A) 1868258 B) 7376817
 C) 3242521 D) 4353436
 E) 0242421



⇒ PLAKA = ?

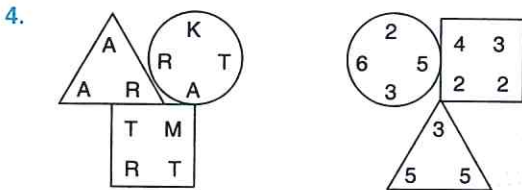
- A) ■□△○△ B) □■○△○
C) ■□○△△ D) ■□○△○
E) ■□△○△



3.

SARA	7734
ARAS	3477
ARSA	3747
SRAR	?

- A) 4737 B) 7443 C) 7374
D) 7437 E) 3774



- A) 29 B) 28 C) 27 D) 26 E) 25

5.

	1	2	3	4
1	H	F	i	Y
2	C	H	S	D
3	i	S	F	C
4	S	D	A	Y

2 3 3 1 1 4 4 3 1 1
↓
SİYAH

	5	6	7	8
5	T	Z	M	Y
6	A	Y	K	B
7	Z	B	M	Z
8	E	K	E	T

?
↓
BEYAZ

- A) 7687668578 B) 7687585578
C) 6885666557 D) 7687586578
E) 6885676575

6. $[\Delta, \star], [\blacksquare, \circ], [\circ, \square], [\odot, +], [\odot, \Delta], [+ , \blacksquare]$
↓ ↓ ↓ ↓ ↓ ↓
[x, y] [m, k] [m, t] [s, z] [x, z] ?
A) [x, s] B) [k, y] C) [m, y]
D) [s, z] E) [k, z]

7. I.  → EK
II.  → EL
III.  → KM
⇒  = ?

- A) MELEK B) KELEM C) EKLEM
D) ELMEK E) EMLEK



- A) 153 B) 143 C) 214 D) 342 E) 514

9. ABCDEFGHIJKLMNOPRSŞTUÜVYZ

KAŞIK → METAL

PAMUK → SENNL

TAKIM → ?

- A) UELAN B) ÜFLAN C) ÜELAN
D) ÜEJAN E) ÜELAL

10. $+ \circ - x \square \Delta \div \nabla \star$ $x \square \circ \star \rightarrow \Delta \circ \div \square$ $+ x - \div \rightarrow - + \nabla -$ $\div \nabla + \Delta \rightarrow ?$

- A) $\star \square \Delta \circ$ B) $\star \Delta \square -$ C) $\nabla \star \circ \square$
D) $\nabla \div - +$ E) $\star \square \div \nabla$

11.

1 ABC	2 DEF	3 GHI
4 JKL	5 MNO	6 PRS
7 TU	8 VY	9 Z

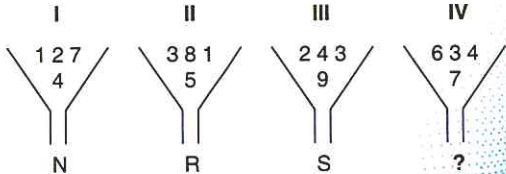
ENLZU → 2255444977

RYCNI → ?

- A) 668551133 B) 668811555333
C) 7766111533 D) 668811155333
E) 68153

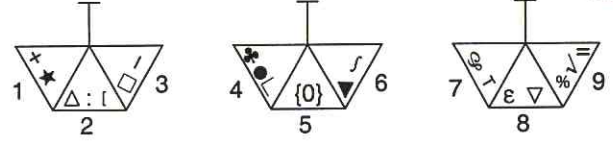
12. ABCDEFGHIJKLMNOPRSTUVYZ

12345.....



- A) T B) U C) V D) Y E) Z

13.



OT = : + → 5577999221

~ [] % - → ?

- A) 6222594433 B) 4625593311
C) 44422559931 D) 66225559933
E) 66222555933

14. ABCDEFGHIJKLMNOPRSŞTUÜVYZ

N + 1 M - 3 K + 7 = MJR

H - 2 R + 4 P - 6 = FUK

C - 2 O - 3 S + 2 = ALT

J + 1 Z - 4 I + 5 = ?

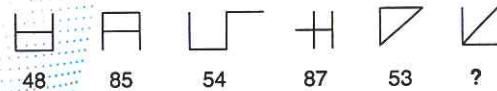
- A) KUL B) KÜN C) KUM D) KÜL E) KUT

15.

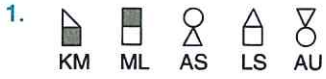
1	2	3	4	5	6	7	8	9
7	5	1	9	6	2	8	4	3
?								
1	2	3	4	5	6	7	8	9

- A) 369825147 B) 369821574
C) 369285174 D) 369825174
E) 369825714

16.

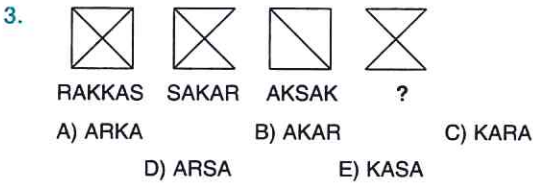
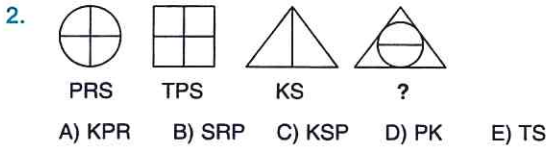


- A) 47 B) 34 C) 73 D) 75 E) 38



⇒ KUMSAL = ?

- A)     
 B)     
 C)     
 D)     
 E)     



4.

KARA	4282
AYAR	2528
YARI	5283
AYKIRI	?

- A) 253484 B) 254832 C) 254383
D) 245383 E) 425383

5.

	1	3	5	7	9
0	G	T	U	D	L
2	S	K	O	S	R
4	E	A	H	C	İ
6	Ü	B	P	Y	N
8	Ö	V	I	M	Z

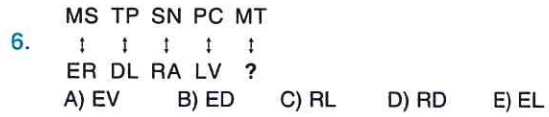
KİTAP

CEVİZ

2349034365

?

- A) 2507458369 B) 4741834969
C) 4741832789 D) 4741834989
E) 2541834787



7.

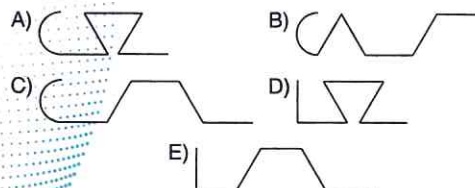
ab	13
cd	15
bc	53
ad	83
bd	58

⇒ cb = ?

- A) 85 B) 81 C) 18 D) 51 E) 38



II. ? → KASABA



9.  KR  RM  TK  ST  ?
- A) TM B) RS C) KS D) KM E) MS

10.

	1	2	3	4	5
a	U	E	L	D	B
b	K	T	P	H	İ
c	Ö	G	A	O	F
d	C	S	Z	R	V
e	Ü	N	I	Y	M

→ TARİF = ?
- A) a1b2c3d4e5 B) a2b3c4b5d1
C) b2c3d5b4c5 D) b2c3d4b3c5
E) b2c3d4b5c5

11. a7b3t1Δ★2c□
b27a → 3cb7
t□★1 → 1a2Δ
aΔ3c → ?
- A) 7★t□ B) 7★1□ C) 72★1
D) □1b2 E) □1c2

12. ● 78169352 → 62719358
● abcdefgh → dhacefgb
● 74zxot1y → ?
- A) xy7zo1t4 B) xy7zot41
C) xy7ozt14 D) xy7zot14
E) xy7oz1t4

13.  TAKA  LATA  BALA  TABA
- BALATA = ?

- A)  B)  C) 
D)  E) 

14.

a	e	c	k	k	t
c	a	t	c	k	r
7	3	2	5	5	6
7	2	2	1	1	5

⇒ arcket = ?
- A) 762153 B) 672531 C) 762531
D) 672351 E) 762351

15. ABCDEFGHIJKLMNOPRSTUUVYZ
KİTAP → NLVDŞ
RESİM → THULÖ
TANIK → ?

- A) YDPLN B) YDPKN C) VEPKN
D) VDPLN E) VDPKN

16.  37  84  75  23  58  ?
- A) 25 B) 72 C) 82 D) 74 E) 53



SAYI DİZİLERİ

NUMBER SERIES

19

TEST

Tests

304

SORU

Questions

1. 3 11 19 27 35 ?
A) 37 B) 40 C) 42 D) 43 E) 45

2. 7 10 15 18 23 ?
A) 24 B) 26 C) 28 D) 30 E) 32

3. 5 6 12 13 26 ? ?
A) 27,52 B) 28,56 C) 52,53
D) 27,54 E) 25,50

4. 2 3 5 8 12 17 ?
A) 23 B) 24 C) 25 D) 26 E) 27

5. 27 ? 18 15 13 12
A) 19 B) 20 C) 21 D) 22 E) 23

6. 4 8 11 22 25 ?
A) 27 B) 30 C) 44 D) 46 E) 50

7. 4 12 8 24 20 60 ?
A) 40 B) 56 C) 64 D) 112 E) 180

8. 6 12 5 10 3 ?
A) 4 B) 5 C) 6 D) 7 E) 8

9. 28 32 25 29 22 ?

A) 15 B) 18 C) 26 D) 29 E) 34

10. 40 45 36 41 32 37 ?

A) 28 B) 32 C) 42 D) 46 E) 49

11. 6 8 12 18 26 ?

A) 32 B) 34 C) 36 D) 38 E) 40

12. 3 4 7 12 19 ?

A) 25 B) 26 C) 27 D) 28 E) 29

13. 1 3 7 15 31 ?

A) 61 B) 62 C) 63 D) 64 E) 65

14. 7 9 18 20 40 ?

A) 36 B) 42 C) 54 D) 60 E) 80

15. 7 21 18 54 51 ?

A) 149 B) 150 C) 151 D) 152 E) 153

16. 2 11 46 141 286 ?

A) 291 B) 292 C) 293 D) 294 E) 295

1. 7 6 10 9 13 ?

- A) 8 B) 12 C) 14 D) 16 E) 17

2. 6 8 11 13 16 ?

- A) 17 B) 18 C) 19 D) 20 E) 21

3. 8 5 15 12 36 33 ?

- A) 30 B) 36 C) 42 D) 54 E) 99

4. 2 7 14 19 38 ?

- A) 43 B) 52 C) 60 D) 66 E) 76

5. 1 2 6 15 31 ? 92

- A) 34 B) 38 C) 48 D) 56 E) 60

6. 1 2 5 14 41 ?

- A) 81 B) 83 C) 107 D) 121 E) 122

7. 3 7 5 11 8 16 12 ?

- A) 17 B) 22 C) 24 D) 27 E) 29

8. 6 12 10 30 27 108 ?

- A) 104 B) 110 C) 294 D) 420 E) 424

9. 1 9 25 49 ? 121

A) 64 B) 81 C) 101 D) 121 E) 169

10. 0 7 26 63 124 ?

A) 87 B) 97 C) 117 D) 143 E) 215

11. 1 4 9 ? 25 36

A) 16 B) 17 C) 18 D) 19 E) 20

12. 2 5 10 17 26 ?

A) 33 B) 35 C) 37 D) 39 E) 41

13. 4 7 13 25 49 ?

A) 94 B) 95 C) 96 D) 97 E) 98

14. 3 8 18 38 78 ?

A) 98 B) 113 C) 138 D) 143 E) 158

15. 0 4 16 36 ?

A) 48 B) 60 C) 64 D) 82 E) 96

16. 2 3 6 11 18 ?

A) 21 B) 23 C) 25 D) 27 E) 30

1. 4 5 15 16 48 ? ?

- A) 47, 1478 B) 49, 145 C) 144, 145
D) 47, 141 E) 49, 147

2. 24 23 21 18 14 ?

- A) 9 B) 10 C) 11 D) 12 E) 13

3. 2 7 9 16 25 41 ?

- A) 68 B) 67 C) 66 D) 65 E) 64

4. 13 17 25 32 37 ?

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

5. 33 34 17 18 9 10 ?

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

6. 14 25 49 169 ?

- A) 164 B) 196 C) 225 D) 256 E) 289

7. 8 14 24 31 42 50 ?

- A) 58 B) 59 C) 60 D) 61 E) 62

8. 1 5 13 29 61 ?

- A) 123 B) 124 C) 125 D) 126 E) 127

9. 4 11 31 90 266 ?

- A) 793 B) 794 C) 795 D) 796 E) 797

10. 4 6 8 7 16 8 32 9 ? ?

- A) 30, 18 B) 64, 10 C) 60, 10
-
- D) 23, 33 E) 64, 8

11. 7 2 11 7 17 14 25 ? ?

- A) 22, 34 B) 23, 35 C) 24, 33
-
- D) 23, 33 E) 24, 35

12. 2 3 7 16 32 ?

- A) 54 B) 55 C) 56 D) 57 E) 58

13. 4 5 13 40 104 ?

- A) 225 B) 226 C) 227 D) 228 E) 229

14. 10 13 19 26 40 55 ?

- A) 71 B) 78 C) 85 D) 92 E) 95

15. 2 4 7 28 33 198 ?

- A) 205 B) 204 C) 203 D) 202 E) 201

16. 24 26 19 22 16 20 ?

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

1. 3 8 23 68 ?

A) 122 B) 164 C) 172 D) 186 E) 203

2. 1 8 43 ? 1093

A) 63 B) 103 C) 218 D) 468 E) 613

3. 2 7 17 37 ?

A) 47 B) 57 C) 67 D) 77 E) 87

4. 325 109 37 13 ?

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

5. 87 80 66 45 ?

A) 36 B) 30 C) 24 D) 17 E) 9

6. 32 35 41 50 62 ?

A) 90 B) 77 C) 63 D) 59 E) 45

7. ? 8 13 21 34 ?

A) 5, 55 B) 3, 48 C) 2, 63
D) 5, 67 E) 3, 71

8. 70 34 16 ? 2,5

A) 4 B) 5 C) 7 D) 8 E) 9

9. 63 31 15 7 ?

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

10. 5 7 10 14 19 ?

- A) 20 B) 22 C) 24 D) 25 E) 26

11. 66 34 18 10 6 ?

- A) 14 B) 2 C) 3 D) 4 E) 5

12. 4 7 13 25 ?

- A) 30 B) 36 C) 41 D) 49 E) 56

13. 1 3 4 7 11 ?

- A) 18 B) 17 C) 16 D) 15 E) 14

14. 81 54 36 24 ?

- A) 13 B) 16 C) 18 D) 20 E) 21

15. 3 7 16 35 ? 153

- A) 68 B) 71 C) 74 D) 81 E) 83

16. 1 5 21 85 ?

- A) 284 B) 295 C) 306 D) 321 E) 341

1. 0 1 3 6 10 ?

A) 12 B) 14 C) 15 D) 17 E) 19

2. 7 9 13 19 27 ?

A) 32 B) 37 C) 41 D) 49 E) 54

3. 0 1 4 9 16 ?

A) 17 B) 21 C) 23 D) 25 E) 36

4. 11 12 12 14 28 31 ?

A) 35 B) 49 C) 62 D) 87 E) 93

5. 13 11 22 20 40 ?

A) 20 B) 30 C) 38 D) 44 E) 80

6. 40 ? 13 12 4 3

A) 18 B) 24 C) 27 D) 36 E) 39

7. 5 2 7 3 11 6 17 ?

A) 11 B) 13 C) 19 D) 20 E) 25

8. 5 10 7 14 11 22 ?

A) 15 B) 17 C) 19 D) 25 E) 44

9. 4 8 32 35 105 ? 214

A) 105 B) 107 C) 108 D) 135 E) 212

10. 7 4 12 8 ? 27

A) 11 B) 24 C) 25 D) 29 E) 32

11. 5 13 40 104 ?

A) 111 B) 125 C) 176 D) 229 E) 287

12. 9 10 19 44 ? 174

A) 57 B) 81 C) 87 D) 93 E) 107

13. 17 16 48 43 ? 292

A) 15 B) 36 C) 50 D) 295 E) 301

14. 25 32 37 47 58 ?

A) 70 B) 71 C) 72 D) 73 E) 74

15. 3 21 15 75 ? 213

A) 65 B) 71 C) 111 D) 145 E) 201

16. 12 14 18 26 38 ?

A) 40 B) 42 C) 54 D) 60 E) 62

1. 4 10 22 46 ?

- A) 64 B) 72 C) 84 D) 94 E) 98

2. $\sqrt{3}$ 2 3 8 ?

- A) 15 B) 16 C) 32 D) 41 E) 63

3. 11 16 26 46 86 ?

- A) 89 B) 143 C) 146 D) 160 E) 166

4. 0 1 2 5 ? 677

- A) 26 B) 125 C) 375 D) 364 E) 676

5. -7 -4 0 5 ? 18

- A) 7 B) 9 C) 11 D) 15 E) 16

6. 144 72 36 ? 9

- A) 27 B) 24 C) 21 D) 18 E) 15

7. ? 96 24 8 4 4

- A) 720 B) 480 C) 288 D) 169 E) 147

8. 39 38 19 ? 9 8

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

9. 120 30 10 5 ?

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

10. 17 31 59 ? 227

A) 67 B) 115 C) 81 D) 97 E) 109

11. 12 16 25 44 78 ?

A) 96 B) 112 C) 124 D) 132 E) 148

12. 8 18 32 54 ?

A) 73 B) 84 C) 92 D) 104 E) 108

13. 78 93 105 111 ?

A) 112 B) 114 C) 121 D) 169 E) 171

14. 2 2 3 6 8 24 27 ?

A) 31 B) 39 C) 45 D) 67 E) 108

15. 17 18 20 25 ?

A) 29 B) 32 C) 37 D) 50 E) 51

16. 2 3 4 6 12 36 ?

A) 72 B) 108 C) 144 D) 156 E) 196

1. 4 5 3 6 ? 7 1

A) 2 B) 5 C) 7 D) 8 E) 10

2. 2 4 7 14 ? 34 37

A) 11 B) 13 C) 15 D) 17 E) 21

3. 4 6 10 18 34 ?

A) 32 B) 45 C) 56 D) 64 E) 66

4. 7 8 10 14 22 ?

A) 14 B) 16 C) 38 D) 40 E) 45

5. -3 2 12 27 47 72 ?

A) 25 B) 47 C) 72 D) 97 E) 102

6. 32 26 14 10 ?

A) 2 B) 4 C) 6 D) 9 E) 10

7. 8 24 21 ? 60 180

A) 67 B) 63 C) 57 D) 54 E) 52

8. 3 5 8 13 21 ?

A) 23 B) 28 C) 33 D) 36 E) 43

9. 105 99 81 72 ?

- A) 68 B) 63 C) 60 D) 59 E) 51

10. 2 6 5 9 27 ? 30

- A) 31 B) 26 C) 25 D) 28 E) 29

11. 1 2 4 8 ? 32

- A) 16 B) 18 C) 20 D) 22 E) 24

12. 35 40 20 30 15 ? 15

- A) 24 B) 28 C) 30 D) 36 E) 40

13. 5 6 8 12 20 ?

- A) 24 B) 30 C) 36 D) 40 E) 56

14. 7 10 13 19 37 ?

- A) 45 B) 54 C) 72 D) 81 E) 109

15. 72 86 134 146 ?

- A) 150 B) 152 C) 158 D) 170 E) 185

16. 51 61 73 115 ?

- A) 120 B) 125 C) 135 D) 140 E) 157

1. 10 11 12 31 32 ?
A) 25 B) 35 C) 38 D) 42 E) 52

2. 12 36 18 ? 27 81
A) 9 B) 18 C) 36 D) 54 E) 74

3. 7 5 10 15 13 45 16 ?
A) 15 B) 18 C) 48 D) 90 E) 135

4. 3 3 6 18 ? 360
A) 84 B) 72 C) 66 D) 60 E) 48

5. 20 11 21 31 22 15 ?
A) 34 B) 33 C) 32 D) 31 E) 30

6. 13 14 28 25 5 6 12 9 ?
A) 3 B) 5 C) 6 D) 14 E) 28

7. 3 5 6 10 12 20 24 40 ?
A) 45 B) 48 C) 54 D) 60 E) 80

8. 64 8 24 25 5 15 16 ?
A) 4 B) 8 C) 16 D) 20 E) 32

9. 0 1 2 5 ? 677

- A) 15 B) 23 C) 24 D) 25 E) 26

10. 72 ? 54 45 36 27 18

- A) 59 B) 63 C) 65 D) 67 E) 71

11. 47 58 71 79 ? 109

- A) 83 B) 87 C) 95 D) 97 E) 101

12. 12 22 23 42 25 ?

- A) 34 B) 36 C) 54 D) 62 E) 64

13. 80 79 77 71 ? -73

- A) 24 B) 47 C) 72 D) 88 E) 120

14. 5 6 10 19 35 ?

- A) 39 B) 42 C) 60 D) 81 E) 109

15. 1 2 6 33 ?

- A) 75 B) 98 C) 169 D) 256 E) 289

16. 1 3 9 21 41 ?

- A) 48 B) 61 C) 71 D) 82 E) 100

1. 3 4 6 9 13 18 ?

A) 20 B) 22 C) 24 D) 28 E) 32

2. 7 8 11 16 23 ?

A) 27 B) 32 C) 38 D) 40 E) 45

3. 10 12 16 22 30 ?

A) 32 B) 36 C) 38 D) 40 E) 45

4. 5 9 17 33 65 ?

A) 67 B) 71 C) 119 D) 125 E) 129

5. 4 8 6 12 10 20 18 ?

A) 20 B) 24 C) 30 D) 34 E) 36

6. 7 15 31 63 127 ?

A) 130 B) 149 C) 235 D) 255 E) 301

7. 9 8 16 15 30 29 ?

A) 28 B) 30 C) 37 D) 48 E) 58

8. 10 5 25 20 100 95 ?

A) 90 B) 100 C) 325 D) 475 E) 495

9. 2 8 5 20 17 68 ?
A) 65 B) 71 C) 86 D) 107 E) 272

10. 19 20 17 22 15 24 ?
A) 13 B) 17 C) 20 D) 22 E) 26

11. 17 34 24 48 38 76 ?
A) 52 B) 60 C) 66 D) 142 E) 152

12. 5 15 12 36 33 99 96 ?
A) 99 B) 188 C) 218 D) 268 E) 288

13. 71 69 23 21 7 5 ?
A) $\frac{5}{3}$ B) 3 C) 2 D) 1 E) $\frac{10}{3}$

14. 1 4 9 61 52 63 ?
A) 48 B) 56 C) 64 D) 94 E) 100

15. 9 27 20 60 53 159 ?
A) 123 B) 140 C) 152 D) 163 E) 171

16. 2 11 56 281 1406 ?
A) 1412 B) 2766 C) 5556 D) 6051 E) 7031

1. 21 23 29 47 75 ?

- A) 80 B) 97 C) 110 D) 121 E) 128

2. 124 43 16 7 ?

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

3. 3 8 24 51 67 ?

- A) 68 B) 74 C) 78 D) 83 E) 90

4. 2 3 4 12 10 28 24 58 ? ?

- A) 54, 110 B) 58, 116 C) 52, 110
D) 58, 112 E) 54, 116

5. 2 4 9 10 14 17 31 38 ? ?

- A) 62, 73 B) 60, 71 C) 61, 72
D) 60, 73 E) 62, 71

6. 59 14 196 16 256 ? ?

- A) 9, 81 B) 10, 100 C) 11, 121
D) 12, 144 E) 13, 169

7. 1 1 2 3 5 8 8 26 ? ?

- A) 19, 75 B) 17, 81 C) 15, 78
D) 17, 75 E) 19, 81

8. 1 1 3 2 3 9 11 22 ? ?

- A) 17, 73 B) 16, 74 C) 15, 73
D) 15, 76 E) 17, 76

9. 48 97 60 81 66 72 78 63 ? ?
 A) 102, 52 B) 106, 51 C) 104, 52
 D) 93, 54 E) 102, 54

10. 2 1 5 3 ? ? 71 31 359 129
 A) 15, 10 B) 16, 9 C) 17, 9
 D) 17, 8 E) 16, 8

11. 98 606 50 201 26 66 14 21 ? ? 5 1
 A) 8, 6 B) 8, 4 C) 7, 6
 D) 7, 4 E) 6, 4

12. 1 2 6 9 26 34 ? ? 166 196 171 194
 A) 80, 100 B) 81, 99 C) 82, 98
 D) 82, 99 E) 81, 98

13. 2 2 4 6 10 16 26 42 ?
 A) 66 B) 68 C) 70 D) 72 E) 74

14. 0 2 3 5 8 10 15 17 24 26 ? ?
 A) 38, 40 B) 33, 35 C) 37, 39
 D) 36, 38 E) 35, 37

15. 21 34 23 22 29 18 47 10 ? ?
 A) 73, 11 B) 74, 9 C) 74, 10
 D) 75, 10 E) 75, 9

16. 2 1 3 3 6 7 11 13 ? ?
 A) 16, 23 B) 18, 19 C) 18, 23
 D) 16, 21 E) 18, 21

Aşağıdaki sayı dizilerinde kuralı bozan sayıyı bulunuz.
Which number breaks the rule in the sequence below.

1. 5 6 9 11 15 20
A) 5 B) 9 C) 11 D) 15 E) 20
2. 2 3 4 12 48 240
A) 3 B) 4 C) 12 D) 48 E) 240
3. 7 9 18 36 40 42 84
A) 7 B) 18 C) 36 D) 42 E) 84
4. 11 13 17 25 36 73
A) 11 B) 17 C) 25 D) 36 E) 73
5. 13 9 12 14 28 24 48
A) 9 B) 12 C) 28 D) 24 E) 48
6. 17 34 33 45 65 130 129
A) 17 B) 33 C) 45 D) 130 E) 129
7. 0 3 1 2 4 12 15
A) 0 B) 1 C) 2 D) 3 E) 15
8. 3 4 7 16 43 86 367
A) 3 B) 4 C) 16 D) 86 E) 367

9. 4 5 10 9 8 16 13 14 28 25
A) 5 B) 9 C) 16 D) 14 E) 25

10. 64 74 85 98 115 119 127
A) 64 B) 85 C) 98 D) 115 E) 119

11. 3 15 14 60 57 285 282
A) 3 B) 14 C) 57 D) 285 E) 282

12. 2 4 1 1 -2 2 1
A) -2 B) 1 C) 2 D) 4 E) 5

13. 2 6 12 20 30 40 56
A) 2 B) 12 C) 20 D) 30 E) 40

14. 14 15 18 20 30 39 50
A) 15 B) 18 C) 20 D) 39 E) 50

15. 119 128 144 160 167 160
A) 119 B) 128 C) 144 D) 160 E) 167

16. 120 60 180 130 270 135 405
A) 60 B) 120 C) 405 D) 130 E) 270

Aşağıdaki sayı dizilerinde kuralı bozan sayı yerine gelecek sayıyı bulunuz.

Which number should be stood of the number, which breaks the rule in the sequence given below.

1. 9 12 15 18 19 24 27

A) 10 B) 14 C) 17 D) 21 E) 34

2. 5 5 10 20 120 600

A) 7 B) 25 C) 30 D) 90 E) 540

3. 19 38 35 70 60 134 131

A) 20 B) 46 C) 67 D) 85 E) 128

4. 7 8 11 14 23 32 43

A) 12 B) 16 C) 20 D) 24 E) 28

5. 360 60 180 30 90 60 45

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

6. 98 82 74 72 68 67

A) 65 B) 67 C) 68 D) 69 E) 70

7. 3 4 8 17 20 58 94

A) 17 B) 22 C) 27 D) 33 E) 85

8. 113 111 107 105 93 83 71

A) 101 B) 103 C) 109 D) 112 E) 121

9. 8 15 29 57 113 225
A) 57 B) 83 C) 107 D) 201 E) 212

10. 1 4 9 16 26 36 49
A) 5 B) 15 C) 20 D) 25 E) 30

11. 763 762 758 749 740 708
A) 699 B) 718 C) 720 D) 729 E) 733

12. 9 12 15 23 39 71 135
A) 7 B) 11 C) 19 D) 28 E) 49

13. 7 21 16 48 60 129 124
A) 14 B) 33 C) 43 D) 87 E) 115

14. 1 4 9 27 81 244 729
A) 5 B) 11 C) 28 D) 82 E) 245

15. 3 7 10 17 23 44 71
A) 9 B) 14 C) 27 D) 36 E) 84

16. 116 124 131 136 146 150 170
A) 129 B) 138 C) 145 D) 157 E) 173

1. $\begin{matrix} 47 & 55 & 59 & 69 & 73 \\ 50 & 52 & 62 & 66 & ? \end{matrix}$

- A) 67 B) 70 C) 73 D) 76 E) 79

2. $\begin{matrix} 2 & 3 & 4 & x & 6 \\ 2 & 6 & 12 & 20 & y \end{matrix} \} \Rightarrow x, y = ?$

- A) 4, 36 B) 5, 25 C) 5, 30
D) 40, 30 E) 5, 10

3. $\begin{matrix} 11 & 20 & 31 & 44 & 59 \\ 18 & 29 & 42 & ? & 74 \end{matrix}$

- A) 45 B) 47 C) 50 D) 53 E) 57

4. $\begin{matrix} 3 & 5 & 10 & 20 & 37 \\ 4 & 9 & 19 & 36 & ? \end{matrix}$

- A) 41 B) 49 C) 51 D) 57 E) 62

5. $\begin{matrix} \frac{9}{5} & \frac{8}{11} & \frac{13}{11} & \frac{14}{x} & \frac{17}{y} \end{matrix} \} \Rightarrow x, y = ?$

- A) 15, 17 B) 15, 18 C) 13, 17
D) 15, 19 E) 19, 21

6. $\begin{matrix} \frac{3}{5} & \frac{10}{6} & \frac{12}{20} & \frac{40}{x} & \frac{48}{y} \end{matrix} \} \Rightarrow x, y = ?$

- A) 24, 80 B) 24, 50 C) 20, 50
D) 24, 96 E) 20, 24

7. $\begin{matrix} 25 & 20 & x & 10 & 5 & 0 \\ 150 & 100 & 60 & 30 & y & 0 \end{matrix} \} \Rightarrow x, y = ?$

- A) 5, 5 B) 10, 10 C) 15, 15
D) 10, 15 E) 15, 10

8. $\begin{matrix} 7 & 8 & 10 & 13 & 17 & y \\ 7 & 16 & x & 52 & 85 & 132 \end{matrix} \} \Rightarrow x - y = ?$

- A) 8 B) 10 C) 12 D) 14 E) 16

9. $\begin{array}{ccccc} 1 & 4 & 16 & 64 & ? \\ 2 & ? & 47 & 191 & 767 \end{array}$
 A) 144, 12 B) 169, 13 C) 243, 11
 D) 256, 11 E) 315, 13

10. $\begin{array}{ccccc} 18 & 90 & 54 & 36 & ? \\ 1 & 9 & 5 & 3 & ? \end{array}$
 A) 27, 3 B) 99, 12 C) 63, 5
 D) 45, 4 E) 72, 10

11. $\begin{array}{ccccccc} 111 & 114 & 120 & y & 129 & 141 & 147 \\ 1 & 4 & 0 & 6 & 18 & x & 28 \end{array} \Rightarrow y, x = ?$
 A) 123, 4 B) 123, 6 C) 125, 6
 D) 125, 4 E) 130, 8

12. $\begin{array}{ccccc} 3 & 6 & 12 & x & 48 & 96 \\ 1 & 4 & 10 & 22 & 46 & y \end{array} \Rightarrow y - x = ?$
 A) 55 B) 70 C) 77 D) 94 E) 180

13. $\begin{array}{ccccc} 7 & 8 & 11 & 16 & 23 & y \\ 77 & 72 & x & 80 & 69 & 32 \end{array} \Rightarrow x, y = ?$
 A) 77, 32 B) 66, 25 C) 22, 64
 D) 33, 96 E) 44, 128

14. $\begin{array}{ccccc} 4 & 9 & 14 & 19 & ? \\ ? & 7 & 12 & 17 & 22 \end{array}$
 A) 24, 3 B) 24, 2 C) 24, 8
 D) 30, 12 E) 1, 2

15. $\begin{array}{ccccc} 72 & 85 & 96 & 105 & 120 & 137 \\ x & 13 & 15 & 6 & y & 11 \end{array} \Rightarrow x, y = ?$
 A) 18, 0 B) 18, 3 C) 9, 3
 D) 9, 0 E) 18, 9

16. $\begin{array}{ccccc} 35 & 48 & 63 & 80 & y \\ 15 & 32 & 18 & x & 81 \end{array} \Rightarrow y - x = ?$
 A) 0 B) 19 C) 47 D) 99 E) 10

1. $\begin{matrix} 5 & 7 & 9 & 11 & 13 & x \\ 10 & 14 & 18 & 22 & y & 30 \end{matrix} \} \Rightarrow x, y = ?$
- A) 15, 27 B) 7, 26 C) 17, 25
D) 14, 24 E) 15, 26

2. $\begin{matrix} 13 & 12 & 15 & 18 & 17 & 24 \\ 9 & 14 & 15 & 16 & 21 & x \end{matrix} \} \Rightarrow x = ?$
- A) 18 B) 20 C) 21 D) 24 E) 28

3. $\begin{matrix} 7 & 14 & 11 & 18 & x & 22 & 19 \\ 6 & 12 & 8 & 14 & 10 & 16 & 12 \end{matrix} \} \Rightarrow x = ?$
- A) 15 B) 17 C) 19 D) 20 E) 21

4. $\begin{matrix} 3 & 6 & 11 & 22 & x & 54 & 59 \\ 3 & 5 & 8 & 13 & 22 & y & 72 \end{matrix} \} \Rightarrow x + y = ?$
- A) 29 B) 34 C) 45 D) 66 E) 75

5. $\begin{matrix} 45 & 24 & 79 & 48 & 15 \\ 20 & 8 & 63 & 32 & ? \end{matrix}$
- A) 5 B) 15 C) 25 D) 35 E) 45

6. $\begin{matrix} 17 - 25 & 47 - 58 & y \\ \uparrow & \downarrow & \uparrow & \downarrow & \uparrow \\ 13 & 32 - 37 & 71 - x \end{matrix} \} \Rightarrow y - x = ?$
- A) 7 B) 10 C) 14 D) 16 E) 20

7. $\begin{matrix} 5 & 12 & x & 44 & 75 \\ 5 & 6 & 8 & 11 & y \end{matrix} \} \Rightarrow x, y = ?$
- A) 24, 15 B) 16, 30 C) 16, 25
D) 24, 25 E) 24, 50

8. $\begin{matrix} 2 & x & 8 & 40 & 32 \\ 5 & 4 & 20 & 16 & 80 \end{matrix} \} \Rightarrow x = ?$
- A) 5 B) 6 C) 8 D) 10 E) 12

9. $\begin{matrix} 78 & 58 & 45 & 37 & 26 & 12 \\ 15 & 13 & 9 & 10 & 8 & ? \end{matrix}$
 A) 2 B) 3 C) 4 D) 5 E) 6

10. $\begin{matrix} 3 & 5 & 8 & 11 & 15 & 17 \\ 8 & 16 & 23 & 34 & 44 & ? \end{matrix}$
 A) 49 B) 50 C) 51 D) 52 E) 53

11. $\begin{matrix} 1 & 4 & x & 16 & 25 \\ y & 1 & 6 & 13 & 22 \end{matrix} \} \Rightarrow x+y=?$
 A) 5 B) 7 C) 9 D) 14 E) 17

12. $\begin{matrix} 12 & 15 & x & 21 & 24 & 27 \\ 36 & 90 & 162 & 63 & y & 243 \end{matrix} \} \Rightarrow y-x=?$
 A) 61 B) 78 C) 92 D) 107 E) 126

13. $\begin{matrix} 6 & 3 & 21 & 9 & 81 & 33 \\ 2 & x & 5 & 41 & y & 161 \end{matrix}$
 $\Rightarrow y-x=?$
 A) 4 B) 5 C) 6 D) 7 E) 8

14. $\begin{matrix} 7 & 13 & 24 & 39 & 49 & y \\ 53 & 47 & 36 & x & 11 & 60 \end{matrix} \} \Rightarrow x \cdot y=?$
 A) 0 B) 80 C) 120 D) 450 E) 875

15. $\begin{matrix} 2 & 4 & 12 & 8 & 24 & y \\ 72 & 36 & 12 & 18 & x & 9 \end{matrix} \} \Rightarrow x \cdot y=?$
 A) 46 B) 62 C) 80 D) 96 E) 105

16. $\begin{matrix} 169 & y & 81 & 49 & 25 \\ 13 & 11 & 9 & 7 & x \end{matrix} \} \Rightarrow x, y=?$
 A) 121, 169 B) 4, 121 C) 5, 81
 D) 5, 121 E) 9, 49

1. 15 19 27 32 33 ?

A) 33 B) 34 C) 38 D) 41 E) 44

2. 132 138 150 156 168 ?

A) 176 B) 180 C) 183 D) 187 E) 192

3. 124 132 138 162 174 ?

A) 184 B) 192 C) 196 D) 202 E) 210

4. 16 65 186 411 447 ?

A) 705 B) 672 C) 624 D) 582 E) 541

5. 213 322 413 432 730 ?

A) 739 B) 742 C) 803 D) 815 E) 824

6. 24 39 416 525 636 ?

A) 724 B) 735 C) 743 D) 747 E) 749

7. 1 3 4 7 11 18 ?

A) 19 B) 23 C) 27 D) 29 E) 36

8. 148 121 ? 73 52 33

A) 96 B) 94 C) 88 D) 86 E) 84

9. 123 268 325 415 527 ?

- A) 648 B) 639 C) 635 D) 629 E) 625

10. $\begin{matrix} 15 & 7 & 17 & x & 19 & 15 & y \\ 5 & 16 & 9 & 18 & 13 & 20 & 17 \end{matrix} \} \Rightarrow x, y = ?$

- A) 18, 21 B) 11, 21 C) 18, 25
D) 18, 24 E) 18, 22

11. $\begin{matrix} 2 & 7 & 10 & 15 & 25 & 30 \\ 28 & 23 & 20 & 15 & 5 & x \end{matrix} \} \Rightarrow x = ?$

- A) 0 B) 5 C) 7 D) 9 E) 15

12. $\begin{matrix} 2 & 222 & 5 & 54 & 17 & 12 & ? \\ 446 & 3 & 110 & 9 & 26 & 33 & ? \end{matrix}$

- A) 66, 6 B) 65, 7 C) 64, 5
D) 65, 5 E) 64, 7

13. $\begin{matrix} 14 & 27 & ? & 105 & 219 \\ 5 & 9 & ? & 6 & 12 \end{matrix}$

- A) 55, 10 B) 54, 9 C) 53, 8
D) 52, 7 E) 51, 6

14. $\begin{matrix} 13 & 18 & 23 & 28 & 33 & 38 \\ 4 & 9 & 5 & x & 6 & 11 \end{matrix} \} \Rightarrow x = ?$

- A) 5 B) 8 C) 9 D) 10 E) 12

15. 4 5 6 8 11 16 24 ?

- A) 33 B) 34 C) 35 D) 36 E) 37

16. $\begin{matrix} 189 & 751 & 246 & 335 & 427 \\ 872 & 355 & 824 & 915 & ? \end{matrix}$

- A) 609 B) 814 C) 827 D) 819 E) 724

1. $\frac{a_1}{3} \quad \frac{a_2}{7} \quad \frac{a_3}{11} \quad \frac{a_4}{15} \quad \dots \quad \frac{a_{18}}{?}$

- A) 65 B) 68 C) 71 D) 74 E) 79

2. $\frac{1}{3} \quad \frac{2}{9} \quad \frac{3}{15} \quad \frac{4}{21} \quad \frac{5}{27} \quad \dots \quad \frac{32}{?}$

- A) 189 B) 184 C) 181 D) 178 E) 175

3. $\frac{a_1}{6} \quad \frac{a_2}{14} \quad \frac{a_3}{22} \quad \frac{a_4}{30} \quad \dots \quad \frac{a_n}{334}$
 $\Rightarrow n = ?$

- A) 39 B) 40 C) 41 D) 42 E) 43

4. $\frac{1}{23} \quad \frac{2}{34} \quad \frac{3}{45} \quad \frac{4}{56} \quad \dots \quad \frac{x}{639}$
 $\Rightarrow x = ?$

- A) 55 B) 56 C) 57 D) 58 E) 59

5. $\frac{a_1}{x} \quad \frac{a_2}{y} \quad \frac{a_3}{z} \quad \dots \quad \frac{a_{27}}{230} \quad \frac{a_{28}}{238} \quad \dots \quad \frac{a_{54}}{446}$

$\Rightarrow x + y + z = ?$

- A) 48 B) 52 C) 56 D) 60 E) 68

6. $\frac{1}{4} \quad \frac{2}{5} \quad \frac{3}{7} \quad \frac{4}{10} \quad \frac{5}{14} \quad \dots \quad \frac{41}{?}$

- A) 764 B) 784 C) 792 D) 816 E) 824

7. $\frac{a_1}{2} \quad \frac{a_2}{5} \quad \frac{a_3}{11} \quad \frac{a_4}{20} \quad \dots \quad \frac{a_{17}}{?}$

- A) 410 B) 402 C) 394 D) 388 E) 382

8. $\frac{a_1}{7} \quad \frac{a_2}{8} \quad \frac{a_3}{12} \quad \frac{a_4}{21} \quad \frac{a_5}{37} \quad \dots \quad \frac{a_{16}}{?}$

- A) 1177 B) 1194 C) 1217 D) 1247 E) 1334

9. $\frac{a_1}{15} \quad \frac{a_2}{26} \quad \frac{a_3}{39} \quad \frac{a_4}{54} \quad \frac{a_5}{71} \quad \dots \quad \frac{a_{23}}{?}$

- A) 679 B) 688 C) 704 D) 719 E) 729

10. $\frac{1}{-24} \quad \frac{2}{-14} \quad \frac{3}{-2} \quad \frac{4}{12} \quad \frac{5}{28} \quad \dots \quad \frac{19}{?}$

- A) 506 B) 486 C) 462 D) 454 E) 438

11. $\frac{1}{-48} \quad \frac{2}{-42} \quad \frac{3}{-34} \quad \frac{4}{-24} \quad \frac{5}{-12} \quad \dots \quad \frac{x}{1428}$
 $\Rightarrow x = ?$

- A) 34 B) 35 C) 36 D) 37 E) 38

12. $\frac{a_1}{136} \quad \frac{a_2}{138} \quad \frac{a_3}{134} \quad \frac{a_4}{140} \quad \frac{a_5}{132} \quad \dots \quad \frac{a_{53}}{?}$

- A) 84 B) 96 C) 128 D) 146 E) 188

13. $\frac{1}{34} \quad \frac{2}{33} \quad \frac{3}{35} \quad \frac{4}{32} \quad \frac{5}{36} \quad \dots \quad \frac{x}{?}$
 $\Rightarrow x = ?$

- A) 118 B) 119 C) 120 D) 121 E) 122

14. $\frac{a_1}{\frac{1}{8}} \quad \frac{a_2}{\frac{1}{4}} \quad \frac{a_3}{\frac{1}{2}} \quad \frac{a_4}{1} \quad \frac{a_5}{2} \quad \dots \quad \frac{a_{15}}{?}$

- A) 2^{12} B) 2^{11} C) 2^{10} D) 2^9 E) 2^8

15. $\frac{1}{\sqrt{2}} \quad \frac{2}{2} \quad \frac{3}{2\sqrt{2}} \quad \frac{4}{4} \quad \frac{5}{4\sqrt{2}} \quad \dots \quad \frac{x}{64\sqrt{2}}$
 $\Rightarrow x = ?$

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

16. $\frac{a_1}{243} \quad \frac{a_2}{-81} \quad \frac{a_3}{27} \quad \frac{a_4}{-9} \quad \frac{a_5}{3} \quad \dots \quad \frac{a_{26}}{?}$

- A) 3^{-18} B) 3^{-19} C) 3^{-20} D) -3^{-20} E) -3^{-19}

Aşağıdaki sayı dizilerinden hangisinin diğerlerinden farklı bir kuralı vardır.
Which of the following number series have a different rule?

1. A) 4 5 10 11 22
B) 2 3 6 7 14
C) 7 6 12 11 22
D) 0 1 2 3 6
E) 6 7 14 15 30

2. A) 1 3 2 6 5
B) 2 4 7 14 17
C) 3 9 8 24 23
D) 5 10 9 18 17
E) 1 2 5 10 13

3. A) 4 8 7 14 13
B) 3 9 15 45 51
C) $\frac{3}{4}$ 6 2 16 12
D) 1 6 3 18 15
E) 2 8 6 24 22

4. A) 7 8 12 21 37
B) 10 11 15 24 40
C) 1 2 6 15 31
D) 5 6 10 19 35
E) 3 4 8 16 32

5. A) 12 13 15 18 22
B) 15 18 22 27 33
C) 7 9 10 12 13
D) 17 19 22 26 31
E) 9 14 20 27 35

6. A) 6 12 14 18 26
B) 8 16 23 28 38
C) 12 15 21 24 30
D) 7 14 19 29 40
E) 13 17 25 32 37

7. A) 4 5 8 13 20
B) 6 7 9 12 18
C) 9 11 15 21 29
D) 8 9 12 17 24
E) 7 9 13 19 27

8. A) 15 14 7 6 3
B) 43 42 21 20 10
C) 79 78 39 38 19
D) 51 50 25 24 8
E) 59 58 29 28 14

Aşağıda verilen sayı dizilerinin üç tanesi aynı veya benzer kurala göre düzenlemiştir. Hangileri olduğunu bulunuz.

In the following questions, three of the given number series are ordered according to the same similar rule. Find there number series.

9. I. 7 8 16 17 34
II. 6 7 14 16 32
III. 5 6 12 13 26
IV. 8 9 18 17 34
V. 3 4 8 9 18
- A) II, IV, V B) I, II, IV C) I, III, V
D) III, IV, V E) II, III, V

10. I. 1 3 2 6 5
II. 2 6 4 12 10
III. 5 10 11 22 23
IV. 6 12 11 22 21
V. 3 12 9 36 33
- A) I, II, III B) I, III, V C) II, III, V
D) II, IV, V E) II, III, IV

11. I. 3 9 10 100 101
II. 4 16 17 289 290
III. 2 4 6 36 38
IV. 5 25 24 576 575
V. 2 4 5 25 26
- A) I, II, III B) I, II, IV C) I, III, V
D) II, IV, V E) I, II, V

12. I. 17 18 36 9 6
II. 13 14 28 24 8
III. 10 11 22 18 6
IV. 15 16 32 8 11
V. 16 17 34 30 10
- A) II, III, V B) I, II, V C) II, III, IV
D) I, III, V E) II, IV, V

13. I. 7 6 12 11 22
II. 7 6 18 17 51
III. 5 3 12 10 40
IV. 5 2 12 9 54
V. 8 9 18 19 38
- A) I, II, V B) I, III, IV C) II, III, V
D) I, II, IV E) II, III, IV

14. I. 10 8 12 6 14
II. 16 13 18 11 20
III. 17 12 18 11 19
IV. 7 4 8 3 9
V. 14 13 15 12 16
- A) I, II, III B) II, III, IV C) III, IV, V
D) I, II, V E) II, III, V

15. I. 4 12 10 30 28
II. 3 9 7 21 19
III. 9 18 15 30 27
IV. 5 10 7 14 11
V. 8 24 22 66 64
- A) I, II, IV B) I, II, V C) II, III, V
D) II, IV, V E) III, IV, V

16. I. 22 11 9 3 6
II. 36 18 16 4 7
III. 40 20 18 9 12
IV. 54 27 25 5 8
V. 32 16 18 6 9
- A) I, II, IV B) I, II, V C) II, III, V
D) II, IV, V E) III, IV, V

1. I. 7 14 16 32 34
 II. 5 15 18 54 57
 III. 3 12 16 64 68
 IV. ? ? ? ? ?
 A) 3 15 20 100 95
 B) 2 10 15 20 100
 C) 1 5 25 30 150
 D) 2 7 35 40 200
 E) 1 5 10 50 55

2. I. 8 9 11 14 18
 II. 7 9 12 16 21
 III. 4 7 11 16 22
 IV. ? ? ? ? ?
 A) 5 9 14 20 27
 B) 4 8 13 19 25
 C) 1 5 10 16 18
 D) 2 6 10 14 18
 E) 5 9 14 19 26

3. I. 7 10 30 27
 II. 7 11 44 40
 III. 7 12 60 55
 IV. ? ? ? ?
 A) 7 13 74 68
 B) 7 13 78 84
 C) 7 13 78 72
 D) 7 13 76 70
 E) 7 13 76 82

4. I. 4 8 11 22 25
 II. 2 6 8 24 26
 III. 3 12 17 68 73
 IV. ? ? ? ? ?
 A) 3 15 19 76 80
 B) 2 10 14 70 74
 C) 4 20 24 120 116
 D) 2 10 14 70 66
 E) 3 15 19 95 91

5. I. 7 9 13 19 27
 II. 42 34 28 24 22
 III. 3 4 7 12 19
 IV. ? ? ? ? ?
 A) 18 11 6 3 4
 B) 22 15 10 13 12
 C) 39 32 27 30 31
 D) 32 25 20 17 16
 E) 24 17 12 9 10

6. I. 47 44 11 8 2
 II. 43 39 13 9 3
 III. 31 26 13 8 4
 IV. ? ? ? ? ?
 A) 47 45 9 7 2
 B) 62 60 12 10 2
 C) 33 35 7 5 1
 D) 52 50 48 16 14
 E) 27 25 5 7 6

7. I. 5 8 16 19 38
 II. 25 22 11 8 4
 III. 7 9 27 29 87
 IV. ? ? ? ? ?
 A) 35 33 11 9 3
 B) 32 30 10 8 4
 C) 20 18 6 4 2
 D) 12 10 5 2 1
 E) 26 24 8 6 3

8. I. 2 6 9 27 30
 II. 4 20 25 125 130
 III. 1 4 12 15 45
 IV. ? ? ? ? ?
 A) 1 6 30 25 30
 B) 2 7 35 30 150
 C) 2 7 35 40 45
 D) 1 6 30 25 125
 E) 1 6 30 35 175

9. I. 8 16 19 15 3
 II. 9 11 8 2 10
 III. 12 6 18 22 17
 IV. ? ? ? ? ?
 A) 14 12 4 16 11
 B) 17 15 5 20 24
 C) 29 27 9 36 41
 D) 11 9 3 12 15
 E) 20 18 6 20 25

10. I. 7 14 15 30 31
 II. 6 18 19 57 58
 III. 5 20 21 84 85
 IV. ? ? ? ? ?
 A) 4 20 21 105 104
 B) 4 20 21 105 107
 C) 4 20 21 105 106
 D) 4 20 21 100 101
 E) 4 20 19 95 96

11. I. 4 8 7 14 13
 II. 14 7 8 4 5
 III. 5 15 13 39 37
 IV. ? ? ? ? ?
 A) 48 16 18 6 4
 B) 21 7 9 3 2
 C) 42 14 12 4 1
 D) 12 4 6 3 5
 E) 30 10 12 4 6

12. I. 15 5 9 3 7
 II. 36 9 12 3 6
 III. 18 9 14 7 12
 IV. ? ? ? ? ?
 A) 115 23 25 5 3
 B) 40 8 10 2 0
 C) 85 17 15 3 5
 D) 40 8 10 2 4
 E) 110 22 20 4 6

13. I. 4 24 16 96 88
 II. 7 21 17 51 47
 III. 8 32 26 104 98
 IV. ? ? ? ? ?
 A) 5 10 7 14 11
 B) 6 12 9 18 21
 C) 8 16 13 24 21
 D) 7 14 11 22 25
 E) 3 9 7 21 19

14. I. 8 16 20 14
 II. 7 21 26 19
 III. 5 20 26 18
 IV. ? ? ? ?
 A) 4 20 27 36
 B) 6 30 37 28
 C) 3 15 22 20
 D) 2 10 16 7
 E) 5 25 32 16

15. I. 2 4 12 48
 II. 15 17 20 24
 III. 3 9 36 180
 IV. ? ? ? ?
 A) 20 23 27 35
 B) 10 13 17 21
 C) 19 22 26 31
 D) 18 21 27 32
 E) 24 27 30 35

16. I. 7 21 42 252
 II. 5 20 100 2000
 III. 2 16 32 512
 IV. ? ? ? ?
 A) 4 12 36 324
 B) 3 12 24 144
 C) 6 18 36 180
 D) 7 14 42 84
 E) 9 27 81 486

1. I. 3 6 4 8 6 12
 II. 7 5 10 8 16 14
 III. 4 12 9 27 24 72
 IV. ? ? ? ? ? ?
- A) 7 21 18 54 52 156
 B) 5 2 6 3 9 6
 C) 5 15 12 36 33 99
 D) 5 2 6 3 6 18
 E) 7 4 12 10 30 27

2. I. 10 11 12 13 14
 II. 18 16 14 12 10
 III. 15 18 21 24 27
 IV. ? ? ? ? ?
- A) 23 19 15 11 7
 B) 20 15 10 5 0
 C) 20 16 12 10 6
 D) 23 20 17 14 11
 E) 23 27 31 44 51

3. I. 3 5 7 9 11
 II. 3 9 27 81 243
 III. 4 6 8 10 12
 IV. ? ? ? ? ?
- A) 4 3 2 1 0
 B) 4 5 6 7 8
 C) 4 12 36 108 324
 D) 4 12 48 108 324
 E) 4 16 64 256 512

4. I. 7 8 11 16 23
 II. 21 20 17 12 5
 III. 42 43 46 51 58
 IV. ? ? ? ? ?
- A) 126 125 122 117 110
 B) 84 85 90 95 100
 C) 84 85 88 93 100
 D) 126 127 130 135 142
 E) 126 125 120 115 108

5. I. 7 8 24 25 75 76
 II. 6 18 19 57 58 174
 III. 5 7 28 30 120 122
 IV. ? ? ? ? ? ?
- A) 4 8 12 16 20 24
 B) 4 16 64 256 512 1024
 C) 4 6 24 26 104 106
 D) 3 12 10 20 18 72
 E) 4 16 18 72 74 296

6. I. 7 6 12 11 22 21
 II. 8 6 18 16 48 46
 III. 9 6 24 21 84 81
 IV. ? ? ? ? ? ?
- A) 10 5 30 25 125 130
 B) 10 6 30 26 180 176
 C) 10 5 30 26 130 134
 D) 10 6 30 26 130 126
 E) 10 6 30 26 180 126

7. I. 5 12 7 14 9 16
 II. 7 16 9 18 11 20
 III. 9 20 11 22 13 24
 IV. ? ? ? ? ? ?
- A) 11 24 13 26 15 28
 B) 9 24 13 26 15 18
 C) 10 24 13 36 15 28
 D) 11 12 13 26 15 30
 E) 11 24 13 28 15 30

8. I. 3 4 8 11 44 49
 II. 5 6 12 15 60 65
 III. 7 8 16 19 76 81
 IV. ? ? ? ? ? ?
- A) 8 9 18 20 80 85
 B) 9 10 20 23 92 97
 C) 9 10 20 23 82 87
 D) 9 10 15 18 72 87
 E) 10 11 22 25 100 95

9. I. 7 14 18 36 40 80
 II. 2 6 9 27 30 90
 III. 5 5 12 12 19 19
 IV. ? ? ? ? ? ?
 A) 2 4 10 20 26 50
 B) 5 15 14 42 41 123
 C) 1 4 5 20 21 84
 D) 3 6 12 24 30 60
 E) 7 14 8 16 10 20

10. I. 1 5 10 14 28 32
 II. 0 0 2 8 10 40
 III. 9 5 11 7 13 9
 IV. ? ? ? ? ? ?
 A) 8 12 6 10 14 8
 B) 24 20 26 22 28 24
 C) 36 32 38 34 40 36
 D) 24 28 22 26 20 24
 E) 18 22 28 32 38 42

11. I. 11 16 13 18 15 20
 II. 27 22 25 20 23 18
 III. 52 48 24 20 10 6
 IV. ? ? ? ? ? ?
 A) 3 6 7 8 16 17
 B) 168 42 40 10 8 2
 C) 148 37 36 9 8 2
 D) 44 22 20 10 8 4
 E) 132 44 42 14 12 4

12. I. 6 24 12 48 24 96
 II. 32 64 16 32 8 16
 III. 8 4 12 8 24 20
 IV. ? ? ? ? ? ?
 A) 6 9 6 12 9 18
 B) 8 5 20 17 68 64
 C) 8 6 12 10 20 18
 D) 8 4 16 12 48 44
 E) 6 3 12 9 36 33

13. I. 7 14 9 18 13 26
 II. 13 18 9 14 7 12
 III. 6 18 12 36 30 180
 IV. ? ? ? ? ? ?
 A) 13 19 15 90 17 23
 B) 75 81 64 33 11 17
 C) 25 75 81 22 33 17
 D) 75 81 32 38 44 256
 E) 75 81 27 33 11 17

14. I. 3 6 13 26 33 66
 II. 81 74 37 30 15 8
 III. 5 15 23 69 77 231
 IV. ? ? ? ? ? ?
 A) 122 114 36 30 2 8
 B) 120 144 30 28 10 5
 C) 122 114 38 30 10 2
 D) 122 144 38 30 10 2
 E) 120 114 38 30 10 2

15. I. 23 13 39 29 87 77
 II. 500 510 170 180 60 70
 III. 2 7 42 47 282 287
 IV. ? ? ? ? ? ?
 A) 251 246 41 36 6 1
 B) 285 280 40 35 28 22
 C) 287 282 280 70 65 14
 D) 281 276 49 43 9 6
 E) 287 282 47 42 9 5

16. I. 1 1 2 4 5 25
 II. 100 10 9 3 2 $\sqrt{2}$
 III. 2 4 5 25 26 676
 IV. ? ? ? ? ? ?
 A) 625 26 25 5 4 $\sqrt{2}$
 B) 289 17 16 4 3 $\sqrt{3}$
 C) 125 25 5 4 3 1
 D) 900 300 296 13 9 4
 E) 144 12 11 9 3 2



Tests

Questions

1. I. $a \star b = 2a - b + 4$

II. $7 \star 5 = ?$

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

2. I. $a \triangle b = a^2 + 2b - 1$

II. $4 \triangle 7 = ?$

- A) 7 B) 28 C) 29 D) 30 E) 31

3. I. $a \square b = a + b^2$

II. $8 \square 3 = ?$

- A) 17 B) 16 C) 15 D) 14 E) 13

4. I. $a \odot b = a^2 + 2ab$

II. $5 \odot 2 = ?$

- A) 50 B) 45 C) 42 D) 40 E) 35

5. I. $a \nabla b = \frac{b}{2} + \frac{a}{3} + 1$

II. $12 \nabla 16 = ?$

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

6. I. $a \triangleleft b = 2b - a^2 + ab$

II. $3 \triangleleft 6 = ?$

- A) 15 B) 17 C) 18 D) 21 E) 24

7. I. $x \square y = x^2 - y^3$

II. $5 \square 2 = ?$

- A) 14 B) 15 C) 16 D) 17 E) 18

8. I. $x \boxplus y = 2a^2 - 5b + 2$

II. $4 \boxplus 2 = ?$

- A) 25 B) 24 C) 23 D) 22 E) 21

9. I. $a \blacksquare b = \frac{4a-3b}{5}$

II. $7 \blacksquare 6 = ?$

- A) 2 B) 5 C) 8 D) 10 E) 18

10. I. $x \star y = 2(x+y)^2 - 1$

II. $3 \star 4 = ?$

- A) 100 B) 99 C) 98 D) 97 E) 96

11. I. $x \odot y = \frac{1}{x} + \frac{1}{y}$

II. $2 \odot 3 = ?$

- A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{2}{5}$ D) $\frac{1}{6}$ E) $\frac{5}{6}$

12. I. $a \Delta b = \frac{1}{a} - \frac{1}{b}$

II. $\frac{1}{4} \Delta \frac{1}{2} = ?$

- A) 2 B) 3 C) 6 D) $\frac{1}{2}$ E) $\frac{1}{6}$

13. I. $a \Delta b = \frac{a^2+3}{b+1} + a.(b-1)$

II. $5 \Delta 3 = ?$

- A) 15 B) 16 C) 17 D) 18 E) 19

14. I. $a \star b = 3a + b$

II. $5 \star x = 22$

III. $x = ?$

- A) 7 B) 6 C) 5 D) 4 E) 3

15. I. $a \Delta b = (a-2).(b+1)$

II. $a \Delta 7 = 48$

III. $a = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

16. I. $a \square b = a^3 - b^2 + 1$

II. $a \square 8 = 153$

III. $a = ?$

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

1. I. $a \heartsuit b = (a+1).b - a^2$

II. $3 \heartsuit 6 = ?$

- A) 13 B) 14 C) 15 D) 16 E) 17

2. I. $a \otimes b = \frac{b}{a} + 2b + 1$

II. $\frac{1}{2} \otimes 4 = ?$

- A) 16 B) 17 C) 18 D) 19 E) 20

3. I. $a \Delta b = a^b + \frac{b}{a}$

II. $2 \Delta 4 = ?$

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

4. I. $x \boxtimes y = 2xy + x.(y-1)$

II. $3 \boxtimes y = 42$

III. $y = ?$

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

5. I. $a \Delta b = a^b + 3a$

II. $a \Delta 5 = 38$

III. $a = ?$

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

6. I. $2.(a \spadesuit b) = a^2 - b$

II. $6 \spadesuit 4 = ?$

- A) 13 B) 14 C) 15 D) 16 E) 17

7. I. $a \blacktriangle b = a + 3b$

II. $(2 \blacktriangle 4) \blacktriangle 6 = ?$

- A) 28 B) 30 C) 32 D) 34 E) 36

8. I. $x \square y = (x-1).(y+1)$

II. $5 \square (3 \square 2) = ?$

- A) 18 B) 21 C) 24 D) 28 E) 36

9. I. $a \triangle b = 2a - b$
 II. $(7 \triangle 3) \triangle (5 \triangle 9) = ?$
 A) 18 B) 19 C) 20 D) 21 E) 22

10. I. $a \blacksquare b = a^b - 3$
 II. $(2 \blacksquare 4) \blacksquare 2 = ?$
 A) 148 B) 151 C) 156 D) 162 E) 166

11. I. $a \diamond b = 2a + b$
 II. $a \blacklozenge b = a^2 - 2b$
 III. $(2 \diamond 3) \blacklozenge 8 = ?$
 A) 30 B) 32 C) 33 D) 34 E) 35

12. I. $x \boxminus y = x - 2y$
 II. $x \nabla y = 2 \cdot (x + y)$
 III. $(7 \boxminus 3) \nabla 9 = ?$
 A) 10 B) 14 C) 16 D) 20 E) 22

13. I. $a \triangle b = 3a - b^2$
 II. $a \odot b = a \cdot b$
 III. $5 \odot (6 \triangle 4) = ?$
 A) 6 B) 8 C) 10 D) 12 E) 14

14. I. $a \blacksquare b = b^2 + \frac{a}{2}$
 II. $a \odot b = a + 3b$
 III. $(4 \blacksquare 2) \odot 7 = ?$
 A) 24 B) 27 C) 28 D) 30 E) 32

15. I. $a \blacksquare b = \frac{b}{3} + \frac{a}{5}$
 II. $a \square b = 3b + 5a$
 III. $1 \square (20 \blacksquare 15) = ?$
 A) 48 B) 44 C) 40 D) 36 E) 32

16. I. $a \star b = a^2 + 2b$
 II. $a \triangle b = b^2 + 2a$
 III. $6 \star (2 \triangle 5) = ?$
 A) 82 B) 84 C) 86 D) 90 E) 94

1. I. $a \blacktriangle b = \frac{a+b}{3}$
 II. $a \star b = 3(a+b)$
 III. $(8 \blacktriangle 7) \star 2 = ?$
 A) 21 B) 18 C) 15 D) 12 E) 9

2. I. $a \square b = \frac{a-2b}{3}$
 II. $a \circ b = 2a + b^2$
 III. $(13 \square 2) \circ 5 = ?$
 A) 29 B) 30 C) 31 D) 32 E) 33

3. I. $a \triangle b = \frac{a+2b}{5}$
 II. $a \nabla b = \frac{2a-3b}{4}$
 III. $10 \nabla (2 \triangle 9) = ?$
 A) 5 B) 4 C) 3 D) 2 E) 1

4. I. $a \square b = a \cdot b - 2$
 II. $a \star b = a - \frac{b}{2}$
 III. $4 \square (8 \star 6) = ?$
 A) 21 B) 20 C) 18 D) 16 E) 15

5. I. $a \triangle b = a \cdot b + 3$
 II. $a \square b = 2a - 3b$
 III. $(3 \triangle 7) \square 16 = ?$
 A) 0 B) 4 C) 8 D) 12 E) 16

6. I. $a \boxplus b = a^3 - 3b$
 II. $a \odot b = a \cdot (b - 1)$
 III. $4 \odot (3 \boxplus 8) = ?$
 A) 6 B) 8 C) 10 D) 12 E) 14

7. I. $a \star b = a + 2b$
 II. $a \blacktriangle b = a^2 + b^2$
 III. $6 \blacktriangle (3 \star 1) = ?$
 A) 67 B) 65 C) 63 D) 61 E) 59

8. I. $a \clubsuit b = a^b + a \cdot b$
 II. $a \spadesuit b = \frac{a}{b}$
 III. $(5 \clubsuit 2) \spadesuit 7 = ?$
 A) 1 B) 2 C) 3 D) 4 E) 5

9. I. $a \star b = a^2 + 2b$

II. $a \nabla b = a - \frac{b}{3}$

III. $(4 \star 1) \nabla (1 \star 7) = ?$

- A) 9 B) 10 C) 11 D) 12 E) 13

10. I. $a \blacksquare b = a \cdot b - 1$

II. $a \triangle b = \frac{a}{b} + 1$

III. $(8 \triangle 2) \blacksquare (12 \triangle 4) = ?$

- A) 16 B) 17 C) 18 D) 19 E) 20

11. I. $a \star b = 4a - b$

II. $a \sqcup b = a + 3b$

III. $(3 \star 8) \sqcup (6 \sqcup 2) = ?$

- A) 40 B) 36 C) 32 D) 28 E) 24

12. I. $a \star b = a^3 - \frac{b}{2}$

II. $a \square b = 3a + 2b$

III. $(2 \star 12) + (1 \square 2) = ?$

- A) 10 B) 9 C) 8 D) 7 E) 6

13. I. $a \odot b = 2a - b$

II. $a \nabla b = \frac{a+2b}{3}$

III. $(16 \nabla 4) \odot (11 \nabla 2) = ?$

- A) 9 B) 10 C) 11 D) 12 E) 13

14. I. $a \blacksquare b = \frac{b-a}{2}$

II. $a \odot b = a^2 - b^2$

III. $(5 \odot 3) \blacksquare (11 \odot 7) = ?$

- A) 24 B) 27 C) 28 D) 30 E) 32

15. I. $a \odot b = 3a \cdot b + b^2$

II. $a \nabla b = (a-1) \cdot (b+1)$

III. $(3 \nabla 2) \odot (1 \nabla 2) = ?$

- A) 0 B) 6 C) 18 D) 24 E) 36

16. I. $a \heartsuit b = b^a - ab$

II. $a \blacksquare b = 2a - \frac{b}{3}$

III. $7 \blacksquare (2 \heartsuit 5) = ?$

- A) 11 B) 10 C) 9 D) 8 E) 7

1. I. $a \square b = a + 2b$

II. $4 \square 5 = 8 \square x$
 $\Rightarrow x = ?$

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

2. I. $a \otimes b = a^2 + 3b$

II. $5 \otimes 7 = 7 \otimes x$
 $\Rightarrow x = ?$

- A) -2 B) -1 C) 0 D) 1 E) 2

3. I. $a \triangle b = 4a - 3b + 2$

II. $9 \triangle 6 = x \triangle 10$
 $\Rightarrow x = ?$

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

4. I. $a \nabla b = \frac{a^2}{2} + \frac{4b}{3}$

II. $12 \nabla x = 8 \nabla 36$
 $\Rightarrow x = ?$

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

5. I. $a \star b = \begin{cases} a^2 + b, & a < b \\ 3a - b, & a > b \end{cases}$

II. $(2 \star 3) \star 6 = ?$

- A) 11 B) 13 C) 15 D) 17 E) 19

6. I. $a \square b = \begin{cases} a^3 - b^2, & 2a - b > 0 \\ \sqrt{a^2 + b^3}, & 2a - b < 0 \end{cases}$

II. $3 \square 5 = ?$

- A) 2 B) 8 C) 13 D) 18 E) 24

7. I. $a \triangle b = \begin{cases} 2a - b, & a \cdot b < 0 \\ a + b, & a \cdot b > 0 \end{cases}$

II. $(4 \triangle (-1)) \triangle (2) = ?$

- A) 8 B) 11 C) 16 D) 20 E) 24

8. I. $a \star b = \begin{cases} a^2 - b^2, & a > b \\ a^2 + b^2, & a < b \end{cases}$

II. $(4 \star 2) \star 8 = ?$

- A) 40 B) 60 C) 80 D) 100 E) 120

9. I. $a \nabla b = \begin{cases} \frac{a+b}{3}, & a \neq b \\ \frac{a \cdot b + 1}{2}, & a = b \end{cases}$
- II. $17 \nabla (7 \nabla 7) = ?$
- A) 10 B) 11 C) 12 D) 13 E) 14

10. I. $a \star b = \begin{cases} a^2 + 1, & a > b \\ a + b^2, & b > a \end{cases}$
- II. $a \Delta b = 3a - b + 2$
- III. $(3 \Delta 5) \star 2 = ?$
- A) 8 B) 10 C) 24 D) 37 E) 60

11. I. $a \square b = \begin{cases} a + 2b, & a > b \\ a \cdot b, & a = b \\ b + 2a, & a < b \end{cases}$
- II. $(4 \square 2) \square (3 \square 3) = ?$
- A) 15 B) 23 C) 25 D) 34 E) 37

12. I. $a \Delta b = \begin{cases} 2a + 3b, & \frac{a}{b} > 1 \\ 3a - b, & \frac{a}{b} < 1 \end{cases}$
- II. $(5 \Delta 2) \Delta (3 \Delta 4) = ?$
- A) 21 B) 29 C) 38 D) 47 E) 60

13. I. $a \square b = \begin{cases} \frac{a}{b} - 1, & \sqrt{a+b} > 3 \\ \frac{b}{a} + 1, & \sqrt{a+b} < 3 \end{cases}$
- II. $(7 \square 5) + (2 \square 6) = ?$
- A) $\frac{1}{5}$ B) $\frac{11}{5}$ C) $\frac{17}{5}$ D) $\frac{22}{5}$ E) $\frac{27}{5}$

14. I. $a \square b = \begin{cases} b^2 + a, & a^2 - b > 20 \\ b^2 - a, & a^2 - b < 20 \end{cases}$
- II. $4 \square (5 \square 2) = ?$
- A) 77 B) 70 C) 66 D) 58 E) 52

15. I. $a \Delta b = \begin{cases} a^2 + b^2, & a^2 > b \\ (a - b)^2, & a^2 < b \end{cases}$
- II. $(2 \Delta 6) \Delta (3 \Delta 1) = ?$
- A) 256 B) 300 C) 356 D) 400 E) 488

16. I. $a \Delta b = \begin{cases} a - b^2, & a > b \\ a \cdot b, & a = b \\ \frac{b^2}{a}, & a < b \end{cases}$
- II. $((3 \Delta 1) \Delta 2) \Delta 6 = ?$
- A) 6 B) 9 C) 12 D) 18 E) 24

1. I. $a \star b = 2a - b$
 II. $a \square b = a^2 + b$
 III. $a \triangle b = 4a - b^2$
 IV. $(3 \square 1) \star (7 \triangle 5) = ?$
 A) 12 B) 17 C) 25 D) 30 E) 36

2. I. $a \star b = 3a + b$
 II. $a \square b = \frac{1}{a} + b$
 III. $a \triangle b = a - b^2$
 IV. $\left(\frac{1}{3} \square 4\right) \star (13 \triangle 3) = ?$
 A) 4 B) 9 C) 16 D) 25 E) 36

3. I. $a \star b = a \cdot b + 1$
 II. $a \odot b = a^2 - b^2$
 III. $a \square b = a - b$
 IV. $(7 \odot 6) \square (3 \star 5) = ?$
 A) -3 B) -1 C) 1 D) 3 E) 5

4. I. $a \triangle b = \sqrt{a+b}$
 II. $a \star b = \sqrt{a} + \sqrt{b}$
 III. $a \square b = a^2 - b$
 IV. $(9 \star 4) \square (9 \triangle 16) = ?$
 A) 4 B) 9 C) 12 D) 20 E) 25

5. I. $a \star b = \frac{a}{b} + 1$
 II. $a \blacktriangle b = a \cdot b - 2$
 III. $a \square b = \frac{a-b}{2}$
 IV. $(24 \star 2) \blacktriangle (9 \square 5) = ?$
 A) 8 B) 15 C) 24 D) 26 E) 30

6. I. $a \blacksquare b = 2a - b^2$
 II. $a \star b = a \cdot b - 1$
 III. $(5 \blacksquare 3) \star (10 \blacksquare 4) = ?$
 A) 1 B) 2 C) 3 D) 4 E) 5

7. I. $a \nabla b = a \cdot b$
 II. $a \odot b = a^2 - b$
 III. $a \blacksquare b = 2a + 3b$
 IV. $(3 \nabla 2) \odot (1 \blacksquare 5) = ?$
 A) 13 B) 15 C) 18 D) 19 E) 21

8. I. $a \blacksquare = a^2 + 2a$
 II. $a \blacktriangle b = a \cdot b - 4$
 III. $(3 \blacksquare) \blacktriangle 4 = ?$
 A) 60 B) 56 C) 52 D) 48 E) 44

9. I. $a \blacktriangle = 4a - 5$
 II. $a \star b = a^2 \cdot b + 3$
 III. $(2 \blacktriangle) \star 7 = ?$
 A) 66 B) 63 C) 60 D) 57 E) 54

10. I. $a \heartsuit b = a + b$
 II. $a \boxplus b = a + 2b$
 III. $a \triangle b = a \cdot b - 1$
 IV. $(2 \heartsuit 4) \triangle (8 \boxplus 1) = ?$
 A) 63 B) 62 C) 61 D) 60 E) 59

11. I. $(a, b) \blacktriangle (c, d) = (a \cdot c + b \cdot d - c)$
 II. $(4, 2) \blacktriangle (3, 7) = ?$
 A) (17, 12) B) (14, 11) C) (6, 18)
 D) (14, 36) E) (19, 26)

12. I. $(a, b) \blacktriangle (c, d) = (a + c, b - d)$
 II. $(a, b) \blacksquare (c, d) = (a \cdot d, b \cdot c)$
 III. $[(3, 11) \blacktriangle (6, 2)] \blacksquare (6, 4) = ?$
 A) (28, 54) B) (36, 64) C) (28, 66)
 D) (14, 36) E) (36, 54)

13. I. $(a, b) \star (c, d) = (a^c, d^b)$
 II. $(a, b) \blacktriangle (c, d) = (a \cdot b + c \cdot d, a \cdot d + b \cdot c)$
 III. $(4, 3) \blacktriangle [(2, 1) \star (3, 5)] = ?$
 A) (52, 44) B) (36, 8) C) (52, 24)
 D) (24, 16) E) (60, 35)

14. I. $(a, b) \square (c, d) = \left(\frac{d}{a}, \frac{c}{b}\right)$
 II. $(a, b) \triangle (c, d) = (a \cdot c, b \cdot d)$
 III. $[(3, 5) \square (5, 8)] \triangle (12, 6) = ?$
 A) $\left(\frac{25}{3}, 8\right)$ B) $\left(\frac{1}{2}, \frac{5}{9}\right)$ C) $\left(32, \frac{15}{2}\right)$
 D) $\left(\frac{21}{2}, \frac{35}{3}\right)$ E) (32, 6)

15. I. $(a, b) \blacktriangle (c, d) = (a \cdot d - 1, c \cdot a - 3)$
 II. $(a, b) \blacksquare (c, d) = (a^2 - d^2, b^2 + c^2)$
 III. $[(3, 5) \blacktriangle (4, 2)] \blacksquare [(2, 6) \blacktriangle (5, 1)] = ?$
 A) (-16, 60) B) (-24, 82) C) (50, -36)
 D) (-24, -18) E) (-35, -16)

16. I. $(a, b) \star (c, d) = (a + b \cdot c, b + a \cdot d)$
 II. $(a, b) \blacktriangle (c, d) = (a + c - d, b + d - c)$
 III. $[(4, 6) \star (5, 9)] \blacktriangle [(8, 5) \blacktriangle (3, 7)] = ?$
 A) (24, 36) B) (19, 49) C) (29, 47)
 D) (36, 18) E) (9, 65)

1. $2a \otimes 3b = a + b^2$

$\Rightarrow 16 \otimes 12 = ?$

- A) 12 B) 16 C) 24 D) 28 E) 32

2. $7a \blacktriangle \frac{b}{3} = a \cdot b - 1$

$\Rightarrow 14 \blacktriangle 2 = ?$

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

3. $a^2 \star 2b = \frac{a}{2} + b^2$

$\Rightarrow 16 \star 16 = ?$

- A) 66 B) 64 C) 62 D) 60 E) 58

4. $a^2 \otimes b^2 = a + b$

$\Rightarrow 81 \otimes 49 = ?$

- A) 15 B) 16 C) 32 D) 100 E) 130

5. $a^3 \blacktriangle b^2 = a^2 + b^3$

$\Rightarrow 8 \blacktriangle 9 = ?$

- A) 17 B) 19 C) 31 D) 38 E) 45

6. $15a \star 8b = a^2 + b^2$

$\Rightarrow 30 \star 72 = ?$

- A) 11 B) 18 C) 22 D) 48 E) 85

7. $a \boxtimes b^2 = \sqrt{a} \cdot b$

$\Rightarrow 4 \boxtimes 9 = ?$

- A) 13 B) 15 C) 18 D) 19 E) 21

8. $3a \blacktriangle \frac{b}{3} = 2(a + b)$

$\Rightarrow 3 \blacktriangle 2 = ?$

- A) 16 B) 14 C) 12 D) 10 E) 8

9. $\frac{a}{2} \star 3b = \left(\frac{a^2 \cdot b}{2}\right)$

$\Rightarrow 3 \star 12 = ?$

- A) 24 B) 48 C) 72 D) 84 E) 36

10. $11a \odot 13b = \left(\frac{a+b}{2}\right)$

$\Rightarrow 55 \star 39 = ?$

- A) 4 B) 12 C) 38 D) 47 E) 94

11. $\frac{a^2}{2} \blacktriangle \frac{b^3}{3} = 2ab$

$\Rightarrow 18 \blacktriangle 9 = ?$

- A) 9 B) 18 C) 36 D) 48 E) 57

12. $4a \star 5b = a^2 + 3b$

$\Rightarrow 4 \star 25 = ?$

- A) 1 B) 9 C) 16 D) 23 E) 31

13. $2a \odot \frac{b}{4} = \frac{a \cdot b}{a+b}$

$\Rightarrow 24 \odot 1 = ?$

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

14. $16a \blacktriangle 9b = a^2 + b$

$\Rightarrow 64 \blacktriangle 54 = ?$

- A) 8 B) 16 C) 20 D) 22 E) 40

15. $2a^2 \star 3b = 3a + 5b$

$\Rightarrow 18 \star 15 = ?$

- A) 8 B) 15 C) 25 D) 30 E) 34

16. $5a \odot 4b = \frac{a^2}{b}$

$\Rightarrow 25 \odot 20 = ?$

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

1. I. $2a \blacksquare b = a - 3b$

II. $14 \blacksquare 2 = ?$

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

2. I. $a \odot 3b = a^2 - \frac{b}{2}$

II. $\Rightarrow 4 \odot 18 = ?$

- A) 20 B) 18 C) 16 D) 13 E) 10

3. I. $2a \triangle 3b = a^2 - b^2$

II. $20 \triangle 12 = ?$

- A) 84 B) 72 C) 66 D) 54 E) 48

4. I. $\frac{a}{2} \star 2b = b - 4a + 2$

II. $2 \star 36 = ?$

- A) 8 B) 7 C) 6 D) 5 E) 4

5. I. $4a \square 3b = a \cdot b + 2a + b$

II. $16 \square 9 = ?$

- A) 7 B) 12 C) 18 D) 23 E) 30

6. I. $2a \odot 3b = \frac{a+b^2}{2} + a \cdot b - 5$

II. $16 \odot 12 = ?$

- A) 25 B) 32 C) 39 D) 45 E) 60

7. I. $a^2 \sqcup 2b = 2a + b^2$

II. $25 \sqcup 6 = ?$

- A) 16 B) 18 C) 19 D) 21 E) 24

8. I. $2a^2 \blacktriangle b = a \cdot b - 3$

II. $72 \blacktriangle 2 = ?$

- A) 12 B) 9 C) 8 D) 6 E) 4

9. I. $\frac{a}{3} \square 3b = 2b - a$

II. $4 \square 24 = ?$

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

10. I. $a^2 \triangle b^3 = 2ab + 5$

II. $25 \triangle 27 = ?$

- A) 35 B) 33 C) 29 D) 18 E) 15

11. I. $a^3 \star b = b^a$

II. $8 \star 8 = ?$

- A) 16 B) 32 C) 64 D) 128 E) 256

12. I. $2a \blacksquare b = a \cdot b - 1$

II. $a \blacktriangle 3b = a - b$

III. $(8 \blacksquare 7) \blacktriangle 24 = ?$

- A) 3 B) 12 C) 15 D) 19 E) 21

13. I. $a^2 \triangle b = \frac{b}{a} + 3$

II. $a \circ b^3 = 2(a + b)$

III. $49 \triangle (4 \circ 27) = ?$

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

14. I. $3a \otimes 2b^2 = a + 4b$

II. $\frac{a}{2} \nabla 3b = a \cdot b$

III. $4 \nabla (6 \otimes 2) = ?$

- A) 24 B) 20 C) 18 D) 16 E) 12

15. I. $2a \circ b = (a - b)^2$

II. $a \nabla b^2 = a^2 - b$

III. $(6 \nabla 16) \circ 10 = ?$

- A) 144 B) 100 C) 64 D) 36 E) 16

16. I. $\frac{1}{a} \nabla \frac{1}{b} = a + b$

II. $3 \nabla 4 = ?$

- A) 7 B) $\frac{12}{7}$ C) $\frac{7}{12}$ D) $\frac{1}{12}$ E) 12

1. I. $a \diamond b = \frac{1}{a} + \frac{1}{b}$

II. $3 \diamond 6 = ?$

A) $\frac{2}{3}$ B) $\frac{3}{2}$ C) $\frac{1}{6}$ D) $\frac{1}{3}$ E) $\frac{1}{2}$

2. I. $\frac{1}{a} \circ \frac{1}{b} = a \cdot b$

II. $\frac{1}{2} \circ \frac{1}{5} = ?$

A) 6 B) 8 C) 9 D) 10 E) 11

3. I. $\frac{1}{a} \star \frac{1}{b} = a^2 + b^2$

II. $\frac{1}{4} \star \frac{1}{3} = ?$

A) 25 B) 23 C) 18 D) 12 E) 7

4. I. $2a^2 \triangle \frac{b^2}{2} = \frac{a}{3} + \frac{b}{2}$

II. $4a \square \frac{3b}{2} = a + 3b$

III. $(72 \triangle 8) + (24 \square 6) = ?$

A) 28 B) 26 C) 24 D) 22 E) 18

5. I. $3a^2 \diamond 2b^3 = (a+b)^2$

II. $\frac{a^3}{2} \blacksquare \frac{b^2}{3} = (a-b)^2$

III. $(27 \diamond 128) - (32 \blacksquare 3) = ?$

A) 49 B) 48 C) 45 D) 42 E) 40

6. I. $a \blacktriangle b = \frac{3ab}{a+b} - \frac{a+b}{a-b} + 3$

II. $4 \blacktriangle 2 = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

7. I. $4a \blacksquare 5b = \frac{a \cdot b}{2}$

II. $\frac{a}{3} \blacktriangle b^2 = 3b - 2a$

III. $(28 \blacksquare 20) + (2 \blacktriangle 36) = ?$

A) 20 B) 22 C) 24 D) 26 E) 28

8. I. $a \blacksquare 2b = a^2 + b$

II. $3a \star b^2 = a \cdot b$

III. $(5 \blacksquare 4) \star (12 \star 81) = ?$

A) 27 B) 23 C) 45 D) 48 E) 54

9. I. $\frac{1}{a \blacksquare b} = a \cdot b - 5$

II. $4 \blacksquare 3 = ?$

- A) $\frac{1}{5}$ B) $\frac{1}{6}$ C) $\frac{1}{7}$ D) 6 E) 7

10. I. $\frac{a \star b}{5} = a^2 + b^2$

II. $4 \star 2 = ?$

- A) 125 B) 100 C) 25 D) 10 E) 4

11. I. $\frac{2(a \star b)}{3} = \frac{1}{a} + \frac{1}{b}$

II. $2 \star 3 = ?$

- A) $\frac{1}{2}$ B) $\frac{1}{6}$ C) $\frac{2}{5}$ D) $\frac{5}{2}$ E) $\frac{5}{4}$

12. I. $1 + \frac{1}{\frac{a \blacktriangle b}{2}} = a^2 - b^2 + ab + 1$

II. $3 \blacktriangle 2 = ?$

- A) $\frac{2}{11}$ B) $\frac{11}{2}$ C) $\frac{2}{9}$ D) $\frac{9}{2}$ E) $\frac{1}{3}$

13. I. $\frac{2}{3} + \frac{1}{a \blacksquare b} = \frac{a}{b} + 1$

II. $5 \blacksquare 3 = ?$

- A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) $\frac{2}{3}$ D) 2 E) $\frac{5}{3}$

14. I. $\frac{4}{2a \star b^2} = a \cdot b - \frac{2}{5}$

II. $4 \star 9 = ?$

- A) $\frac{1}{5}$ B) $\frac{7}{5}$ C) $\frac{5}{7}$ D) $\frac{4}{5}$ E) $\frac{4}{7}$

15. I. $\frac{1}{a \star b} = a \cdot b - \frac{2}{a \star b} - 3$

II. $4 \star 6 = ?$

- A) $\frac{1}{2}$ B) $\frac{1}{3}$ C) $\frac{1}{4}$ D) $\frac{1}{6}$ E) $\frac{1}{7}$

16. I. $1 + \frac{1}{2 - \frac{1}{3a \blacktriangle 2b}} = \frac{1}{a} + \frac{1}{b}$

II. $6 \blacktriangle 6 = ?$

- A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{1}{6}$ D) $\frac{1}{8}$ E) $\frac{1}{12}$

1. I. $a \star b = (2a \blacksquare b^2) - 8$

II. $a \blacksquare b = 2a - b$

III. $10 \star 4 = ?$

- A) 24 B) 20 C) 18 D) 16 E) 12

2. I. $a \square b = a^2 \blacktriangle \frac{b}{2}$

II. $a \blacktriangle b = a \cdot b$

III. $3 \square 6 = ?$

- A) 30 B) 27 C) 24 D) 18 E) 12

3. I. $a \triangle b = 2(a \square b) - a \cdot b$

II. $a \square b = a^2 + b^2 - 1$

III. $4 \triangle 6 = ?$

- A) 56 B) 67 C) 78 D) 84 E) 96

4. I. $a \odot b = \frac{a \square b}{2}$

II. $a \square b = 2a + 3b - 2$

III. $8 \odot 12 = ?$

- A) 17 B) 25 C) 30 D) 36 E) 41

5. I. $x \triangle y = x^4 - (x \square y) + 3$

II. $x \square y = x \cdot y + y$

III. $2 \triangle 13 = ?$

- A) -20 B) -12 C) 0 D) 8 E) 18

6. I. $2a \triangle 3b = (a \star b) - 4$

II. $a \star b = a \cdot b - 2b + 1$

III. $6 \triangle 15 = ?$

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

7. I. $2a \odot 3b = \left(\frac{a}{2} \blacktriangle 2b \right) + 5$

II. $a \blacktriangle b = 2a + \frac{b}{3}$

III. $12 \odot 9 = ?$

- A) 15 B) 13 C) 9 D) 8 E) 5

8. I. $a \odot b = 2a \nabla 3b$

II. $a \nabla b = \frac{a^2 \cdot b}{2}$

III. $2 \odot 1 = ?$

- A) 12 B) 15 C) 18 D) 20 E) 24

9. I. $a \odot b = \frac{a}{2} \Delta 3b$

II. $a \Delta b = a^2 - b^2$

III. $14 \odot 2 = ?$

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

10. I. $a \star b = b^2 \Delta 2a$

II. $a \Delta b = 2a + 3b$

III. $5 \star 2 = ?$

- A) 38 B) 36 C) 34 D) 32 E) 30

11. I. $a \square b = 3a \star \frac{b^2}{2}$

II. $a \star b = \frac{a \square b}{2} + 2b$

III. $4 \square 4 = ?$

- A) 18 B) 20 C) 22 D) 24 E) 26

12. I. $a \Delta b = 2(a \star b) - 1$

II. $a \star b = \frac{(a \square b)}{3} + 2$

III. $a \square b = 2a + b$

IV. $8 \Delta 5 = ?$

- A) 13 B) 17 C) 19 D) 23 E) 27

13. I. $a \star b = (a \Delta b)^2 - ab + 1$

II. $a \Delta b = \frac{a \nabla b}{2} + 1$

III. $a \nabla b = a - 7b$

IV. $6 \star 2 = ?$

- A) -2 B) -1 C) 3 D) 5 E) 8

14. I. $a \star b = a(a \Delta b) - b$

II. $a \Delta b = a + b(a \blacksquare b)$

III. $a \blacksquare b = a \cdot b - b$

IV. $5 \star 2 = ?$

- A) 78 B) 84 C) 91 D) 98 E) 103

15. I. $a \Delta b = \frac{(a \odot b) + 2b + a}{2} + 1$

II. $a \odot b = (a \blacktriangle b) - 6$

III. $a \blacktriangle b = a^2 + 2b$

IV. $4 \Delta 12 = ?$

- A) 24 B) 28 C) 32 D) 36 E) 40

16. I. $a \star b = \frac{(a \square b)}{4} + a - 2b$

II. $a \square b = \frac{5(a \Delta b)}{3}$

III. $a \Delta b = a + b$

IV. $17 \star 19 = ?$

- A) -6 B) 0 C) 4 D) 12 E) 20

1. I. $a \blacktriangle = a^2 - 1$
 II. $a \oplus = 2a + 3$
 III. $(4 \blacktriangle) \oplus = ?$
 A) 21 B) 24 C) 27 D) 30 E) 33

2. I. $a \blacksquare = 2a - 5$
 II. $a \blacktriangle = 2a^2 + 3$
 III. $(1 \blacksquare) \blacktriangle = ?$
 A) 28 B) 27 C) 24 D) 21 E) 18

3. I. $a \star = a^2 - 1$
 II. $a \nabla = \frac{2b}{3}$
 III. $(9 \nabla) \star = ?$
 A) 48 B) 35 C) 24 D) 15 E) 8

4. I. $a^2 \blacktriangle = (3a - 1)^2 - 4$
 II. $a \blacksquare = a^2 - a - 4$
 III. $(5 \blacksquare) \blacktriangle = ?$
 A) 32 B) 45 C) 77 D) 96 E) 117

5. I. $a \blacktriangle = a \blacksquare + 3a + 1$
 II. $a \blacksquare = a^2 - 30$
 III. $7 \blacktriangle = ?$
 A) 23 B) 29 C) 37 D) 41 E) 55

6. I. $2a \star b = a^2 + 2ab - b$
 II. $16 \star 3 = ?$
 A) 76 B) 88 C) 96 D) 102 E) 109

7. I. $a \nabla b = 3a - 2b + 2$
 II. $a \oplus b = a^2 + b$
 III. $(11 \nabla 5) + (7 \oplus 4) = ?$
 A) 73 B) 76 C) 78 D) 80 E) 82

8. I. $a \Delta b = 2(a \Delta b) - (a \star b) + a \cdot b - 1$
 II. $a \star b = \frac{(a \Delta b)}{2} + 3a + b - 5$
 III. $6 \Delta 2 = ?$
 A) 2 B) 4 C) 6 D) 8 E) 10

9. I. $a \star b = 2a \clubsuit (b - 4)$

II. $a \clubsuit b = \sqrt{4a - b}$

III. $5 \star 8 = ?$

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

10. I. $a \blacktriangle = 3a - 1$

II. $b \clubsuit = 2a + 3$

III. $((2 \blacktriangle) \clubsuit) \blacktriangle = ?$

- A) 75 B) 76 C) 77 D) 78 E) 79

11. I. $(a, b) \clubsuit (c, d) = (a^b - c, c^a - d)$

II. $(a, b) \star (c, d) = (a - 2d, c - 2b + 6)$

III. $[(2, 5) \clubsuit (3, 4)] \star (7, 9) = ?$

- A) (13, 3) B) (11, 3) C) (13, 5)
D) (11, 5) E) (12, 6)

12. I. $2a \star \frac{b}{8} = \left(\frac{a}{3} \clubsuit 2b\right) + a + b$

II. $3a \clubsuit b^2 = a + b$

III. $36 \star 4 = ?$

- A) 52 B) 56 C) 60 D) 64 E) 80

13. I. $a \clubsuit b = a^2 + b$

II. $a \blacksquare b = a + b^2$

III. $a \blacktriangle b = a \cdot b$

IV. $[(4 \clubsuit 3) \blacksquare 2] \blacktriangle 5 = ?$

- A) 100 B) 105 C) 110 D) 115 E) 120

14. I. $a^b \star = \frac{b^2 - 4a}{2a - b}$

II. $4^7 \star = ?$

- A) 37 B) 36 C) 35 D) 34 E) 33

15. I. $\left(a \times \frac{b}{y}\right) \clubsuit = a^2 + b + \frac{x}{2} + 4y$

II. $\left(4^3 \frac{8}{7}\right) \clubsuit = ?$

- A) 43 B) 42 C) 41 D) 40 E) 39

16. I. $\begin{array}{|c|c|c|} \hline & b & \\ \hline a & \times & c \\ \hline & d & \\ \hline \end{array} = \frac{a^d - 4b}{c}$

II. $\begin{array}{|c|c|c|} \hline & 3 & \\ \hline 2 & \times & 4 \\ \hline & 5 & \\ \hline \end{array} = ?$

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

1. I. $4 \oplus 8 = 6$
II. $2 \oplus 14 = 8$
III. $9 \oplus 13 = 11$
IV. $12 \oplus 4 = ?$
A) 5 B) 6 C) 7 D) 8 E) 9

2. I. $8 \blacktriangle 11 = 38$
II. $5 \blacktriangle 13 = 36$
III. $14 \blacktriangle 7 = 42$
IV. $10 \blacktriangle 12 = ?$
A) 28 B) 32 C) 36 D) 40 E) 44

3. I. $21 \otimes 16 = 10$
II. $35 \otimes 24 = 22$
III. $63 \otimes 37 = 52$
IV. $47 \otimes 41 = ?$
A) 12 B) 18 C) 24 D) 30 E) 36

4. I. $4 \triangle 1 = 15$
II. $2 \triangle 5 = 21$
III. $6 \triangle 5 = 33$
IV. $1 \triangle 7 = ?$
A) 28 B) 24 C) 20 D) 18 E) 15

5. I. $7 \square 5 = 15$
II. $2 \square 5 = 10$
III. $4 \square 1 = 8$
IV. $5 \square 6 = ?$
A) 12 B) 13 C) 14 D) 15 E) 16

6. I. $29 \odot 17 = 4$
II. $30 \odot 6 = 8$
III. $15 \odot 3 = 4$
IV. $28 \odot 7 = ?$
A) 5 B) 6 C) 7 D) 8 E) 10

7. I. $3 \triangle 9 = 24$
II. $4 \triangle 3 = 14$
III. $11 \triangle 5 = 32$
IV. $2 \triangle 8 = ?$
A) 14 B) 16 C) 19 D) 20 E) 25

8. I. $16 \star 5 = 19$
II. $14 \star 2 = 14$
III. $5 \star 8 = 11$
IV. $12 \star 11 = ?$
A) 18 B) 19 C) 20 D) 21 E) 22

9. I. $13 \boxtimes 37 = 10$

II. $21 \boxtimes 69 = 18$

III. $9 \boxtimes 11 = 4$

IV. $19 \boxtimes 16 = ?$

A) 5 B) 7 C) 13 D) 14 E) 16

10. I. $34 \square 20 = 12$

II. $16 \square 9 = 5$

III. $26 \square 11 = 13$

IV. $7 \square 4 = ?$

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

11. I. $17 \otimes 11 = 14$

II. $8 \otimes 28 = 18$

III. $4 \otimes 10 = 7$

IV. $22 \otimes 24 = ?$

A) 12 B) 15 C) 19 D) 21 E) 23

12. I. $9 \star 2 = 9$

II. $13 \star 5 = 10$

III. $17 \star 11 = 8$

IV. $8 \star 3 = ?$

A) 7 B) 9 C) 13 D) 14 E) 16

13. I. $7 \heartsuit 5 = 4$

II. $9 \heartsuit 12 = 9$

III. $14 \heartsuit 9 = 25$

IV. $11 \heartsuit 18 = ?$

A) 14 B) 24 C) 29 D) 36 E) 49

14. I. $3 \diamond 4 = 81$

II. $2 \diamond 6 = 64$

III. $4 \diamond 3 = 64$

IV. $5 \diamond 2 = ?$

A) 25 B) 30 C) 36 D) 41 E) 64

15. I. $3 \triangle 1 = 16$

II. $5 \triangle 6 = 121$

III. $4 \triangle 5 = 81$

IV. $7 \triangle 6 = ?$

A) 49 B) 64 C) 100 D) 144 E) 169

16. I. $13 \star 1 = 144$

II. $23 \star 17 = 36$

III. $5 \star 13 = 64$

IV. $2 \star 9 = ?$

A) 49 B) 64 C) 100 D) 121 E) 144

1. I. $8 \boxminus 10 = 9$
II. $4 \boxminus 12 = 8$
III. $5 \triangle 9 = 7$
IV. $3 \boxminus 15 = ?$
A) 7 B) 8 C) 9 D) 10 E) 11

2. I. $15 \square 7 = 4$
II. $10 \square 2 = 4$
III. $17 \square 3 = 7$
IV. $12 \square 8 = ?$
A) 2 B) 3 C) 4 D) 5 E) 6

3. I. $13 \otimes 2 = 5$
II. $7 \otimes 5 = 4$
III. $11 \otimes 13 = 8$
IV. $10 \otimes 8 = ?$
A) 5 B) 6 C) 7 D) 8 E) 9

4. I. $4 \star 1 = 9$
II. $7 \star 2 = 16$
III. $3 \star 4 = 10$
IV. $5 \star 3 = ?$
A) 9 B) 11 C) 13 D) 15 E) 17

5. I. $7 \heartsuit 1 = 5$
II. $13 \heartsuit 5 = 3$
III. $11 \heartsuit 5 = 1$
IV. $18 \heartsuit 4 = ?$
A) 7 B) 8 C) 9 D) 10 E) 11

6. I. $16 \diamond 4 = 4$
II. $17 \diamond 2 = 5$
III. $10 \diamond 1 = 3$
IV. $14 \diamond 5 = ?$
A) 6 B) 5 C) 4 D) 3 E) 2

7. I. $4 \triangle 6 = 2$
II. $10 \triangle 8 = 12$
III. $6 \triangle 7 = 5$
IV. $13 \triangle 9 = ?$
A) 17 B) 16 C) 14 D) 12 E) 11

8. I. $4 \star 3 = 15$
II. $2 \star 3 = 9$
III. $5 \star 1 = 16$
IV. $3 \star 4 = ?$
A) 11 B) 12 C) 13 D) 15 E) 17

9. I. $7 \triangle 3 = 13$

II. $4 \triangle 5 = 14$

III. $3 \triangle 6 = 15$

IV. $6 \triangle 8 = ?$

A) 24 B) 22 C) 20 D) 18 E) 16

10. I. $6 \square 2 = 12$

II. $4 \square 5 = 19$

III. $8 \square 3 = 17$

IV. $7 \square 4 = ?$

A) 21 B) 16 C) 20 D) 18 E) 19

11. I. $13 \otimes 5 = 4$

II. $18 \otimes 4 = 7$

III. $7 \otimes 1 = 3$

IV. $11 \otimes 3 = ?$

A) 5 B) 8 C) 4 D) 6 E) 3

12. I. $7 \star 4 = 10$

II. $5 \star 1 = 9$

III. $11 \star 8 = 14$

IV. $8 \star 5 = ?$

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

13. I. $4 \heartsuit 7 = 5$

II. $3 \heartsuit 2 = 7$

III. $6 \heartsuit 5 = 13$

IV. $7 \heartsuit 12 = ?$

A) 12 B) 8 C) 7 D) 11 E) 9

14. I. $7 \diamond 5 = 6$

II. $3 \diamond 11 = 7$

III. $9 \diamond 17 = 13$

IV. $10 \diamond 6 = ?$

A) 8 B) 7 C) 9 D) 10 E) 6

15. I. $2 \triangle 10 = 4$

II. $5 \triangle 4 = 3$

III. $11 \triangle 7 = 6$

IV. $9 \triangle 12 = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

16. I. $8 \star 5 = 21$

II. $3 \star 4 = 10$

III. $6 \star 1 = 13$

IV. $7 \star 2 = ?$

A) 13 B) 14 C) 15 D) 16 E) 17

1. I. $3 \star 2 = 7$
II. $4 \star 7 = 9$
III. $5 \star 3 = 22$
IV. $6 \star 4 = ?$
A) 10 B) 24 C) 30 D) 32 E) 36

2. I. $1 \blacktriangle 5 = 11$
II. $4 \blacktriangle 6 = 16$
III. $8 \blacktriangle 2 = 12$
IV. $9 \blacktriangle 3 = ?$
A) 6 B) 9 C) 12 D) 15 E) 18

3. I. $4 \otimes 8 = 6$
II. $3 \otimes 15 = 9$
III. $1 \otimes 7 = 4$
IV. $12 \otimes 10 = ?$
A) 13 B) 12 C) 11 D) 10 E) 9

4. I. $7 \star 4 = 9$
II. $9 \star 2 = 49$
III. $6 \star 1 = 25$
IV. $5 \star 3 = ?$
A) 4 B) 8 C) 9 D) 16 E) 25

5. I. $2 \heartsuit 1 = 3$
II. $5 \heartsuit 3 = 16$
III. $7 \heartsuit 6 = 13$
IV. $8 \heartsuit 5 = ?$
A) 13 B) 26 C) 38 D) 39 E) 40

6. I. $7 \blacklozenge 4 = 10$
II. $8 \blacklozenge 1 = 15$
III. $9 \blacklozenge 6 = 12$
IV. $12 \blacklozenge 5 = ?$
A) 15 B) 16 C) 17 D) 18 E) 19

7. I. $12 \triangle 2 = 6$
II. $17 \triangle 5 = 2$
III. $21 \triangle 4 = 9$
IV. $18 \triangle 3 = ?$
A) 6 B) 7 C) 8 D) 9 E) 10

8. I. $1 \star 5 = 26$
II. $4 \star 2 = 20$
III. $9 \star 3 = 90$
IV. $8 \star 6 = ?$
A) 60 B) 70 C) 80 D) 90 E) 100

9. I. $3 \triangle 8 = 7$
 II. $5 \triangle 10 = 10$
 III. $2 \triangle 6 = 5$
 IV. $4 \triangle 10 = ?$

A) 7 B) 8 C) 9 D) 10 E) 11

10. I. $5 \square 4 = 3$
 II. $9 \square 10 = 4$
 III. $7 \square 6 = 4$
 IV. $10 \square 8 = ?$

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

11. I. $12 \otimes 7 = 13$
 II. $10 \otimes 3 = 8$
 III. $16 \otimes 6 = 14$
 IV. $8 \otimes 7 = ?$

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

12. I. $22 \star 7 = 4$
 II. $30 \star 9 = 6$
 III. $18 \star 2 = 7$
 IV. $14 \star 5 = ?$

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

13. I. $8 \heartsuit 12 = 8$
 II. $6 \heartsuit 9 = 6$
 III. $10 \heartsuit 3 = 6$
 IV. $4 \heartsuit 15 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

14. I. $1 \spadesuit 1 = 0$
 II. $4 \spadesuit 12 = 52$
 III. $2 \spadesuit 5 = 3$
 IV. $3 \spadesuit 7 = ?$

A) 17 B) 18 C) 19 D) 20 E) 21

15. I. $4 \triangle 1 = 4$
 II. $7 \triangle 2 = 49$
 III. $2 \triangle 3 = 8$
 IV. $4 \triangle 2 = ?$

A) 16 B) 12 C) 8 D) 4 E) 2

16. I. $1 \star 5 = 18$
 II. $2 \star 3 = 15$
 III. $4 \star 7 = 33$
 IV. $5 \star 8 = ?$

A) 27 B) 30 C) 33 D) 36 E) 39

1. I. $\star 10 \rightarrow 1$
II. $\star 13 \rightarrow 2$
III. $\star 79 = 4$
IV. $\star 45 \rightarrow ?$

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

2. I. $\blacktriangle 17 \rightarrow 50$
II. $\blacktriangle 25 \rightarrow 29$
III. $\blacktriangle 34 \rightarrow 25$
IV. $\blacktriangle 26 \rightarrow ?$

A) 36 B) 38 C) 40 D) 42 E) 44

3. I. $\otimes 48 \rightarrow 6$
II. $\otimes 35 \rightarrow 4$
III. $\otimes 28 \rightarrow 5$
IV. $\otimes 68 \rightarrow ?$

A) 11 B) 10 C) 9 D) 8 E) 7

4. I. $\star 96 \rightarrow 9$
II. $\star 40 \rightarrow 16$
III. $\star 72 \rightarrow 25$
IV. $\star 53 \rightarrow ?$

A) 1 B) 4 C) 8 D) 15 E) 25

5. I. $\heartsuit 14 \rightarrow 5$
II. $\heartsuit 23 \rightarrow 7$
III. $\heartsuit 44 \rightarrow 20$
IV. $\heartsuit 38 \rightarrow ?$

A) 17 B) 18 C) 19 D) 20 E) 21

6. I. $\blacklozenge 73 \rightarrow 16$
II. $\blacklozenge 45 \rightarrow 29$
III. $\blacklozenge 26 \rightarrow 38$
IV. $\blacklozenge 19 \rightarrow ?$

A) 57 B) 65 C) 70 D) 82 E) 89

7. I. $\triangle 74 \rightarrow 10$
II. $\triangle 21 \rightarrow 3$
III. $\triangle 54 \rightarrow 6$
IV. $\triangle 43 \rightarrow ?$

A) 1 B) 3 C) 5 D) 7 E) 9

8. I. $\star 42 \rightarrow 9$
II. $\star 73 \rightarrow 24$
III. $\star 85 \rightarrow 42$
IV. $\star 57 \rightarrow ?$

A) 32 B) 30 C) 28 D) 26 E) 24

9. I. $\triangle 74 \rightarrow 6$
 II. $\triangle 53 \rightarrow 4$
 III. $\triangle 82 \rightarrow 12$
 IV. $\triangle 91 \rightarrow ?$

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

10. I. $\diamond 42 \rightarrow 12$
 II. $\diamond 54 \rightarrow 9$
 III. $\diamond 76 \rightarrow 13$
 IV. $\diamond 95 \rightarrow ?$

A) 14 B) 45 C) 48 D) 52 E) 56

11. I. $\square 42 \rightarrow 4$
 II. $\square 51 \rightarrow 16$
 III. $\square 83 \rightarrow 25$
 IV. $\square 92 \rightarrow ?$

A) 25 B) 36 C) 49 D) 64 E) 81

12. I. $\odot 16 \rightarrow 12$
 II. $\odot 28 \rightarrow 32$
 III. $\odot 43 \rightarrow 24$
 IV. $\odot 35 \rightarrow ?$

A) 36 B) 30 C) 24 D) 15 E) 8

13. I. $\blacktriangle 45 \rightarrow 20$
 II. $\blacktriangle 29 \rightarrow 18$
 III. $\blacktriangle 34 \rightarrow 12$
 IV. $\blacktriangle 47 \rightarrow ?$

A) 11 B) 16 C) 28 D) 35 E) 40

14. I. $\nabla 1 \rightarrow 2$
 II. $\nabla 2 \rightarrow 10$
 III. $\nabla 3 \rightarrow 30$
 IV. $\nabla 4 \rightarrow ?$

A) 68 B) 64 C) 56 D) 40 E) 32

15. I. $\blacksquare 2 \rightarrow 3$
 II. $\blacksquare 3 \rightarrow 8$
 III. $\blacksquare 5 \rightarrow 24$
 IV. $\blacksquare 7 \rightarrow ?$

A) 50 B) 48 C) 42 D) 35 E) 28

16. I. $\blacktriangle 17 \rightarrow 7$
 II. $\blacktriangle 33 \rightarrow 27$
 III. $\blacktriangle 43 \rightarrow 48$
 IV. $\blacktriangle 25 \rightarrow ?$

A) 7 B) 10 C) 15 D) 20 E) 28

1. I. $\star 5 = 20$

II. $\star 7 = 42$

III. $\star 9 = 72$

IV. $\star 6 = ?$

A) 18 B) 24 C) 30 D) 36 E) 42

2. I. $\blacktriangle 6 = 70$

II. $\blacktriangle 4 = 30$

III. $\blacktriangle 7 = 96$

IV. $\blacktriangle 5 = ?$

A) 50 B) 48 C) 46 D) 44 E) 42

3. I. $\otimes 8 = 61$

II. $\otimes 6 = 33$

III. $\otimes 9 = 78$

IV. $\otimes 7 = ?$

A) 42 B) 43 C) 44 D) 45 E) 46

4. I. $\star 10 = 110$

II. $\star 9 = 90$

III. $\star 12 = 156$

IV. $\star 8 = ?$

A) 48 B) 56 C) 64 D) 72 E) 80

5. I. $\heartsuit 15 = 6$

II. $\heartsuit 23 = 5$

III. $\heartsuit 47 = 11$

IV. $\heartsuit 52 = ?$

A) 3 B) 5 C) 7 D) 9 E) 13

6. I. $\blacklozenge 74 = 3$

II. $\blacklozenge 81 = 7$

III. $\blacklozenge 40 = 4$

IV. $\blacklozenge 61 = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

7. I. $\triangle 43 = 12$

II. $\triangle 37 = 21$

III. $\triangle 28 = 16$

IV. $\triangle 39 = ?$

A) 23 B) 24 C) 25 D) 26 E) 27

8. I. $\star 25 = 32$

II. $\star 41 = 4$

III. $\star 32 = 9$

IV. $\star 23 = ?$

A) 8 B) 9 C) 16 D) 25 E) 27

9. I. $\triangle 17 = 4$

II. $\triangle 28 = 5$

III. $\triangle 13 = 2$

IV. $\triangle 68 = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

10. I. $\diamond 14 = 10$

II. $\diamond 25 = 14$

III. $\diamond 48 = 24$

IV. $\diamond 37 = ?$

A) 22 B) 20 C) 18 D) 16 E) 14

11. I. $\square 41 = 25$

II. $\square 13 = 16$

III. $\square 24 = 36$

IV. $\square 82 = ?$

A) 64 B) 81 C) 100 D) 121 E) 144

12. I. $\odot 81 = 49$

II. $\odot 62 = 16$

III. $\odot 93 = 36$

IV. $\odot 35 = ?$

A) 36 B) 25 C) 16 D) 9 E) 4

13. I. $\blacktriangle 24 = 10$

II. $\blacktriangle 43 = 14$

III. $\blacktriangle 38 = 26$

IV. $\blacktriangle 45 = ?$

A) 22 B) 20 C) 18 D) 16 E) 14

14. I. $\nabla 47 = 12$

II. $\nabla 36 = 10$

III. $\nabla 75 = 13$

IV. $\nabla 89 = ?$

A) 16 B) 17 C) 18 D) 19 E) 20

15. I. $\blacksquare 17 = 35$

II. $\blacksquare 32 = 65$

III. $\blacksquare 28 = 57$

IV. $\blacksquare 41 = ?$

A) 80 B) 81 C) 82 D) 83 E) 84

16. I. $\blacktriangle 12 = 23$

II. $\blacktriangle 25 = 49$

III. $\blacktriangle 34 = 77$

IV. $\blacktriangle 46 = ?$

A) 87 B) 88 C) 89 D) 90 E) 91

1. I. $\star 7 = 20$
 II. $\star 10 = 29$
 III. $\star 24 = 71$
 IV. $\star 17 = ?$
 A) 0 B) 18 C) 31 D) 35 E) 50

2. I. $\blacktriangle 211 = 64$
 II. $\blacktriangle 12 = 27$
 III. $\blacktriangle 32 = 125$
 IV. $\blacktriangle 101 = ?$
 A) 1 B) 8 C) 64 D) 144 E) 216

3. I. $\otimes 412 = 42$
 II. $\otimes 723 = 146$
 III. $\otimes 324 = 68$
 IV. $\otimes 823 = ?$
 A) 16 B) 48 C) 94 D) 165 E) 166

4. I. $\star 7 = 64$
 II. $\star 10 = 121$
 III. $\star 3 = 16$
 IV. $\star 5 = ?$
 A) 9 B) 16 C) 25 D) 36 E) 49

5. I. $\heartsuit 714 = 85$
 II. $\heartsuit 904 = 94$
 III. $\heartsuit 113 = 24$
 IV. $\heartsuit 327 = ?$
 A) 39 B) 47 C) 49 D) 59 E) 65

6. I. $\blacklozenge 418 = 529$
 II. $\blacklozenge 213 = 324$
 III. $\blacklozenge 544 = 655$
 IV. $\blacklozenge 746 = ?$
 A) 635 B) 748 C) 757 D) 847 E) 857

7. I. $\triangle 436 = 8$
 II. $\triangle 355 = 3$
 III. $\triangle 924 = 18$
 IV. $\triangle 839 = ?$
 A) 8 B) 11 C) 19 D) 24 E) 37

8. I. $\star 725 = 614$ $\blacktriangledown 24 = 8$
 II. $\star 796 = 685$ $\blacktriangledown 36 = 18$
 III. $\blacktriangledown \star 345 = \blacktriangledown 234 = 24$
 IV. $\Rightarrow \blacktriangledown \star 713 = ?$
 A) 0 B) 11 C) 14 D) 20 E) 21

9. I. $\triangle 49 = 7$
 II. $\triangle 35 = 4$
 III. $\triangle 71 = 48$
 IV. $\triangle 98 = ?$
 A) 32 B) 46 C) 53 D) 64 E) 73

10. I. $\diamond 43 = 7$
 II. $\diamond 73 = 40$
 III. $\diamond 86 = 28$
 IV. $\diamond 94 = ?$
 A) 35 B) 47 C) 54 D) 65 E) 81

11. I. $\square 92 = 49$
 II. $\square 83 = 25$
 III. $\square 54 = 1$
 IV. $\square 71 = ?$
 A) 9 B) 16 C) 25 D) 36 E) 49

12. I. $\odot 494 = 72$
 II. $\odot 819 = 93$
 III. $\odot 964 = 38$
 IV. $\odot 181 = ?$
 A) 9 B) 19 C) 45 D) 91 E) 121

13. I. $(3 \odot 4) \blacksquare 5 = 35$
 II. $(3 \blacksquare 7) \odot 4 = 25$
 III. $(10 \odot 3) \odot 9 = 22$
 IV. $(4 \odot 5) \blacksquare 6 = ?$
 A) 19 B) 37 C) 45 D) 54 E) 63

14. I. $(13 \odot 4) \blacksquare (2 \star 3) = 45$
 II. $(7 \blacksquare 4) \star (7 \odot 3) = 32$
 III. $(3 \star 5) \blacksquare (17 \odot 5) = 96$
 IV. $(20 \odot 4) \star (3 \blacksquare 5) = ?$
 A) 17 B) 31 C) 47 D) 63 E) 71

15. I. $\blacksquare 234 = 9$ $324 \blacktriangle = 24$
 II. $\blacksquare 561 = 12$ $523 \blacktriangle = 30$
 III. $\blacksquare 743 \blacktriangle = \blacksquare 84 = 12$
 IV. $\Rightarrow \blacksquare 943 \blacktriangle = ?$
 A) 9 B) 12 C) 84 D) 130 E) 957

16. I. $\odot 351 = 135$ $\blacksquare 847 = 487$
 II. $\odot 417 = 741$ $\blacksquare 754 = 574$
 III. $\odot (\blacksquare 974) = \odot 794 = 479$
 IV. $\Rightarrow \blacksquare (\odot 591) = ?$
 A) 159 B) 195 C) 519 D) 915 E) 951

1. I. ♣ 7264 = 10

II. ♣ 9651 = 12

III. ♣ 8184 = 28

IV. ♣ 7393 = ?

A) 12 B) 24 C) 36 D) 48 E) 60

2. I. ♦ 9546 = 21

II. ♦ 8317 = 17

III. ♦ 3926 = 15

IV. ♦ 6534 = ?

A) 18 B) 20 C) 22 D) 24 E) 26

3. I. ☆ 2314 = 10

II. ☆ 4253 = 23

III. ☆ 6238 = 36

IV. ☆ 3547 = ?

A) 18 B) 29 C) 36 D) 43 E) 47

4. I. ⊙ 3527 = 17

II. ⊙ 5846 = 23

III. ⊙ 7195 = 22

IV. ⊙ 4425 = ?

A) 12 B) 15 C) 18 D) 24 E) 27

5. I. † 7821 = 0

II. † 9674 = 6

III. † 8163 = 10

IV. † 5394 = ?

A) 4 B) 5 C) 6 D) 7 E) 8

6. I. ■ 2117 = 14

II. ■ 3241 = 24

III. ■ 2426 = 96

IV. ■ 3164 = ?

A) 60 B) 72 C) 86 D) 94 E) 120

7. I. ▲ 2635 = 61

II. ▲ 4127 = 68

III. ▲ 6719 = 86

IV. ▲ 5241 = ?

A) 73 B) 81 C) 86 D) 93 E) 98

8. I. ⊗ 2345 = 26

II. ⊗ 4638 = 48

III. ⊗ 7362 = 33

IV. ⊗ 5249 = ?

A) 29 B) 35 C) 46 D) 54 E) 62

9. I. $\triangle 2334 = 237$
 II. $\triangle 1487 = 155$
 III. $\triangle 3294 = 333$
 IV. $\triangle 6179 = ?$

A) 623 B) 624 C) 625 D) 626 E) 627

10. I. $\diamond 157 = 12$
 II. $\diamond 247 = 15$
 III. $\diamond 465 = 29$
 IV. $\diamond 928 = ?$

A) 16 B) 22 C) 26 D) 32 E) 38

11. I. $\triangle 623 = 16$
 II. $\triangle 475 = 13$
 III. $\triangle 668 = 42$
 IV. $\triangle 316 = ?$

A) 15 B) 17 C) 19 D) 21 E) 23

12. I. $\odot 462 = 108$
 II. $\odot 781 = 159$
 III. $\odot 249 = 613$
 IV. $\odot 413 = ?$

A) 54 B) 216 C) 138 D) 427 E) 86

13. I. $\star 628 = 46$
 II. $\star 476 = 17$
 III. $\star 574 = 13$
 IV. $\star 715 = ?$

A) 25 B) 28 C) 34 D) 38 E) 42

14. I. $\clubsuit 238 = 14$
 II. $\clubsuit 381 = 25$
 III. $\clubsuit 476 = 34$
 IV. $\clubsuit 537 = ?$

A) 22 B) 26 C) 34 D) 37 E) 42

15. I. $\blacksquare 49 = 7$ $\circ 37 = 21$
 II. $\blacksquare 251 = 51$ $\circ 234 = 612$
 III. $\blacksquare (\circ 449) = \blacksquare 1636 = 46$
 IV. $\Rightarrow \blacksquare (\circ 822) = ?$

A) 27 B) 42 C) 44 D) 82 E) 84

16. I. $(9 \star 3) \odot 7 = 10$
 II. $(17 \odot 4) \star 3 = 7$
 III. $(81 \star 3) \star 9 = 3$
 IV. $\Rightarrow \frac{52 \star 13}{2 \odot 2} = ?$

A) 1 B) 2 C) 4 D) 9 E) 16

1. I. $24 \star 32 = 74$
II. $29 \star 56 = 148$
III. $35 \star 41 = 94$
IV. $37 \star 62 = ?$
A) 93 B) 109 C) 116 D) 127 E) 135

2. I. $34 \blacktriangle 29 = 9$
II. $76 \blacktriangle 43 = 2$
III. $68 \blacktriangle 17 = 4$
IV. $56 \blacktriangle 94 = ?$
A) 4 B) 5 C) 6 D) 7 E) 8

3. I. $12 \otimes 7 = 22$
II. $9 \otimes 9 = 9$
III. $14 \otimes 15 = 12$
IV. $9 \otimes 6 = ?$
A) 12 B) 15 C) 20 D) 22 E) 26

4. I. $4 \star 12 = 28$
II. $7 \star 35 = 84$
III. $11 \star 13 = 134$
IV. $6 \star 22 = ?$
A) 34 B) 38 C) 46 D) 58 E) 66

5. I. $4 \heartsuit 5 = 2$
II. $6 \heartsuit 7 = 6$
III. $8 \heartsuit 7 = 11$
IV. $6 \heartsuit 9 = ?$
A) 7 B) 8 C) 9 D) 10 E) 11

6. I. $10 \diamond 5 = 20$
II. $12 \diamond 6 = 24$
III. $10 \diamond 7 = 24$
IV. $8 \diamond 9 = ?$
A) 24 B) 26 C) 28 D) 30 E) 32

7. I. $4 \triangle 5 = 21$
II. $3 \triangle 6 = 15$
III. $6 \triangle 1 = 37$
IV. $5 \triangle 4 = ?$
A) 29 B) 33 C) 38 D) 45 E) 48

8. I. $28 \star 16 = 17$
II. $34 \star 17 = 15$
III. $34 \star 26 = 15$
IV. $15 \star 48 = ?$
A) 24 B) 18 C) 36 D) 26 E) 42

9. I. $6 \star 9 = 21$
 II. $7 \star 5 = 19$
 III. $12 \star 6 = 30$
 IV. $11 \star 7 = ?$
 A) 21 B) 24 C) 27 D) 29 E) 31

10. I. $7 \blacktriangle 1 = 8$
 II. $3 \blacktriangle 4 = 13$
 III. $6 \blacktriangle 2 = 13$
 IV. $5 \blacktriangle 8 = ?$
 A) 18 B) 24 C) 29 D) 37 E) 41

11. I. $12 \otimes 5 = 27$
 II. $24 \otimes 10 = 54$
 III. $17 \otimes 8 = 41$
 IV. $16 \otimes 12 = ?$
 A) 34 B) 42 C) 52 D) 60 E) 68

12. I. $38 \star 9 = 15$
 II. $67 \star 12 = 30$
 III. $49 \star 18 = 18$
 IV. $78 \star 23 = ?$
 A) 37 B) 33 C) 28 D) 24 E) 16

13. I. $16 \heartsuit 49 = 28$
 II. $64 \heartsuit 25 = 40$
 III. $36 \heartsuit 81 = 54$
 IV. $64 \heartsuit 100 = ?$
 A) 48 B) 60 C) 72 D) 80 E) 96

14. I. $36 \blacklozenge 16 = 10$
 II. $25 \blacklozenge 121 = 16$
 III. $81 \blacklozenge 144 = 21$
 IV. $49 \blacklozenge 169 = ?$
 A) 15 B) 18 C) 20 D) 24 E) 28

15. I. $4 \triangle 24 = 40$
 II. $5 \triangle 42 = 83$
 III. $6 \triangle 134 = 82$
 IV. $7 \triangle 83 = ?$
 A) 148 B) 180 C) 212 D) 242 E) 260

16. I. $2 \star 5 = 29$
 II. $3 \star 4 = 25$
 III. $5 \star 6 = 61$
 IV. $7 \star 2 = ?$
 A) 55 B) 53 C) 48 D) 45 E) 41

1. I. $24 \star 3 = 18$
II. $65 \star 6 = 66$
III. $42 \star 4 = 24$
IV. $17 \star 6 = ?$
A) 24 B) 32 C) 36 D) 48 E) 54

2. I. $6 \blacktriangle 2 = 12$
II. $5 \blacktriangle 4 = 17$
III. $11 \blacktriangle 5 = 26$
IV. $6 \blacktriangle 3 = ?$
A) 8 B) 12 C) 15 D) 24 E) 30

3. I. $61 \otimes 42 = 29$
II. $71 \otimes 21 = 37$
III. $41 \otimes 62 = 25$
IV. $31 \otimes 53 = ?$
A) 8 B) 17 C) 26 D) 34 E) 42

4. I. $26 \star 24 = 48$
II. $15 \star 23 = 30$
III. $34 \star 61 = 49$
IV. $42 \star 13 = ?$
A) 24 B) 30 C) 36 D) 48 E) 60

5. I. $10 \heartsuit 2 = 3$
II. $18 \heartsuit 7 = 2$
III. $12 \heartsuit 1 = 5$
IV. $14 \heartsuit 4 = ?$
A) 3 B) 4 C) 5 D) 6 E) 7

6. I. $3 \spadesuit 5 = 20$
II. $8 \spadesuit 3 = 27$
III. $10 \spadesuit 4 = 44$
IV. $7 \spadesuit 6 = ?$
A) 35 B) 42 C) 45 D) 48 E) 52

7. I. $7 \triangle 3 = 18$
II. $8 \triangle 5 = 35$
III. $10 \triangle 2 = 18$
IV. $5 \triangle 8 = ?$
A) 24 B) 32 C) 36 D) 40 E) 48

8. I. $6 \clubsuit 3 = 12$
II. $9 \clubsuit 5 = 36$
III. $8 \clubsuit 4 = 24$
IV. $7 \clubsuit 5 = ?$
A) 40 B) 35 C) 33 D) 30 E) 28

9. I. $4 \star 5 = 24$
 II. $2 \star 6 = 14$
 III. $8 \star 5 = 48$
 IV. $9 \star 2 = ?$

A) 18 B) 24 C) 27 D) 30 E) 36

10. I. $4 \blacktriangle 3 = 20$
 II. $2 \blacktriangle 7 = 24$
 III. $1 \blacktriangle 9 = 20$
 IV. $5 \blacktriangle 4 = ?$

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

11. I. $4 \otimes 5 = 18$
 II. $7 \otimes 3 = 19$
 III. $6 \otimes 7 = 40$
 IV. $9 \otimes 8 = ?$

A) 72 B) 70 C) 63 D) 56 E) 48

12. I. $8 \star 2 = 5$
 II. $9 \star 3 = 4$
 III. $15 \star 3 = 6$
 IV. $21 \star 7 = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

13. I. $2 \heartsuit 5 = 6$
 II. $4 \heartsuit 8 = 27$
 III. $6 \heartsuit 7 = 40$
 IV. $5 \heartsuit 4 = ?$

A) 28 B) 27 C) 26 D) 20 E) 18

14. I. $4 \blacklozenge 2 = 10$
 II. $8 \blacklozenge 5 = 23$
 III. $7 \blacklozenge 4 = 19$
 IV. $5 \blacklozenge 6 = ?$

A) 11 B) 16 C) 20 D) 23 E) 30

15. I. $15 \triangle 2 = 7$
 II. $21 \triangle 1 = 8$
 III. $39 \triangle 4 = 17$
 IV. $24 \triangle 3 = ?$

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

16. I. $8 \star 7 = 54$
 II. $4 \star 9 = 40$
 III. $6 \star 5 = 28$
 IV. $3 \star 9 = ?$

A) 32 B) 30 C) 27 D) 25 E) 24

1. I. $3 \star 8 = 26$
II. $11 \star 3 = 35$
III. $9 \star 5 = 47$
IV. $8 \star 6 = ?$
A) 50 B) 49 C) 48 D) 47 E) 46

2. I. $7 \blacktriangle 5 = 24$
II. $8 \blacktriangle 10 = 63$
III. $6 \blacktriangle 4 = 15$
IV. $9 \blacktriangle 3 = ?$
A) 12 B) 15 C) 16 D) 24 E) 27

3. I. $2 \otimes 1 = 7$
II. $4 \otimes 3 = 15$
III. $3 \otimes 5 = 14$
IV. $1 \otimes 9 = ?$
A) 8 B) 9 C) 10 D) 11 E) 12

4. I. $2 \star 27 = 11$
II. $5 \star 18 = 11$
III. $8 \star 12 = 12$
IV. $2 \star 15 = ?$
A) 6 B) 7 C) 8 D) 9 E) 10

5. I. $4 \heartsuit 2 = 12$
II. $5 \heartsuit 3 = 16$
III. $10 \heartsuit 8 = 36$
IV. $12 \heartsuit 5 = ?$
A) 28 B) 30 C) 32 D) 34 E) 36

6. I. $5 \diamond 4 = 14$
II. $3 \diamond 2 = 8$
III. $9 \diamond 4 = 22$
IV. $8 \diamond 7 = ?$
A) 21 B) 22 C) 23 D) 24 E) 25

7. I. $10 \triangle 27 = 1$
II. $9 \triangle 18 = 3$
III. $12 \triangle 21 = 5$
IV. $9 \triangle 15 = ?$
A) 1 B) 2 C) 3 D) 4 E) 5

8. I. $12 \star 2 = 2$
II. $24 \star 3 = 5$
III. $27 \star 8 = 1$
IV. $18 \star 2 = ?$
A) 8 B) 7 C) 6 D) 5 E) 4

9. I. $5 \triangle 21 = 3$

II. $4 \triangle 18 = 2$

III. $6 \triangle 12 = 8$

IV. $7 \triangle 9 = ?$

A) 11 B) 10 C) 9 D) 8 E) 7

10. I. $13 \square 20 = 29$

II. $11 \square 16 = 25$

III. $4 \square 8 = 8$

IV. $7 \square 18 = ?$

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

11. I. $2 \otimes 5 = 21$

II. $4 \otimes 6 = 30$

III. $7 \otimes 4 = 33$

IV. $5 \otimes 3 = ?$

A) 27 B) 24 C) 21 D) 18 E) 15

12. I. $8 \star 9 = 7$

II. $10 \star 12 = 9$

III. $16 \star 15 = 13$

IV. $6 \star 27 = ?$

A) 8 B) 9 C) 10 D) 12 E) 15

13. I. $4 \heartsuit 7 = 25$

II. $8 \heartsuit 4 = 20$

III. $3 \heartsuit 1 = 6$

IV. $2 \heartsuit 8 = ?$

A) 27 B) 26 C) 24 D) 21 E) 18

14. I. $7 \diamond 5 = 9$

II. $9 \diamond 4 = 14$

III. $5 \diamond 3 = 7$

IV. $6 \diamond 5 = ?$

A) 7 B) 8 C) 9 D) 10 E) 11

15. I. $11 \triangle 3 = 7$

II. $10 \triangle 6 = 8$

III. $7 \triangle 3 = 5$

IV. $14 \triangle 8 = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

16. I. $1 \star 9 = 11$

II. $4 \star 5 = 13$

III. $7 \star 2 = 16$

IV. $6 \star 6 = ?$

A) 12 B) 15 C) 18 D) 20 E) 24

1. I. $18 \star 6 = 9$
II. $15 \star 12 = 11$
III. $21 \star 10 = 12$
IV. $12 \star 18 = ?$
A) 10 B) 11 C) 12 D) 13 E) 14

2. I. $2 \blacktriangle 10 = 7$
II. $5 \blacktriangle 8 = 9$
III. $7 \blacktriangle 12 = 13$
IV. $4 \blacktriangle 14 = ?$
A) 7 B) 8 C) 9 D) 10 E) 11

3. I. $5 \otimes 9 = 54$
II. $7 \otimes 4 = 32$
III. $2 \otimes 8 = 24$
IV. $3 \otimes 7 = ?$
A) 18 B) 21 C) 24 D) 27 E) 28

4. I. $5 \star 9 = 2$
II. $4 \star 12 = 4$
III. $3 \star 13 = 5$
IV. $7 \star 19 = ?$
A) 6 B) 7 C) 8 D) 9 E) 10

5. I. $3 \heartsuit 8 = 8$
II. $12 \heartsuit 4 = 16$
III. $15 \heartsuit 2 = 10$
IV. $21 \heartsuit 2 = ?$
A) 12 B) 14 C) 15 D) 18 E) 21

6. I. $27 \blacklozenge 3 = 6$
II. $21 \blacklozenge 5 = 4$
III. $39 \blacklozenge 7 = 8$
IV. $42 \blacklozenge 22 = ?$
A) 8 B) 7 C) 6 D) 5 E) 4

7. I. $3 \triangle 4 = 8$
II. $5 \triangle 6 = 14$
III. $2 \triangle 1 = 7$
IV. $4 \triangle 7 = ?$
A) 10 B) 9 C) 8 D) 7 E) 6

8. I. $4 \star 2 = 14$
II. $3 \star 1 = 10$
III. $7 \star 3 = 24$
IV. $5 \star 4 = ?$
A) 19 B) 18 C) 17 D) 16 E) 15

9. I. $2 \star 3 = 9$
 II. $7 \star 5 = 38$
 III. $4 \star 4 = 19$
 IV. $5 \star 2 = ?$
 A) 9 B) 10 C) 11 D) 12 E) 13

10. I. $16 \blacktriangle 3 = 7$
 II. $12 \blacktriangle 2 = 5$
 III. $20 \blacktriangle 4 = 9$
 IV. $24 \blacktriangle 2 = ?$
 A) 6 B) 7 C) 8 D) 9 E) 10

11. I. $12 \otimes 6 = 18$
 II. $8 \otimes 5 = 10$
 III. $4 \otimes 3 = 3$
 IV. $16 \otimes 5 = ?$
 A) 16 B) 17 C) 18 D) 19 E) 20

12. I. $7 \star 3 = 13$
 II. $6 \star 8 = 17$
 III. $2 \star 10 = 15$
 IV. $4 \star 7 = ?$
 A) 17 B) 16 C) 15 D) 14 E) 13

13. I. $3 \heartsuit 5 = 30$
 II. $2 \heartsuit 8 = 32$
 III. $4 \heartsuit 3 = 24$
 IV. $5 \heartsuit 5 = ?$
 A) 55 B) 50 C) 40 D) 30 E) 25

14. I. $2 \diamond 5 = 6$
 II. $4 \diamond 3 = 7$
 III. $8 \diamond 3 = 13$
 IV. $6 \diamond 5 = ?$
 A) 14 B) 15 C) 16 D) 17 E) 18

15. I. $10 \triangle 2 = 7$
 II. $16 \triangle 5 = 13$
 III. $20 \triangle 7 = 17$
 IV. $18 \triangle 5 = ?$
 A) 17 B) 16 C) 15 D) 14 E) 13

16. I. $4 \star 5 = 16$
 II. $3 \star 9 = 23$
 III. $6 \star 7 = 38$
 IV. $4 \star 9 = ?$
 A) 36 B) 35 C) 34 D) 33 E) 32

1. I. $\clubsuit 1236 = 39$
II. $\clubsuit 9413 = 134$
III. $\clubsuit 2517 = 78$
IV. $\clubsuit 7354 = ?$
A) 19 B) 109 C) 118 D) 119 E) 1009

2. I. $\diamond 713 = 604$
II. $\diamond 945 = 836$
III. $\diamond 437 = 328$
IV. $\diamond 878 = ?$
A) 768 B) 779 C) 769 D) 869 E) 868

3. I. $\star 745 = 527$
II. $\star 983 = 349$
III. $\star 169 = 931$
IV. $\star 724 = ?$
A) 217 B) 247 C) 427 D) 417 E) 447

4. I. $\odot 1234 = 212$
II. $\odot 2321 = 62$
III. $\odot 7442 = 288$
IV. $\odot 1991 = ?$
A) 99 B) 1001 C) 1010 D) 909 E) 9119

5. I. $\heartsuit 315 = 45$
II. $\heartsuit 427 = 614$
III. $\heartsuit 326 = 512$
IV. $\heartsuit 827 = ?$
A) 167 B) 1014 C) 1614 D) 1656 E) 5674

6. I. $1625 \blacksquare = 45$
II. $4981 \blacksquare = 79$
III. $12181 \blacksquare = 119$
IV. $1441 \blacksquare = ?$
A) 71 B) 77 C) 114 D) 121 E) 1121

7. I. $19 \blacktriangle = 4$
II. $649 \blacktriangle = 11$
III. $491 \blacktriangle = 8$
IV. $9144 \blacktriangle = ?$
A) 12 B) 13 C) 15 D) 21 E) 38

8. I. $27 \ominus = 9$
II. $125 \ominus = 25$
III. $1 \ominus = 1$
IV. $1000 \ominus = ?$
A) 1 B) 10 C) 100 D) 1000 E) 10000

9. I. $\triangle 417 = 226$

II. $\triangle 839 = 448$

III. $\triangle 258 = 167$

IV. $\triangle 637 = ?$

A) 326 B) 327 C) 328 D) 347 E) 346

10. I. $\diamond 125 = 60$

II. $\diamond 357 = 70$

III. $\diamond 483 = 60$

IV. $\diamond 329 = ?$

A) 16 B) 20 C) 40 D) 80 E) 160

11. I. $5 \triangle = 75$

II. $10 \triangle = 300$

III. $12 \triangle = 432$

IV. $9 \triangle = ?$

A) 169 B) 192 C) 207 D) 216 E) 243

12. I. $\odot 5 = 8$

II. $\odot 3 = 9$

III. $\odot 4 = 10$

IV. $\odot 6 = ?$

A) 1 B) 3 C) 6 D) 9 E) 12

13. I. $\star 100 = 99$

II. $\star 213 = 207$

III. $\star 420 = 414$

IV. $\star 72 = ?$

A) 58 B) 63 C) 68 D) 72 E) 78

14. I. $\clubsuit 11 = 2$

II. $\clubsuit 12 = 9$

III. $\clubsuit 23 = 35$

IV. $\clubsuit 41 = ?$

A) 8 B) 27 C) 46 D) 65 E) 125

15. I. $8 \star = 16, 64, 4$

II. $12 \star = 24, 144, 6$

III. $10 \star = 20, 100, 5$

IV. $6 \star = ?, ?, ?$

A) 3, 18, 12 B) 12, 36, 3 C) 6, 12, 18
D) 24, 36, 18 E) 3, 12, 24

16. I. $9 \triangle 5 = 14, 45, 4$

II. $13 \triangle 3 = 16, 39, 10$

III. $5 \triangle 1 = 6, 5, 4$

IV. $7 \triangle 3 = ?, ?, ?$

A) 21, 7, 4 B) 10, 21, 4 C) 10, 17, 12
D) 14, 7, 9 E) 14, 21, 6

1. I. $2 \star 3 = 10$

II. $7 \star 5 = 24$

III. $12 \star 9 = 42$

IV. $7 \star 4 = ?$

A) 17 B) 20 C) 22 D) 27 E) 41

2. I. $17 \blacktriangle 15 = 6$

II. $13 \blacktriangle 7 = 18$

III. $11 \blacktriangle 4 = 21$

IV. $21 \blacktriangle 14 = ?$

A) 18 B) 21 C) 24 D) 27 E) 30

3. I. $43 \blacktriangle 15 = 29$

II. $18 \blacktriangle 24 = 21$

III. $17 \blacktriangle 15 = 16$

IV. $13 \blacktriangle 15 = ?$

A) 14 B) 16 C) 28 D) 32 E) 45

4. I. $12 \star 18 = 10$

II. $50 \star 13 = 21$

III. $30 \star 12 = 14$

IV. $25 \star 14 = ?$

A) 7 B) 9 C) 11 D) 13 E) 15

5. I. $9 \heartsuit 3 = 60$

II. $7 \heartsuit 4 = 55$

III. $4 \heartsuit 3 = 35$

IV. $-2 \heartsuit 3 = ?$

A) 1 B) 5 C) 7 D) 15 E) 25

6. I. $17 \blacklozenge 2 = 5$

II. $47 \blacklozenge 11 = 12$

III. $59 \blacklozenge 11 = 16$

IV. $60 \blacklozenge 3 = ?$

A) 7 B) 11 C) 13 D) 15 E) 19

7. I. $12 \triangle 8 = 80$

II. $15 \triangle 10 = 125$

III. $10 \triangle 8 = 36$

IV. $7 \triangle 3 = ?$

A) 17 B) 25 C) 30 D) 40 E) 45

8. I. $17 \star 15 = 6$

II. $12 \star 10 = 4$

III. $16 \star 8 = 8$

IV. $15 \star 13 = ?$

A) 1 B) 4 C) 8 D) 16 E) 24

9. I. $2 \star 7 = 18$

II. $4 \star 9 = 52$

III. $5 \star 7 = 60$

IV. $3 \star 9 = ?$

- A) 21 B) 27 C) 32 D) 36 E) 54

10. I. $18 \blacktriangle 3 = 5$

II. $55 \blacktriangle 5 = 10$

III. $35 \blacktriangle 7 = 4$

IV. $14 \blacktriangle 2 = ?$

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

11. I. $3 \otimes 7 = 42$

II. $4 \otimes 3 = 24$

III. $5 \otimes 7 = 70$

IV. $9 \otimes 6 = ?$

- A) 72 B) 84 C) 96 D) 100 E) 108

12. I. $112 \star 413 = 12$

II. $105 \star 112 = 10$

III. $221 \star 311 = 10$

IV. $110 \star 97 = ?$

- A) 7 B) 9 C) 11 D) 13 E) 15

13. I. $432 \heartsuit 131 = 45$

II. $114 \heartsuit 206 = 48$

III. $405 \heartsuit 12 = 27$

IV. $13 \heartsuit 14 = ?$

- A) 15 B) 17 C) 20 D) 27 E) 31

14. I. $3 \spadesuit 4 = 49$

II. $2 \spadesuit 1 = 9$

III. $7 \spadesuit 4 = 121$

IV. $5 \spadesuit 3 = ?$

- A) 16 B) 25 C) 36 D) 49 E) 64

15. I. $62 \triangle 12 = 25$

II. $73 \triangle 3 = 35$

III. $100 \triangle 16 = 42$

IV. $111 \triangle 18 = ?$

- A) 44 B) 45,5 C) 47 D) 49 E)
- $\frac{93}{2}$

16. I. $49 \star 36 = 13$

II. $25 \star 1 = 6$

III. $9 \star 4 = 5$

IV. $16 \star 1 = ?$

- A) 3 B) 5 C) 7 D) 9 E) 11

1. $a \blacksquare b = a^3 - 3a^2b + 3ab^2 - b^3$

$\Rightarrow 5 \blacksquare 2 = ?$

- A) 1 B) 8 C) 27 D) 64 E) 125

2. $2a \blacktriangle b = 3a + b^2$

$\Rightarrow 8 \blacktriangle 2 = ?$

- A) 10 B) 12 C) 14 D) 16 E) 20

3. $\frac{3a}{4} \ddagger 5b = a + b$

$\Rightarrow 3 \ddagger 10 = ?$

- A) 4 B) 6 C) 8 D) 10 E) 13

4. $a^2 \spadesuit b^2 = \sqrt{a+b}$

$\Rightarrow 64 \spadesuit 1 = ?$

- A) 2 B) 3 C) 4 D) 9 E) 16

5. I. $2a \triangle 3b = a \cdot b$

II. $c \square d = \frac{c+d}{4}$

III. $(8 \triangle 6) \square 12 = ?$

- A) 3 B) 5 C) 7 D) 9 E) 11

6. I. $a \spadesuit b = 3a - 2b$

II. $2c \blacktriangle d = 5c - d$

III. $(8 \spadesuit 5) \blacktriangle 4 = ?$

- A) 3 B) 10 C) 26 D) 31 E) 40

7. I. $a \blacksquare b = a + b$

II. $c \triangle d = c - d$

III. $(3 \blacksquare 4) \blacksquare (5 \triangle 2) = ?$

- A) 5 B) 7 C) 9 D) 10 E) 12

8. I. $a \clubsuit b = a \cdot b$

II. $c \blacksquare d = \frac{3 \cdot c}{d}$

III. $(2 \clubsuit 6) \blacksquare (8 \blacksquare 4) = ?$

- A) 4 B) 6 C) 8 D) 12 E) 20

9. I. $\star 17 = 33$

II. $\star 5 = 9$

III. $\star \frac{1}{2} = ?$

A) 0 B) 2 C) 4 D) 8 E) 7

10. I. $\blacktriangle 10 = 95$

II. $\blacktriangle 7 = 44$

III. $\blacktriangle 5 = 20$

IV. $\blacktriangle \blacktriangle 3 = ?$

A) 7 B) 9 C) 11 D) 13 E) 17

11. I. $\otimes 112 = 8$

II. $\otimes 27 = 18$

III. $\otimes 71 = 16$

IV. $\otimes 109 = ?$

A) 4 B) 8 C) 10 D) 17 E) 20

12. I. $\star 213 = 6$

II. $\star 29 = 18$

III. $\star 111 = 1$

IV. $\star 1074 = ?$

A) 0 B) 4 C) 2 D) 12 E) 28

13. I. $\heartsuit 91 = 64$

II. $\heartsuit 74 = 9$

III. $\heartsuit 31 = 4$

IV. $\heartsuit 93 = ?$

A) 16 B) 28 C) 32 D) 36 E) 49

14. I. $\blacklozenge 714 = 471$

II. $\blacklozenge 243 = 324$

III. $\blacklozenge 527 = ?$

A) 14 B) 70 C) 257 D) 752 E) 725

15. I. $\triangle 12 = 5$

II. $\triangle 23 = 13$

III. $\triangle 17 = 50$

IV. $\triangle 34 = ?$

A) 12 B) 17 C) 25 D) 39 E) 44

16. I. $\star 1234 = 10$

II. $\star 784 = 19$

III. $\star 413 = 8$

IV. $\star 642 = ?$

A) 7 B) 10 C) 12 D) 18 E) 22

1. I. $a^3 \star b^2 = a \cdot b$

II. $27 \star 49 = 21$

III. $1 \star 81 = ?$

- A) 3 B) 7 C) 9 D) 10 E) 81

2. I. $\sqrt{a} \blacksquare \sqrt[3]{b} = 2a - b$

II. $7 \blacksquare 2 = 90$

III. $4 \blacksquare 3 = ?$

- A) 5 B) 17 C) 25 D) 39 E) 58

3. I. $\frac{a}{2} \ddagger 3b = a^2 + b$

II. $2 \ddagger 9 = 19$

III. $5 \ddagger 6 = ?$

- A) 19 B) 31 C) 90 D) 102 E) 127

4. I. $a^{1000} \blacktriangle \sqrt[10]{b} = a \cdot b$

II. $1 \blacktriangle \sqrt[10]{3} = 3$

III. $25^{500} \blacktriangle \sqrt[10]{9} = ?$

- A) 86 B) 100 C) 165 D) 405 E) 430

5. I. $7a \blacksquare 4b = b \cdot a$

II. $c^2 \star \sqrt{d} = d - c$

III. $(16 \star 2) \blacksquare 160 = ?$

- A) 0 B) 4 C) 16 D) 18 E) 26

6. I. $a \ast b = (a + b)!$

II. $2 \ast 3 = 120$

III. $2 \ast 2 = ?$

- A) 6 B) 18 C) 24 D) 120 E) 180

7. I. $\star 12 = 3,2$

II. $\star 37 = 10,21$

III. $\star 41 = 5,4$

IV. $\star 18 = ?$

- A) 7,9 B) 9,7 C) 9,8 D) 8,9 E) 7,8

8. I. $\star 91 = 8,10$

II. $\star 87 = 1,15$

III. $\star 75 = 2,12$

IV. $\star 62 = ?$

- A) 4,4 B) 4,8 C) 6,8 D) 8,4 E) 8,8

9. I. $\star 19 = 9$
 II. $\star 23 = 9$
 III. $\star 42 = 16$
 IV. $\star 25 = ?$

A) 3 B) 10 C) 15 D) 25 E) 32

10. I. $\blacktriangle 17 = 24$
 II. $\blacktriangle 25 = 21$
 III. $\blacktriangle 78 = 45$
 IV. $\blacktriangle 13 = ?$

A) 12 B) 15 C) 20 D) 24 E) 37

11. I. $\otimes 718 = 56$
 II. $\otimes 312 = 6$
 III. $\otimes 521 = 10$
 IV. $\otimes 932 = ?$

A) 24 B) 36 C) 42 D) 54 E) 64

12. I. $\clubsuit 112 = 16$
 II. $\clubsuit 320 = 25$
 III. $\clubsuit 56 = 121$
 IV. $\clubsuit 100 = ?$

A) 0 B) 1 C) 10 D) 100 E) 10000

13. I. $\heartsuit 12 = 6$
 II. $\heartsuit 10 = 1$
 III. $\heartsuit 32 = 120$
 IV. $\heartsuit 13 = ?$

A) 12 B) 15 C) 18 D) 24 E) 32

14. I. $\blacklozenge 123 = 6$ $\otimes 24 = 42$
 II. $\blacklozenge 48 = 12$ $\otimes 37 = 73$
 III. $\otimes \blacklozenge 723 = \otimes 12 = 21$
 IV. $\otimes \blacklozenge 917 = ?$

A) 17 B) 32 C) 44 D) 65 E) 71

15. I. $\star 128 = 16$ $\blacksquare 36 = 6$
 II. $\star 271 = 14$ $\blacksquare 100 = 10$
 III. $\blacksquare \star 19 = \blacksquare 9 = 3$
 IV. $\blacksquare \star 49 = ?$

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

16. I. $\blacksquare 572 = 257$
 II. $\blacksquare 756 = 675$
 III. $\blacktriangle 412 = 5$
 IV. $\blacktriangle 728 = 13$
 V. $\blacktriangle \blacksquare 542 = ?$

A) 1 B) 3 C) 5 D) 7 E) 9

1. I. $10 \star 15 = 5$

II. $7 \star 2 = 3$

III. $12 \star 24 = 6$

IV. $7 \star 9 = ?$

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

2. I. $1 \blacktriangle 9 = 4$

II. $25 \blacktriangle 4 = 7$

III. $49 \blacktriangle 81 = 16$

IV. $36 \blacktriangle 16 = ?$

A) 10 B) 9 C) 8 D) 7 E) 6

3. I. $64 \otimes 3 = 11$

II. $16 \otimes 6 = 10$

III. $9 \otimes 2 = 5$

IV. $25 \otimes 4 = ?$

A) 10 B) 9 C) 8 D) 7 E) 6

4. I. $100 \star 7 = 3$

II. $49 \star 2 = 5$

III. $36 \star 2 = 4$

IV. $16 \star 1 = ?$

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

5. I. $5 \heartsuit 49 = 12$

II. $4 \heartsuit 81 = 13$

III. $7 \heartsuit 1 = 8$

IV. $12 \heartsuit 25 = ?$

A) 21 B) 19 C) 17 D) 15 E) 13

6. I. $1 \diamond 9 = 3$

II. $2 \diamond 8 = 4$

III. $3 \diamond 12 = 6$

IV. $4 \diamond 16 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

7. I. $9 \triangle 8 = 6$

II. $8 \triangle 4 = 4$

III. $5 \triangle 10 = 5$

IV. $6 \triangle 3 = ?$

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

8. I. $9 \star 4 = 3$

II. $4 \star 4 = 2$

III. $6 \star 24 = 6$

IV. $25 \star 4 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

9. I. $2 \triangle 36 = 12$

II. $4 \triangle 49 = 28$

III. $3 \triangle 64 = 24$

IV. $6 \triangle 25 = ?$

A) 24 B) 30 C) 36 D) 40 E) 45

10. I. $2 \square 81 = 11$

II. $5 \square 16 = 9$

III. $7 \square 25 = 12$

IV. $1 \square 49 = ?$

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

11. I. $5 \otimes 6 = 4$

II. $9 \otimes 7 = 5$

III. $26 \otimes 12 = 8$

IV. $18 \otimes 13 = ?$

A) 7 B) 6 C) 5 D) 4 E) 3

12. I. $81 \star 3 = 27$

II. $25 \star 4 = 20$

III. $1 \star 6 = 6$

IV. $16 \star 3 = ?$

A) 21 B) 18 C) 15 D) 12 E) 9

13. I. $4 \heartsuit 5 = 9$

II. $9 \heartsuit 7 = 13$

III. $1 \heartsuit 4 = 6$

IV. $16 \heartsuit 7 = ?$

A) 17 B) 16 C) 15 D) 14 E) 15

14. I. $9 \diamond 3 = 1$

II. $16 \diamond 2 = 2$

III. $100 \diamond 2 = 5$

IV. $144 \diamond 4 = ?$

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

15. I. $49 \triangle 16 = 3$

II. $121 \triangle 81 = 2$

III. $64 \triangle 4 = 6$

IV. $100 \triangle 36 = ?$

A) 3 B) 4 C) 5 D) 6 E) 8

16. I. $9 \star 7 = 2$

II. $52 \star 92 = 6$

III. $22 \star 42 = 4$

IV. $64 \star 36 = ?$

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

1. I. $52 \star 3 = 7$
II. $27 \star 11 = 4$
III. $96 \star 15 = 9$
IV. $46 \star 10 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

2. I. $2 \blacktriangle 16 = 10$
II. $5 \blacktriangle 1 = 16$
III. $4 \blacktriangle 25 = 17$
IV. $3 \blacktriangle 36 = ?$

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

3. I. $9 \blacktriangle 4 = 5$
II. $27 \blacktriangle 3 = 8$
III. $2 \blacktriangle 8 = 3$
IV. $48 \blacktriangle 3 = ?$

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

4. I. $13 \star 2 = 5$
II. $1 \star 5 = 2$
III. $10 \star 5 = 7$
IV. $37 \star 1 = ?$

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

E) 6

5. I. $9 \heartsuit 17 = 5$
II. $18 \heartsuit 19 = 6$
III. $58 \heartsuit 43 = 10$
IV. $28 \heartsuit 37 = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

6. I. $36 \blacklozenge 31 = 8$
II. $22 \blacklozenge 62 = 9$
III. $11 \blacklozenge 8 = 4$
IV. $24 \blacklozenge 28 = ?$

A) 8 B) 7 C) 6 D) 5 E) 4

7. I. $24 \triangle 48 = 18$
II. $16 \triangle 25 = 14$
III. $11 \triangle 23 = 7$
IV. $28 \triangle 41 = ?$

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

8. I. $21 \star 35 = 17$
II. $43 \star 28 = 28$
III. $24 \star 32 = 14$
IV. $52 \star 64 = ?$

A) 36 B) 34 C) 32 D) 30 E) 28

9. I. $93 \star 42 = 5$
 II. $62 \star 99 = 4$
 III. $81 \star 51 = 13$
 IV. $82 \star 71 = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

10. I. $79 \blacktriangle 82 = 6$
 II. $57 \blacktriangle 23 = 7$
 III. $49 \blacktriangle 13 = 9$
 IV. $92 \blacktriangle 42 = ?$

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

11. I. $41 \otimes 63 = 6$
 II. $87 \otimes 52 = 4$
 III. $74 \otimes 81 = 10$
 IV. $61 \otimes 92 = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

12. I. $43 \star 22 = 28$
 II. $12 \star 23 = 15$
 III. $36 \star 24 = 54$
 IV. $82 \star 42 = ?$

A) 40 B) 50 C) 56 D) 60 E) 64

13. I. $53 \heartsuit 28 = 9$
 II. $37 \heartsuit 15 = 8$
 III. $96 \heartsuit 83 = 13$
 IV. $47 \heartsuit 65 = ?$

A) 11 B) 10 C) 9 D) 8 E) 7

14. I. $48 \blacklozenge 18 = 24$
 II. $93 \blacklozenge 64 = 3$
 III. $75 \blacklozenge 38 = 11$
 IV. $49 \blacklozenge 62 = ?$

A) 18 B) 22 C) 24 D) 28 E) 30

15. I. $84 \triangle 61 = -4$
 II. $71 \triangle 62 = 4$
 III. $91 \triangle 42 = 7$
 IV. $82 \triangle 55 = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

16. I. $23 \star 41 = 9$
 II. $61 \star 35 = 22$
 III. $43 \star 38 = 31$
 IV. $16 \star 82 = ?$

A) 22 B) 23 C) 24 D) 25 E) 26

1. I. $48 \star 36 = 23$

II. $27 \star 52 = 7$

III. $39 \star 98 = 10$

IV. $79 \star 87 = ?$

A) 32 B) 36 C) 40 D) 44 E) 48

2. I. $73 \blacktriangle 86 = 8$

II. $95 \blacktriangle 63 = 12$

III. $53 \blacktriangle 92 = 14$

IV. $41 \blacktriangle 71 = ?$

A) 14 B) 15 C) 16 D) 18 E) 20

3. I. $25 \blacktriangle 16 = 15$

II. $19 \blacktriangle 57 = 16$

III. $45 \blacktriangle 29 = 7$

IV. $48 \blacktriangle 27 = ?$

A) 22 B) 21 C) 20 D) 19 E) 18

4. I. $46 \star 12 = 26$

II. $81 \star 42 = 16$

III. $73 \star 65 = 51$

IV. $29 \star 53 = ?$

A) 29 B) 31 C) 33 D) 35 E) 37

5. I. $18 \heartsuit 52 = 36$

II. $25 \heartsuit 43 = 44$

III. $32 \heartsuit 91 = 30$

IV. $26 \heartsuit 73 = ?$

A) 58 B) 60 C) 62 D) 64 E) 66

6. I. $43 \blacklozenge 21 = 100$

II. $72 \blacklozenge 11 = 121$

III. $16 \blacklozenge 42 = 169$

IV. $13 \blacklozenge 32 = ?$

A) 100 B) 81 C) 64 D) 49 E) 36

7. I. $78 \blacktriangle 27 = 4$

II. $94 \blacktriangle 16 = 6$

III. $89 \blacktriangle 36 = 4$

IV. $95 \blacktriangle 51 = ?$

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

8. I. $23 \star 14 = 24$

II. $15 \star 21 = 10$

III. $82 \star 31 = 48$

IV. $53 \star 22 = ?$

A) 30 B) 40 C) 55 D) 60 E) 64

9. I. $124 \star 502 = 49$

II. $432 \star 321 = 54$

III. $281 \star 120 = 33$

IV. $512 \star 421 = ?$

- A) 45 B) 48 C) 51 D) 54 E) 56

10. I. $978 \blacktriangle 132 = 4$

II. $754 \blacktriangle 103 = 4$

III. $873 \blacktriangle 101 = 9$

IV. $996 \blacktriangle 130 = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

11. I. $235 \otimes 131 = 10$

II. $974 \otimes 237 = 6$

III. $824 \otimes 142 = 8$

IV. $543 \otimes 621 = ?$

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

12. I. $407 \star 138 = 23$

II. $546 \star 914 = 29$

III. $715 \star 806 = 27$

IV. $436 \star 325 = ?$

- A) 26 B) 25 C) 24 D) 23 E) 22

13. I. $24 \heartsuit 10 = 7$

II. $18 \heartsuit 6 = 6$

III. $27 \heartsuit 7 = 10$

IV. $33 \heartsuit 9 = ?$

- A) 13 B) 12 C) 11 D) 10 E) 9

14. I. $12 \blacklozenge 8 = 40$

II. $23 \blacklozenge 5 = 56$

III. $19 \blacklozenge 4 = 46$

IV. $15 \blacklozenge 2 = ?$

- A) 24 B) 28 C) 34 D) 38 E) 44

15. I. $11 \triangle 8 = 35$

II. $21 \triangle 9 = 48$

III. $15 \triangle 7 = 36$

IV. $18 \triangle 11 = ?$

- A) 51 B) 49 C) 48 D) 45 E) 42

16. I. $4 \star 7 = 23$

II. $5 \star 9 = 34$

III. $9 \star 5 = 86$

IV. $7 \star 10 = ?$

- A) 51 B) 54 C) 57 D) 59 E) 62

1. I. $2 \spadesuit 1 = 9$
II. $5 \spadesuit 6 = 121$
III. $7 \spadesuit 8 = 225$
IV. $3 \spadesuit 9 = ?$
A) 64 B) 81 C) 100 D) 121 E) 144

2. I. $28 \heartsuit 12 = 20$
II. $42 \heartsuit 10 = 26$
III. $34 \heartsuit 14 = 24$
IV. $52 \heartsuit 16 = ?$
A) 26 B) 28 C) 30 D) 32 E) 34

3. I. $36 \square 12 = 16$
II. $25 \square 11 = 12$
III. $41 \square 28 = 23$
IV. $19 \square 32 = ?$
A) 14 B) 15 C) 16 D) 17 E) 18

4. I. $21 \otimes 19 = 6$
II. $44 \otimes 36 = 24$
III. $28 \otimes 24 = 12$
IV. $37 \otimes 30 = ?$
A) 24 B) 21 C) 18 D) 15 E) 12

5. I. $13 \star 11 = 48$
II. $9 \star 5 = 56$
III. $10 \star 8 = 36$
IV. $11 \star 7 = ?$
A) 64 B) 68 C) 72 D) 76 E) 80

6. I. $10 \diamond 4 = 36$
II. $17 \diamond 9 = 64$
III. $25 \diamond 18 = 49$
IV. $43 \diamond 34 = ?$
A) 81 B) 64 C) 49 D) 36 E) 25

7. I. $2 \triangle 3 = 25$
II. $10 \triangle 2 = 60$
III. $9 \triangle 7 = 80$
IV. $8 \triangle 5 = ?$
A) 60 B) 65 C) 70 D) 75 E) 85

8. I. $4 \star 7 = 65$
II. $10 \star 5 = 125$
III. $12 \star 1 = 145$
IV. $9 \star 6 = ?$
A) 153 B) 147 C) 145 D) 117 E) 98

9. I. $46 \triangle 15 = 38$
 II. $52 \triangle 7 = 33$
 III. $24 \triangle 9 = 21$
 IV. $38 \triangle 11 = ?$

A) 26 B) 27 C) 28 D) 29 E) 30

10. I. $5 \square 12 = 29$
 II. $12 \square 15 = 42$
 III. $16 \square 14 = 44$
 IV. $10 \square 27 = ?$

A) 54 B) 60 C) 64 D) 68 E) 70

11. I. $13 \otimes 140 = 29$
 II. $9 \otimes 13 = 68$
 III. $11 \otimes 21 = 100$
 IV. $8 \otimes 15 = ?$

A) 43 B) 47 C) 49 D) 52 E) 60

12. I. $21 \star 43 = 32$
 II. $18 \star 12 = 15$
 III. $34 \star 14 = 24$
 IV. $19 \star 43 = ?$

A) 28 B) 29 C) 30 D) 31 E) 32

13. I. $27 \heartsuit 10 = 7$
 II. $38 \heartsuit 16 = 6$
 III. $45 \heartsuit 12 = 21$
 IV. $29 \heartsuit 9 = ?$

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

14. I. $14 \spadesuit 9 = 55$
 II. $7 \spadesuit 3 = 23$
 III. $8 \spadesuit 4 = 28$
 IV. $10 \spadesuit 5 = ?$

A) 30 B) 32 C) 33 D) 34 E) 35

15. I. $10 \triangle 7 = 77$
 II. $8 \triangle 6 = 54$
 III. $11 \triangle 8 = 96$
 IV. $7 \triangle 9 = ?$

A) 72 B) 70 C) 68 D) 64 E) 63

16. I. $6 \star 8 = 63$
 II. $12 \star 4 = 65$
 III. $10 \star 4 = 55$
 IV. $9 \star 5 = ?$

A) 45 B) 50 C) 55 D) 60 E) 65

1. I. $17 \star 9 = 64$
II. $25 \star 15 = 100$
III. $22 \star 11 = 121$
IV. $15 \star 8 = ?$
A) 25 B) 36 C) 49 D) 64 E) 81
2. I. $19 \blacktriangle 1 = 6$
II. $44 \blacktriangle 23 = 7$
III. $47 \blacktriangle 11 = 12$
IV. $40 \blacktriangle 16 = ?$
A) 9 B) 8 C) 7 D) 6 E) 5
3. I. $\otimes 7 = 16$
II. $\otimes 3 = 8$
III. $\otimes 10 = 22$
IV. $\otimes 19 = ?$
A) 8 B) 12 C) 16 D) 38 E) 40
4. I. $\star 6 = 25$
II. $\star 10 = 45$
III. $\star 13 = 60$
IV. $\star 8 = ?$
A) 20 B) 25 C) 30 D) 35 E) 40
5. I. $17 \star = 56$
II. $13 \star = 12$
III. $25 \star = 35$
IV. $43 \star = ?$
A) 7 B) 12 C) 18 D) 21 E) 28
6. I. $48 \blacklozenge = 15$
II. $72 \blacklozenge = 23$
III. $120 \blacklozenge = 39$
IV. $9 \blacklozenge = ?$
A) 0 B) 1 C) 2 D) 3 E) 4
7. I. $25 \triangle = 50$
II. $17 \triangle = 49$
III. $26 \triangle = 72$
IV. $54 \triangle = ?$
A) 20 B) 36 C) 53 D) 64 E) 80
8. I. $15 \star = 36$
II. $23 \star = 25$
III. $17 \star = 64$
IV. $24 \star = ?$
A) 18 B) 25 C) 36 D) 39 E) 54

9. I. $32 \triangle = 7$
 II. $51 \triangle = 24$
 III. $82 \triangle = 62$
 IV. $73 \triangle = ?$
 A) 10 B) 21 C) 36 D) 43 E) 46

10. I. $213 \square = 16$
 II. $527 \square = 100$
 III. $657 \square = 64$
 IV. $879 \square = ?$
 A) 64 B) 81 C) 100 D) 121 E) 144

11. I. $11 \otimes = 2$
 II. $12 \otimes = 6$
 III. $13 \otimes = 24$
 IV. $41 \otimes = ?$
 A) 25 B) 64 C) 78 D) 120 E) 121

12. I. $23 \star = 24$
 II. $21 \star = 8$
 III. $31 \star = 27$
 IV. $42 \star = ?$
 A) 8 B) 16 C) 32 D) 64 E) 128

13. I. $34 \heartsuit = 25$
 II. $24 \heartsuit = 20$
 III. $71 \heartsuit = 50$
 IV. $81 \heartsuit = ?$
 A) 9 B) 16 C) 28 D) 65 E) 78

14. I. $\diamond 5 = 250$
 II. $\diamond 3 = 54$
 III. $\diamond 1 = 2$
 IV. $\diamond 6 = ?$
 A) 216 B) 232 C) 423 D) 432 E) 612

15. I. $96 \triangle = 27$
 II. $71 \triangle = 216$
 III. $73 \triangle = 64$
 IV. $54 \triangle = ?$
 A) 0 B) 1 C) 81 D) 729 E) 1000

16. I. $7 \star = 20$
 II. $13 \star = 38$
 III. $20 \star = 59$
 IV. $17 \star = ?$
 A) 47 B) 50 C) 55 D) 57 E) 91

1. I. $\clubsuit 375 = 15$
 II. $\clubsuit 451 = 10$
 III. $\clubsuit 983 = 20$
 IV. $\clubsuit 112 = ?$

A) 3 B) 4 C) 7 D) 9 E) 17

2. I. $713 \diamond = 9$
 II. $454 \diamond = 3$
 III. $973 \diamond = 5$
 IV. $814 \diamond = ?$

A) 5 B) 7 C) 11 D) 12 E) 13

3. I. $475 \ast = 33$
 II. $713 \ast = 10$
 III. $312 \ast = 5$
 IV. $847 \ast = ?$

A) 9 B) 13 C) 22 D) 39 E) 43

4. I. $435 \odot = 546$
 II. $713 \odot = 824$
 III. $548 \odot = 659$
 IV. $327 \odot = ?$

A) 216 B) 316 C) 338 D) 427 E) 438

5. I. $\heartsuit 754 = 547$
 II. $\heartsuit 895 = 958$
 III. $\heartsuit 317 = 173$
 IV. $\heartsuit 563 = ?$

A) 365 B) 536 C) 635 D) 653 E) 655

6. I. $\blacksquare 213 = 6$
 II. $\blacksquare 732 = 42$
 III. $\blacksquare 543 = 60$
 IV. $\blacksquare 1098 = ?$

A) 0 B) 1 C) 17 D) 72 E) 720

7. I. $\blacktriangle 427 = 26$
 II. $\blacktriangle 326 = 16$
 III. $\blacktriangle 537 = 32$
 IV. $\blacktriangle 713 = ?$

A) 11 B) 20 C) 21 D) 26 E) 34

8. I. $\odot 312 = 7$
 II. $\odot 427 = 30$
 III. $\odot 505 = 25$
 IV. $\odot 410 = ?$

A) 1 B) 4 C) 5 D) 14 E) 30

9. I. $\triangle 463 = 27$
 II. $\triangle 213 = 5$
 III. $\triangle 725 = 19$
 IV. $\triangle 634 = ?$

A) 16 B) 18 C) 22 D) 27 E) 32

10. I. $\diamond 473 = 347$
 II. $\diamond 589 = 958$
 III. $\diamond 763 = 376$
 IV. $\diamond 121 = ?$

A) 112 B) 122 C) 211 D) 232 E) 311

11. I. $2 \clubsuit 3 = 17$
 II. $4 \clubsuit 2 = 32$
 III. $3 \clubsuit 4 = 145$
 IV. $6 \clubsuit 2 = ?$

A) 60 B) 64 C) 72 D) 100 E) 144

12. I. $\blacksquare 24 = 32$
 II. $\blacksquare 41 = 45$
 III. $\blacksquare 38 = 62$
 IV. $\blacksquare 53 = ?$

A) 58 B) 61 C) 68 D) 71 E) 74

13. $2a \star b^2 = 2a - b$
 $(6 \star 4)^2 \star (8 \star 49)^4 = ?$

A) 14 B) 15 C) 16 D) 17 E) 18

14. I. $\diamond 123 = 36$
 II. $\diamond 215 = 105$
 III. $\diamond 324 = 128$
 IV. $\diamond 412 = ?$

A) 82 B) 96 C) 104 D) 136 E) 142

15. I. $9 \spadesuit 5 = 76$
 II. $4 \spadesuit 7 = 45$
 III. $3 \spadesuit 8 = 61$
 IV. $6 \spadesuit 2 = ?$

A) 30 B) 32 C) 34 D) 36 E) 38

16. I. $6 \times 5 = 4$
 II. $7 \times 9 = 5$
 III. $9 \times 20 = 7$
 IV. $11 \times 7 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

1. I. $3 \clubsuit (2 \spadesuit 1) = 9$
 II. $5 \spadesuit (4 \clubsuit 4) = 21$
 III. $2 \clubsuit (5 \clubsuit 3) = 30$
 IV. $4 \clubsuit (3 \spadesuit 6) = ?$
 A) 22 B) 28 C) 36 D) 40 E) 48
2. I. $14 \star 3 \blacksquare 6 \blacktriangledown 10 = 6$
 II. $5 \blacksquare 2 \blacktriangledown 7 \star 3 = 14$
 III. $15 \blacktriangledown 3 \blacksquare 4 \star 6 = 21$
 IV. $6 \blacksquare 2 \star 5 \blacktriangledown 4 = ?$
 A) 14 B) 13 C) 12 D) 11 E) 10
3. I. $8 \blacktriangle 2 \odot 3 \heartsuit 4 = 16$
 II. $(6 \odot 9) \blacktriangle 4 \odot 1 = 3$
 III. $(7 \heartsuit 2 \odot 4) \blacktriangle 3 = 6$
 IV. $4 \heartsuit 5 \odot 9 \blacktriangle 3 = ?$
 A) 23 B) 24 C) 25 D) 26 E) 27
4. I. $2 \blacktriangledown 3 \clubsuit 5 \spadesuit 1 = 16$
 II. $12 \spadesuit 7 \blacktriangledown 2 \clubsuit 3 = 11$
 III. $6 \clubsuit 3 \spadesuit 7 \blacktriangledown 4 = 15$
 IV. $5 \spadesuit 2 \clubsuit 4 \blacktriangledown 10 = ?$
 A) 5 B) 7 C) 13 D) 18 E) 24
5. I. $16 \times 4 \div 1 \boxplus 2 = 3$
 II. $6 \div 7 \boxplus 8 \times 4 = 11$
 III. $15 \boxplus 10 \div 12 \times 3 = 9$
 IV. $9 \div 6 \times 2 \boxplus 1 = ?$
 A) 8 B) 9 C) 10 D) 11 E) 12
6. I. $6 \circ 4 \circ 5 = 15$
 II. $10 \square 7 \square 1 = 2$
 III. $3 \diamond 2 \diamond 5 = 30$
 IV. $4 \circ 3 \diamond 3 \square 5 = ?$
 A) 8 B) 10 C) 13 D) 16 E) 17
7. I. $4 \clubsuit 5 \square 7 \star 2 = 15$
 II. $12 \square 1 \clubsuit 7 \star 10 = 15$
 III. $6 \star 17 \square 2 \clubsuit 4 = 15$
 IV. $5 \star 9 \clubsuit 2 \square 2 = ?$
 A) 11 B) 20 C) 21 D) 26 E) 34
8. I. $5 \clubsuit 4 \blacktriangle 2 \star 3 = 4$
 II. $6 \star 10 \blacktriangle 5 \clubsuit 8 = 12$
 III. $18 \blacktriangle 3 \clubsuit 15 \star 5 = 16$
 IV. $12 \star 4 \clubsuit 21 \blacktriangle 7 = ?$
 A) 11 B) 12 C) 13 D) 14 E) 15

9. I. $6 \blacksquare 7 \clubsuit 8 \triangle 9 = 43$

II. $3 \clubsuit 2 \blacksquare 1 \triangle 4 = 5$

III. $5 \triangle 8 \clubsuit 7 \blacksquare 6 = -29$

IV. $4 \triangle 2 \blacksquare 1 \clubsuit 9 = ?$

A) 9 B) 6 C) 3 D) 0 E) -3

10. I. $10 \clubsuit 2 \clubsuit 4 \nabla 3 = 15$

II. $16 \nabla 7 \clubsuit 2 \clubsuit 1 = 3$

III. $4 \clubsuit 5 \nabla 2 \clubsuit 8 = 26$

IV. $18 \clubsuit 11 \nabla 8 \clubsuit 3 = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

11. I. $(5 \triangle 3) \blacksquare 2 = 16$

II. $4 \blacksquare (12 \odot 3) = 36$

III. $(15 \odot 4) \triangle 2 = 13$

IV. $4 \blacksquare (3 \odot 2) \triangle 7 = ?$

A) 11 B) 12 C) 13 D) 16 E) 17

12. I. $(5 \times 3)^3 \boxplus 6 = 48$

II. $4 \triangle 2 \boxplus 3 = 10$

III. $(4 \triangle 1)^2 \times 10 = 15$

IV. $(2 \boxplus 3)^2 \times (4 \triangle 5) = ?$

A) 24 B) 25 C) 26 D) 27 E) 28

13. I. $9 \triangle 3 \clubsuit 10 \square 2 = -17$

II. $7 \square 8 \clubsuit 12 \triangle 4 = 53$

III. $2 \square 6 \clubsuit 15 \triangle 3 = 7$

IV. $24 \triangle 3 \clubsuit 6 \square 2 = ?$

A) -4 B) -3 C) -2 D) -1 E) 0

14. I. $7 \diamond 3 \star 4 \triangle 1 = 18$

II. $6 \triangle 1 \diamond 4 \star 5 = 25$

III. $8 \diamond (4 \triangle 5) \star 2 = 6$

IV. $2 \star (7 \diamond 9) \triangle 4 = ?$

A) 27 B) 28 C) 29 D) 30 E) 31

15. I. $(8 \boxdot 10) \odot 3 \boxplus 1 = 5$

II. $8 \odot 4 \boxplus 2 \boxdot 7 = 7$

III. $9 \boxdot 7 \odot 1 \boxplus 8 = 8$

IV. $(11 \boxdot 5 \boxplus 4) \odot 3 = ?$

A) 0 B) 1 C) 2 D) 3 E) 4

16. I. $(19 \diamond 5 \triangle 3) \triangle 3 = 12$

II. $24 \diamond 9 \diamond 7 \triangle 2 = 1$

III. $5 \triangle 4 \diamond 4 \triangle 3 = 8$

IV. $17 \diamond 3 \triangle 3 \diamond 1 = ?$

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

1. I. $(6 \clubsuit 4) \clubsuit 7 = 6$
 II. $(3 \clubsuit 9) \clubsuit 4 = 5$
 III. $(10 \clubsuit 8) \clubsuit 7 = 8$
 IV. $(5 \clubsuit 11) \clubsuit 2 = ?$
 A) 4 B) 5 C) 6 D) 7 E) 8
2. I. $(2 \star 3) \star 1 = 15$
 II. $(4 \star 3) \star 2 = 24$
 III. $(3 \star 1) \star 3 = 17$
 IV. $(5 \star 3) \star 4 = ?$
 A) 26 B) 27 C) 28 D) 29 E) 30
3. I. $(7 \spadesuit 3) \spadesuit 4 = 16$
 II. $(8 \spadesuit 2) \spadesuit 3 = 15$
 III. $(1 \spadesuit 9) \spadesuit 8 = 20$
 IV. $(2 \spadesuit 6) \spadesuit 2 = ?$
 A) 12 B) 13 C) 14 D) 15 E) 16
4. I. $(2 \heartsuit 3) \heartsuit 4 = 16$
 II. $(1 \heartsuit 5) \heartsuit 3 = 17$
 III. $(4 \heartsuit 2) \heartsuit 3 = 14$
 IV. $(3 \heartsuit 5) \heartsuit 7 = ?$
 A) 24 B) 25 C) 26 D) 27 E) 28
5. I. $(12 \diamond 2) \diamond 1 = 2$
 II. $(25 \diamond 3) \diamond 3 = 4$
 III. $(17 \diamond 1) \diamond 2 = 3$
 IV. $(30 \diamond 4) \diamond 1 = ?$
 A) 2 B) 3 C) 4 D) 5 E) 6
6. I. $(2 \blacktriangledown 3) \blacktriangledown 2 = 12$
 II. $4 \blacktriangledown (1 \blacktriangledown 7) = 28$
 III. $3 \blacktriangledown (5 \blacktriangledown 3) = 45$
 IV. $(4 \blacktriangledown 2) \blacktriangledown 3 = ?$
 A) 18 B) 20 C) 24 D) 36 E) 38
7. I. $(12 \blacksquare 23) \blacksquare 11 = 10$
 II. $(25 \blacksquare 18) \blacksquare 24 = 13$
 III. $6 \blacksquare (14 \blacksquare 3) = 14$
 IV. $(5 \blacksquare 17) \blacksquare 37 = ?$
 A) 15 B) 14 C) 13 D) 12 E) 11
8. I. $5 \odot (8 \odot 6) = 6$
 II. $(16 \odot 8) \odot 10 = 11$
 III. $(3 \odot 17) \odot 4 = 7$
 IV. $9 \odot (4 \odot 18) = ?$
 A) 7 B) 8 C) 9 D) 10 E) 11

9. I. $(7 \nabla 6) \nabla 4 = 12$

II. $(3 \nabla 4) \nabla 8 = 9$

III. $(9 \nabla 4) \nabla 6 = 14$

IV. $5 \nabla (1 \nabla 10) = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

10. I. $(3 \triangle 1) \triangle 2 = 60$

II. $(4 \triangle 3) \triangle 6 = 13$

III. $(5 \triangle 4) \triangle 7 = 32$

IV. $(4 \triangle 2) \triangle 10 = ?$

A) 46 B) 44 C) 42 D) 40 E) 38

11. I. $10 \# (6 \# 3) = 11$

II. $6 \# (4 \# 1) = 6$

III. $8 \# (12 \# 4) = 14$

IV. $12 \# (4 \# 5) = ?$

A) 11 B) 12 C) 13 D) 16 E) 17

12. I. $(4 \boxtimes 1) \boxtimes 4 = 43$

II. $(3 \boxtimes 2) \boxtimes 5 = 38$

III. $6 \boxtimes (1 \boxtimes 7) = 28$

IV. $8 \boxtimes (2 \boxtimes 7) = ?$

A) 34 B) 35 C) 36 D) 37 E) 38

13. I. $(5 \otimes 3) \otimes 1 = 9$

II. $(7 \otimes 4) \otimes 2 = 49$

III. $(8 \otimes 3) \otimes 19 = 36$

IV. $(9 \otimes 5) \otimes 11 = ?$

A) 16 B) 25 C) 36 D) 49 E) 64

14. I. $(3 \triangleleft 1) \triangleleft 2 = 20$

II. $6 \triangleleft (2 \triangleleft 3) = 32$

III. $(7 \triangleleft 1) \triangleleft 4 = 40$

IV. $8 \triangleleft (3 \triangleleft 5) = ?$

A) 42 B) 44 C) 46 D) 48 E) 50

15. I. $4 \boxdot (3 \boxdot 9) = 6$

II. $1 \boxdot (4 \boxdot 15) = 4$

III. $7 \boxdot (6 \boxdot 18) = 11$

IV. $5 \boxdot (2 \boxdot 21) = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

16. I. $(7 \triangle 4) \triangle 1 = 10$

II. $(10 \triangle 5) \triangle 2 = 16$

III. $(12 \triangle 4) \triangle 3 = 26$

IV. $(9 \triangle 2) \triangle 5 = ?$

A) 24 B) 22 C) 20 D) 18 E) 16

1. I. $4 \clubsuit 3 = 8$
II. $6 \clubsuit 1 = 5$
III. $10 \clubsuit 4 = 13$
IV. $8 \clubsuit 7 = ?$
A) 17 B) 18 C) 19 D) 20 E) 21
2. I. $6 \star = 207$
II. $4 \star = 54$
III. $5 \star = 117$
IV. $3 \star = ?$
A) 18 B) 24 C) 27 D) 32 E) 36
3. I. $5 \spadesuit 4 = 12$
II. $7 \spadesuit 10 = 19$
III. $6 \spadesuit 2 = 13$
IV. $10 \spadesuit 6 = ?$
A) 21 B) 22 C) 23 D) 24 E) 25
4. I. $43 \ast = 49$
II. $72 \ast = 81$
III. $64 \ast = 100$
IV. $56 \ast = ?$
A) 49 B) 64 C) 81 D) 100 E) 121
5. I. $10 \diamond = 1$
II. $21 \diamond = 6$
III. $14 \diamond = 120$
IV. $31 \diamond = ?$
A) 24 B) 46 C) 62 D) 76 E) 124
6. I. $275 \nabla = 39$
II. $986 \nabla = 10$
III. $358 \nabla = 1$
IV. $864 \nabla = ?$
A) 2 B) 4 C) 8 D) 12 E) 18
7. I. $326 \blacksquare = 9$
II. $539 \blacksquare = 15$
III. $648 \blacksquare = 12$
IV. $469 \blacksquare = ?$
A) 3 B) 4 C) 5 D) 6 E) 7
8. I. $6 \odot = 9$
II. $11 \odot = 19$
III. $8 \odot = 13$
IV. $7 \odot = ?$
A) 10 B) 11 C) 12 D) 13 E) 14

9. I. $6 \nabla 16 = 20$
 II. $4 \nabla 9 = 7$
 III. $8 \nabla 15 = 49$
 IV. $5 \nabla 11 = ?$

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

10. I. $9 \Delta 4 = 25$
 II. $7 \Delta 5 = 32$
 III. $6 \Delta 6 = 42$
 IV. $10 \Delta 3 = ?$

A) 18 B) 19 C) 20 D) 21 E) 22

11. I. $24 \# = 18$
 II. $42 \# = 36$
 III. $75 \# = 63$
 IV. $17 \# = ?$

A) 9 B) 10 C) 11 D) 12 E) 13

12. I. $2 \boxminus = 4$
 II. $3 \boxminus = 18$
 III. $4 \boxminus = 48$
 IV. $5 \boxminus = ?$

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

13. I. $7 \otimes 5 = 16$
 II. $8 \otimes 9 = 15$
 III. $5 \otimes 7 = 8$
 IV. $11 \otimes 6 = ?$

A) 23 B) 24 C) 25 D) 26 E) 27

14. I. $3 \triangleleft 2 = 12$
 II. $8 \triangleleft 5 = 31$
 III. $6 \triangleleft 4 = 24$
 IV. $7 \triangleleft 1 = ?$

A) 14 B) 15 C) 16 D) 17 E) 18

15. I. $4 \boxplus 5 = 58$
 II. $8 \boxplus 3 = 50$
 III. $10 \boxplus 4 = 82$
 IV. $6 \boxplus 2 = ?$

A) 24 B) 26 C) 28 D) 30 E) 32

16. I. $10 \Delta 3 = 9$
 II. $12 \Delta 7 = 4$
 III. $8 \Delta 1 = 10$
 IV. $14 \Delta 5 = ?$

A) 11 B) 10 C) 9 D) 8 E) 7



SAYI ŞEKİL İLİŞKİLERİ

NUMBER - FIGURE RELATIONS

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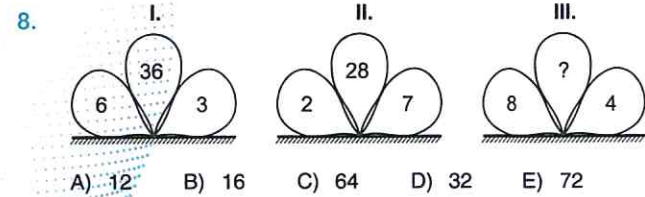
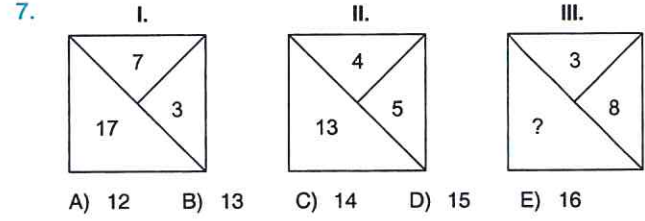
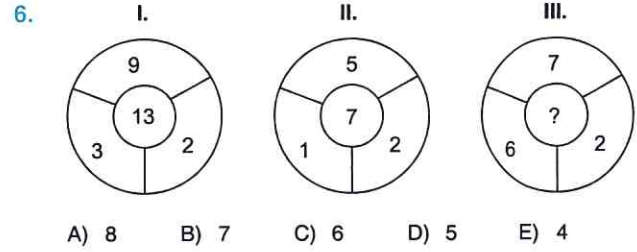
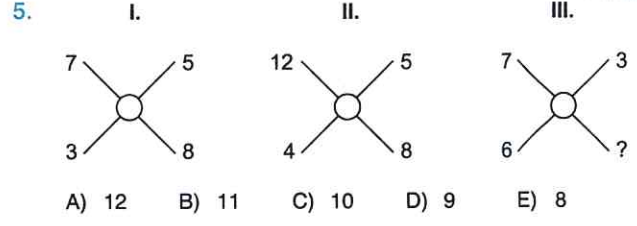
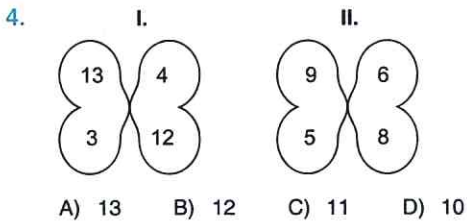
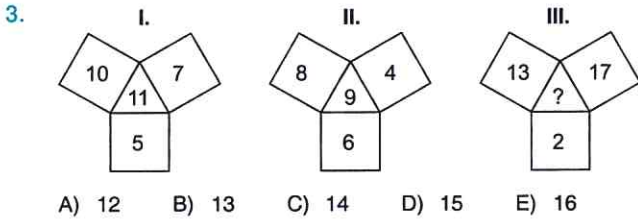
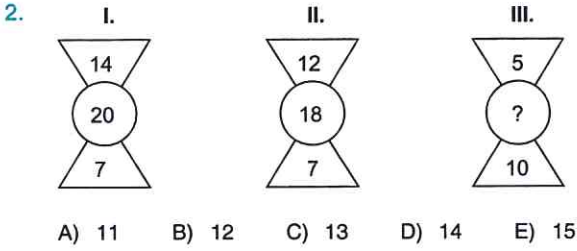
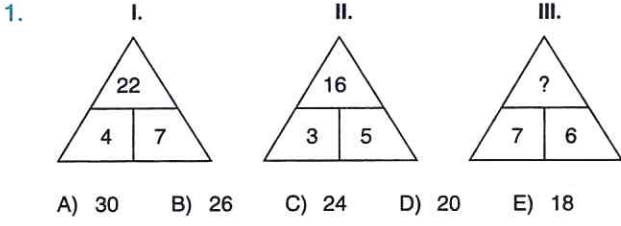
TEST

Tests

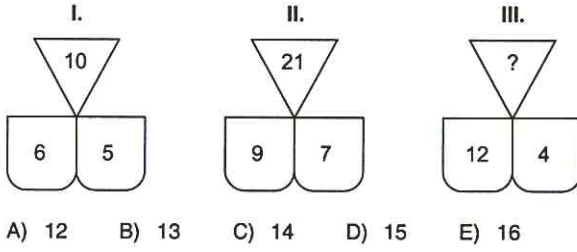
325

SORU

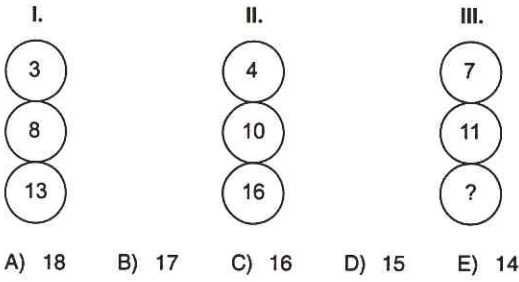
Questions



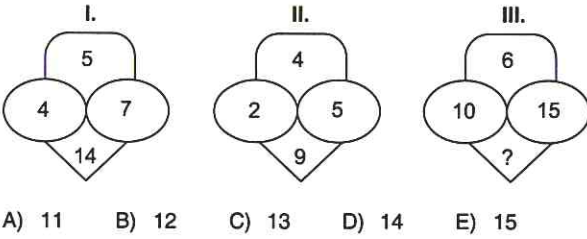
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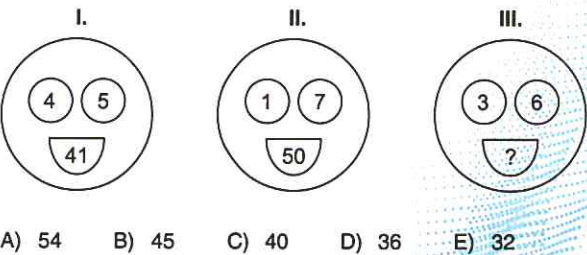
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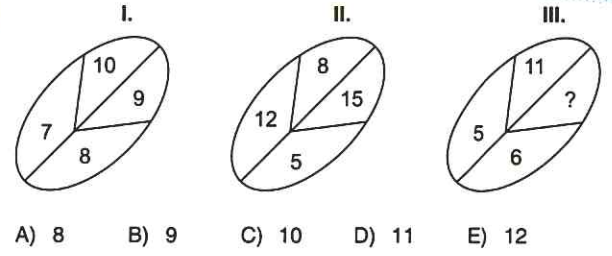
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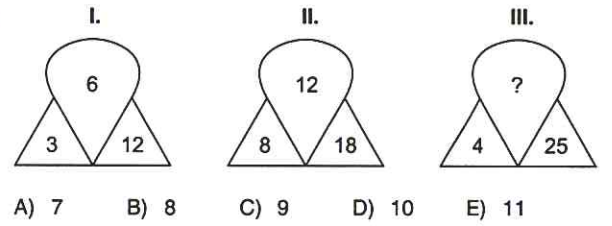
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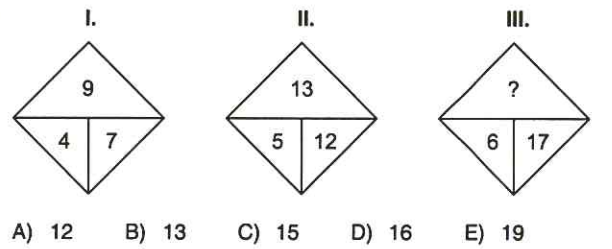
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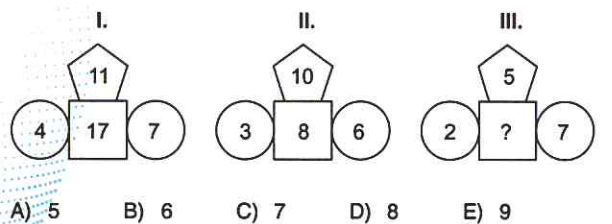
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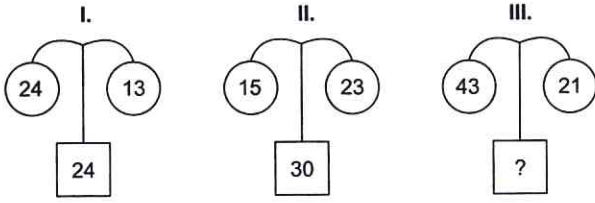
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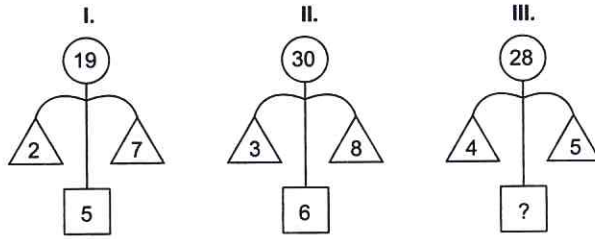


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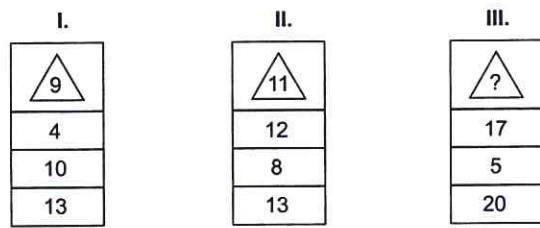
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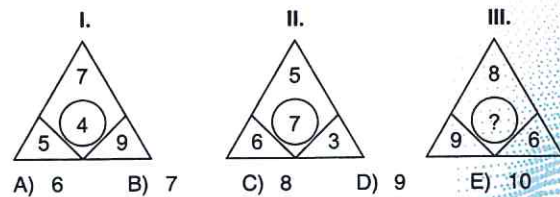
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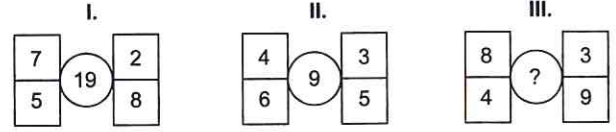
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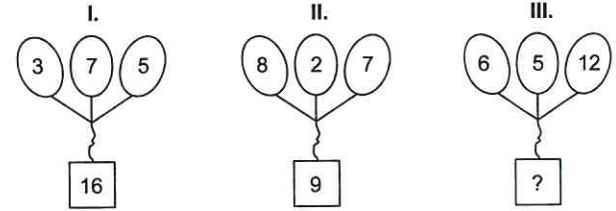
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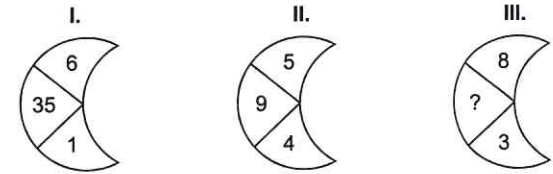
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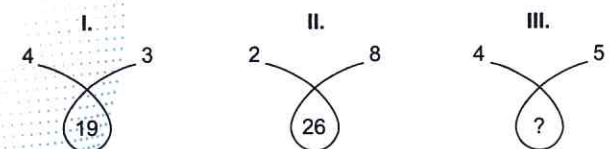
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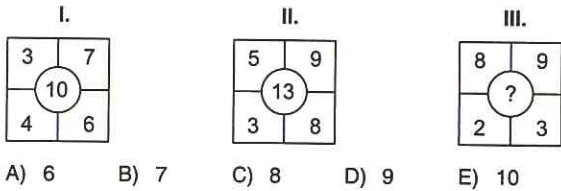
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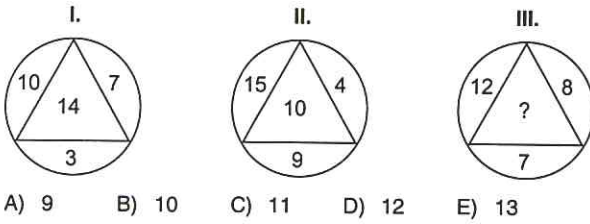


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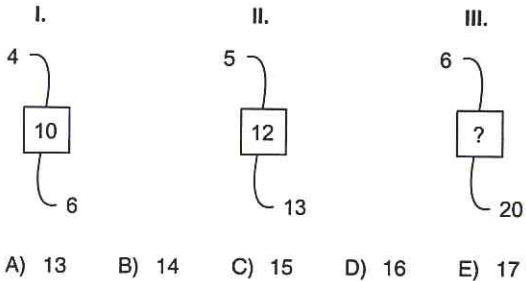
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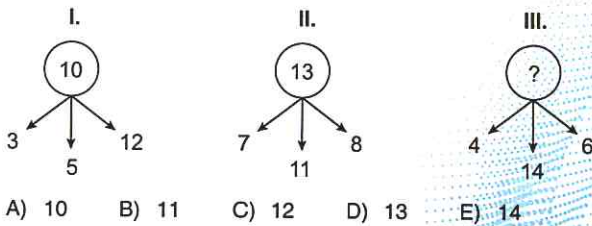
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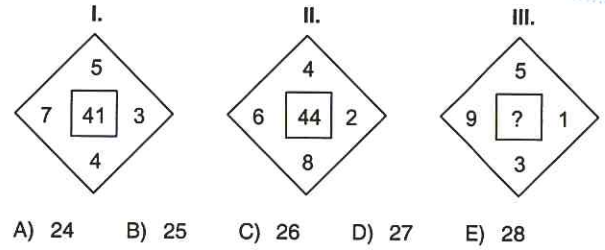
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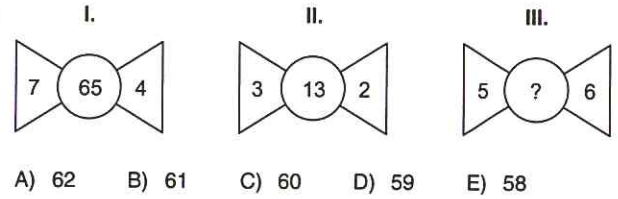
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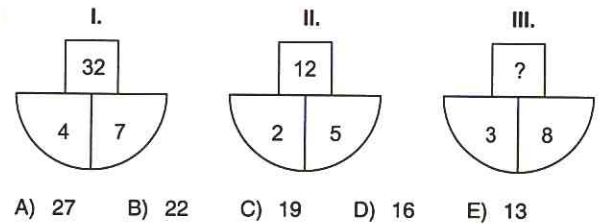
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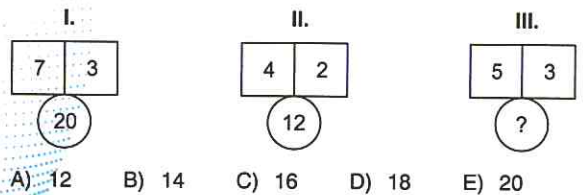
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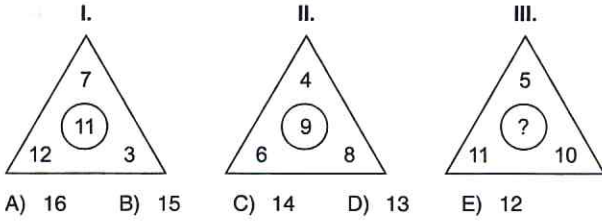
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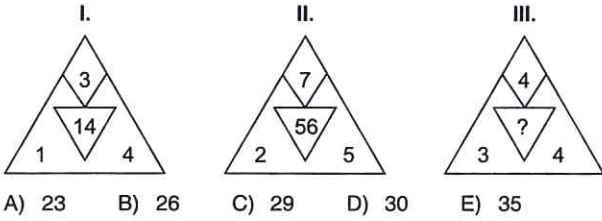
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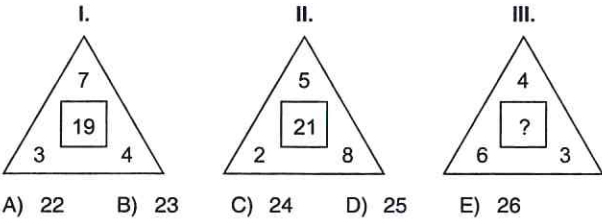
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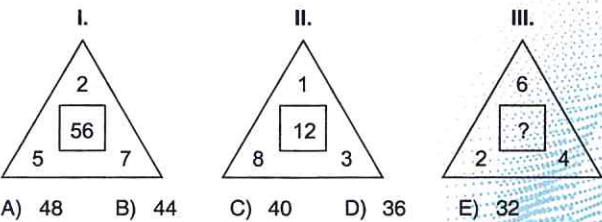
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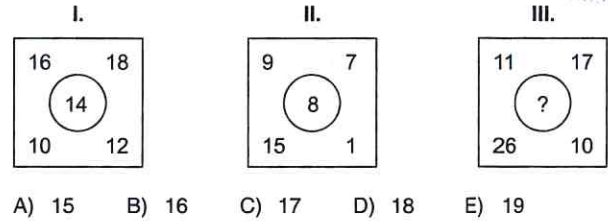
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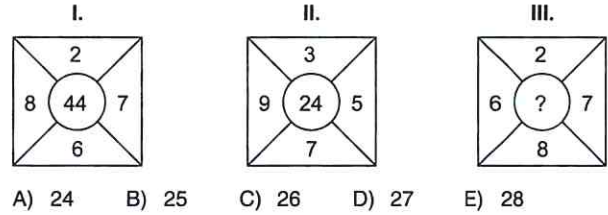
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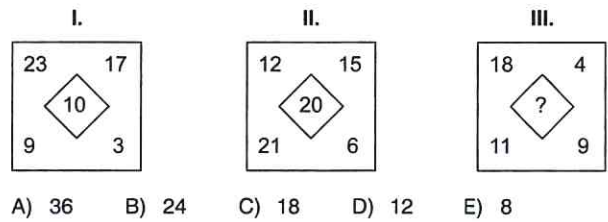
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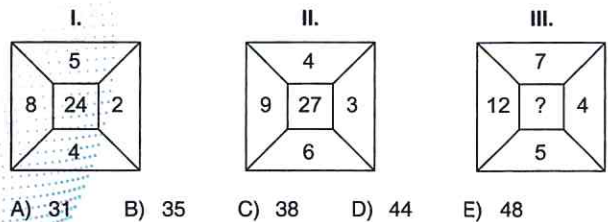
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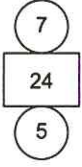
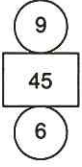
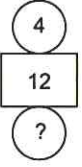


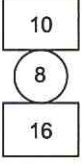
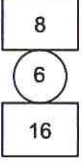
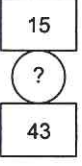
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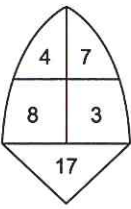
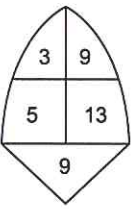
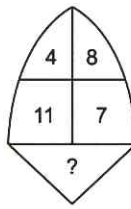


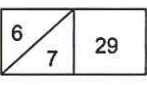
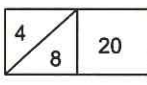
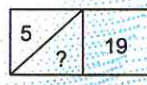
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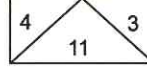
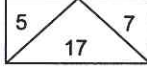
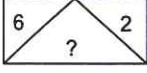


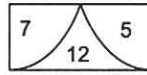
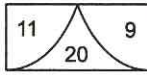
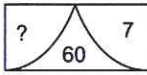
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- I.  II.  III. 
- A) 1 B) 2 C) 3 D) 4 E) 5

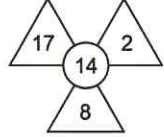
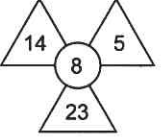
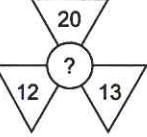
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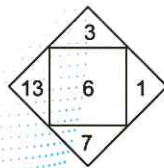
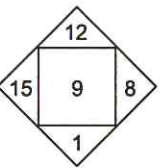
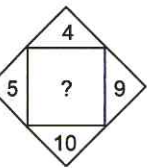
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- A) 2 B) 3 C) 4 D) 5 E) 6

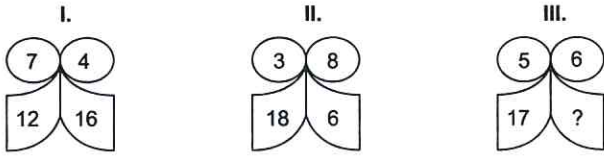
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- A) 11 B) 12 C) 13 D) 14 E) 15

14. I. II. III.
- I.  II.  III. 
- A) 13 B) 14 C) 15 D) 16 E) 17

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- I.  II.  III. 
- A) 12 B) 18 C) 20 D) 24 E) 28

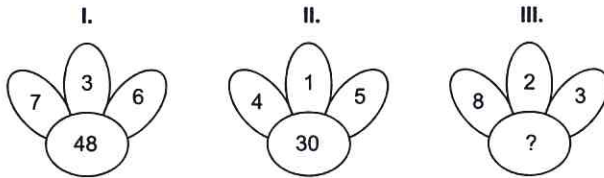
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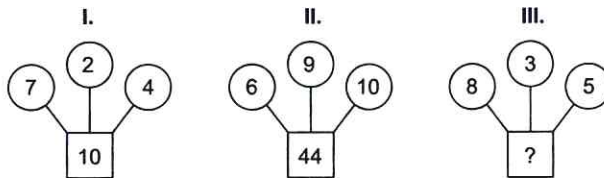
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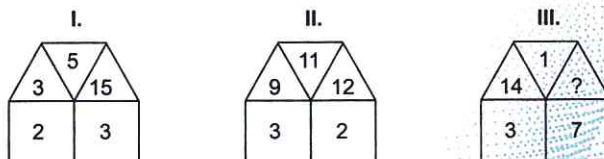
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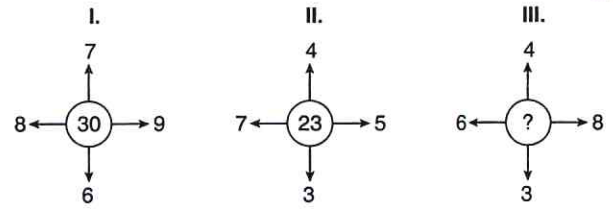
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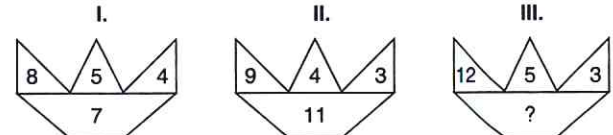
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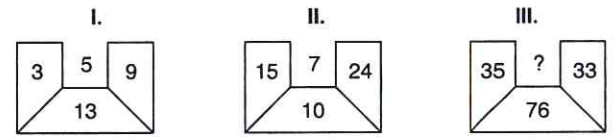
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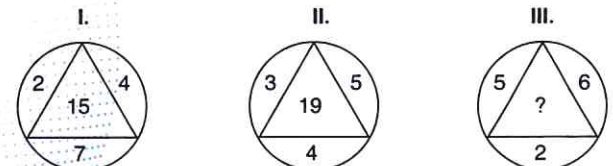
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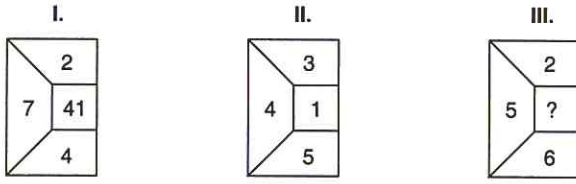
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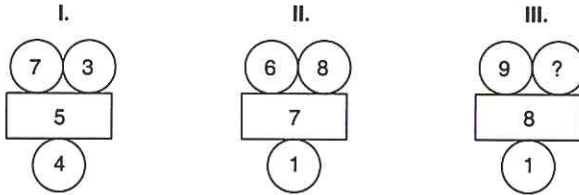
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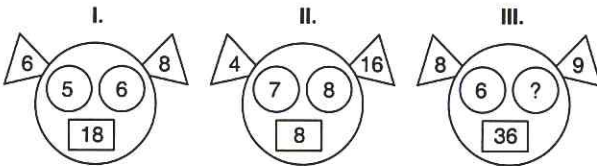
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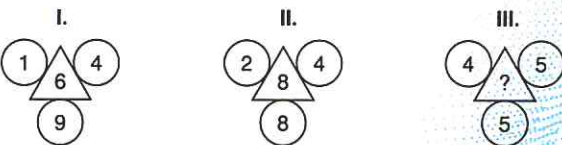
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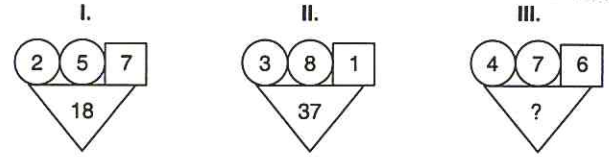
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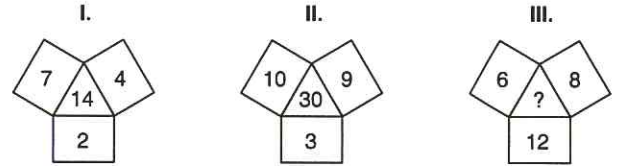
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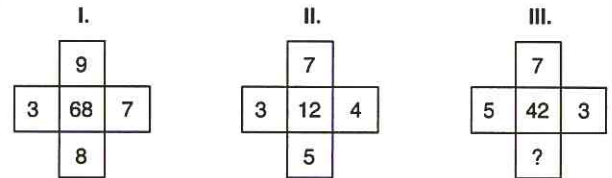
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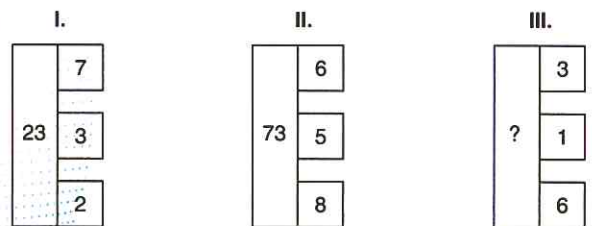
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- A) 14 B) 13 C) 12 D) 11 E) 10

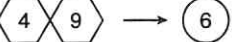
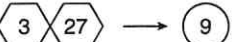
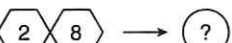
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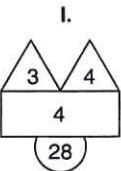
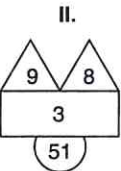
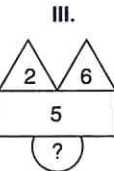
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1. I. 
 II. 
 III. 
 IV. 

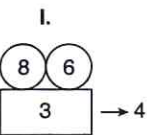
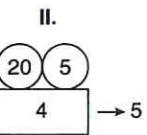
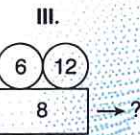
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2. I. 
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 III. 

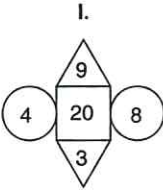
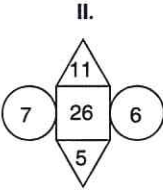
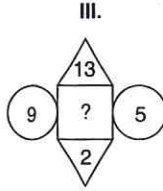
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3. I. 
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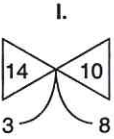
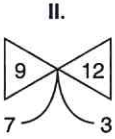
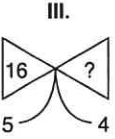
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 III. 

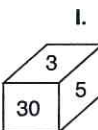
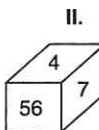
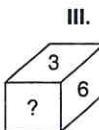
A) 1 B) 2 C) 3 D) 4 E) 5

5. I. 
 II. 
 III. 

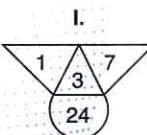
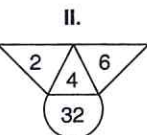
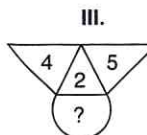
A) 30 B) 28 C) 24 D) 20 E) 16

6. I. 
 II. 
 III. 

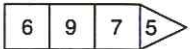
A) 15 B) 12 C) 10 D) 7 E) 4

7. I. 
 II. 
 III. 

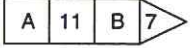
A) 24 B) 36 C) 40 D) 48 E) 60

8. I. 
 II. 
 III. 

A) 18 B) 20 C) 24 D) 27 E) 30

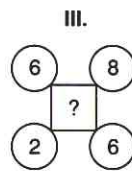
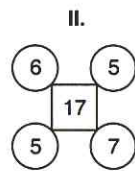
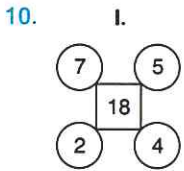
9. I.  → 17

II.  → 19

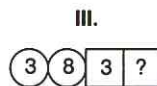
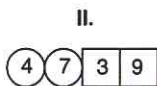
III.  → 20

⇒ A + B = ?

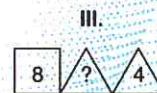
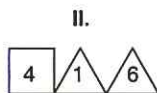
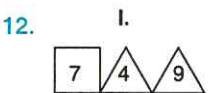
- A) 12 B) 13 C) 14 D) 15 E) 16



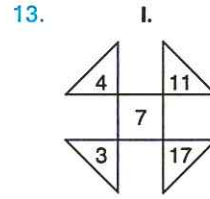
- A) 14 B) 16 C) 18 D) 20 E) 24



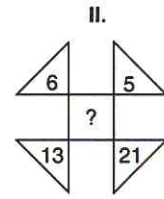
- A) 24 B) 27 C) 30 D) 32 E) 35



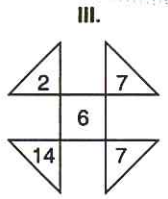
- A) 3 B) 4 C) 5 D) 6 E) 7



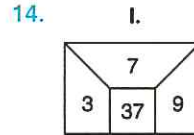
- A) 5 B) 6



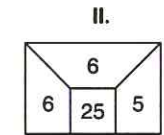
- C) 7 D) 8



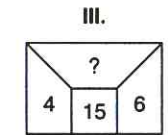
- E) 9



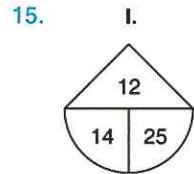
- A) 1 B) 2



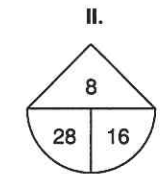
- C) 3 D) 4



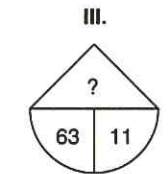
- E) 5



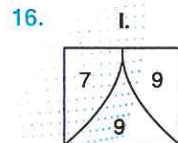
- A) 7 B) 9



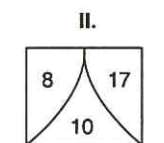
- C) 11 D) 14



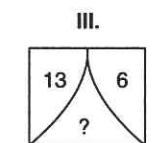
- E) 16



- A) 17 B) 20



- C) 23 D) 25



- E) 30

1. I. II. III.
-
- $\Rightarrow A + B$
- A) 60, 68 B) 56, 72 C) 44, 82
D) 24, 36 E) 50, 64

2. I. II. III.
-
- A) 3 B) 4 C) 5 D) 6 E) 7

3. I. II. III.
-
- $\Rightarrow A, B = ?, ?$
- A) 21, 26 B) 25, 34 C) 21, 34
D) 25, 26 E) 20, 34

4. I. II. III.
-
- $\Rightarrow B - A = ?$
- A) 27 B) 29 C) 32 D) 34 E) 37

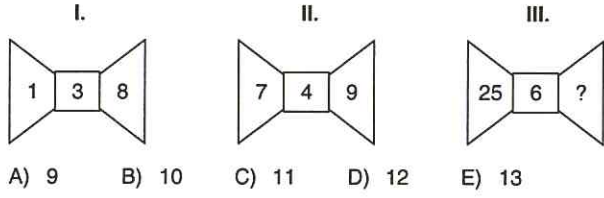
5. I. II. III.
-
- $\Rightarrow A + B = ?$
- A) 56 B) 60 C) 62 D) 65 E) 70

6. I. II. III.
-
- A) 51 B) 55 C) 57 D) 60 E) 62

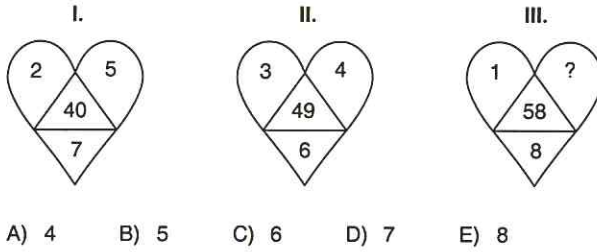
7. I. II. III.
-
- A) 29 B) 27 C) 25 D) 21 E) 17

8. I. II. III.
-
- A) 13 B) 20 C) 28 D) 35 E) 40

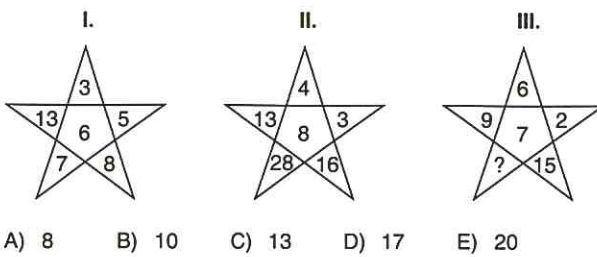
9.



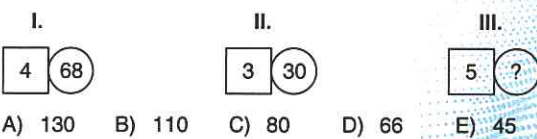
10.



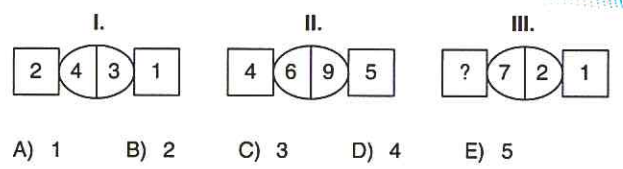
11.



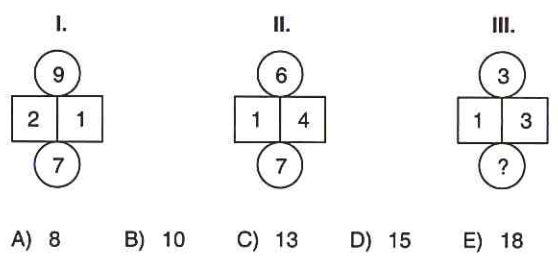
12.



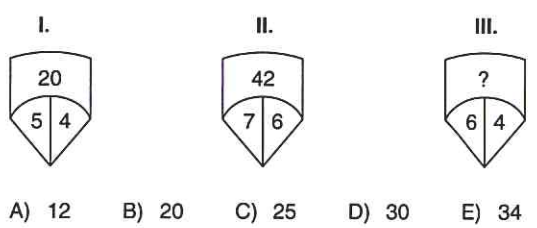
13.



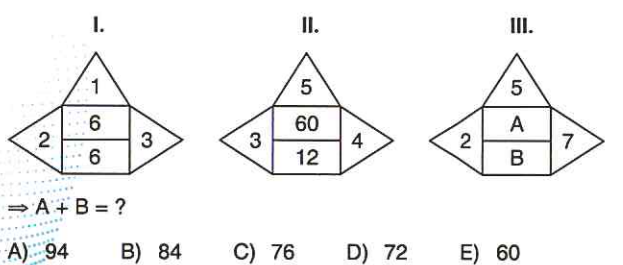
14.



15.



16.



1. I. II. III.
-
- A) 4 B) 5 C) 6 D) 7 E) 8

5. I. II. III.
-
- A) 38 B) 32 C) 30 D) 26 E) 18

2. I. II. III.
-
- A) 32 B) 36 C) 38 D) 40 E) 44

6. I. II. III.
-
- A) 2 B) 4 C) 7 D) 8 E) 9

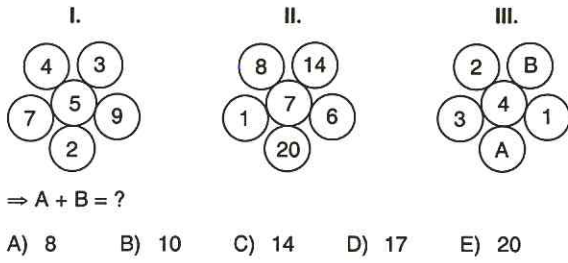
3. I. II. III.
-
- A) 10 B) 11 C) 12 D) 13 E) 14

7. I. II. III.
-
- A) 23 B) 30 C) 47 D) 51 E) 60

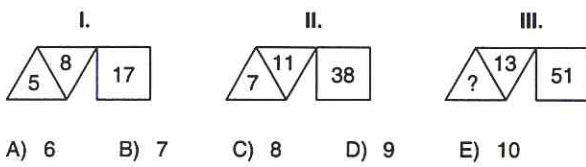
4. I. II. III.
-
- A) 4 B) 7 C) 8 D) 10 E) 12

8. I. II. III.
-
- A) 3 B) 4 C) 6 D) 7 E) 9

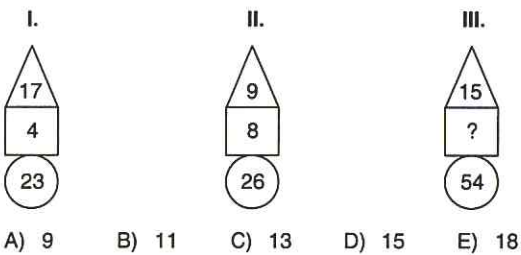
9.



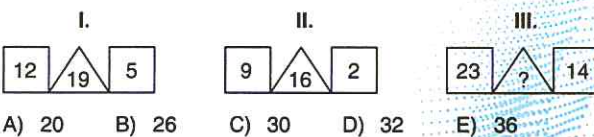
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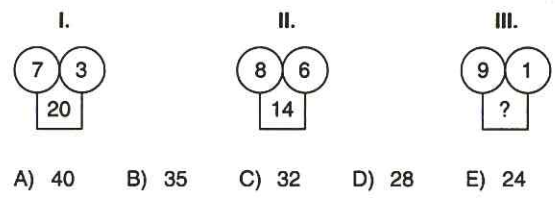
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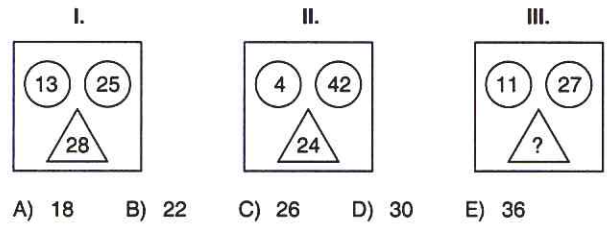
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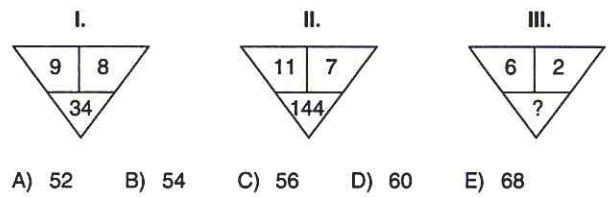
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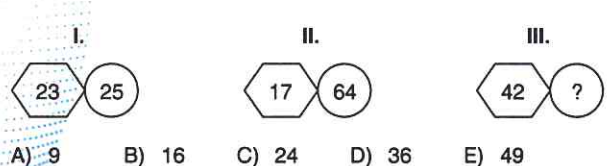
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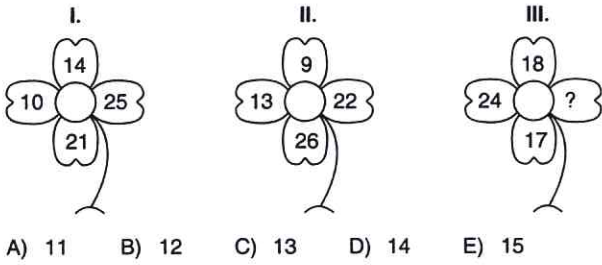
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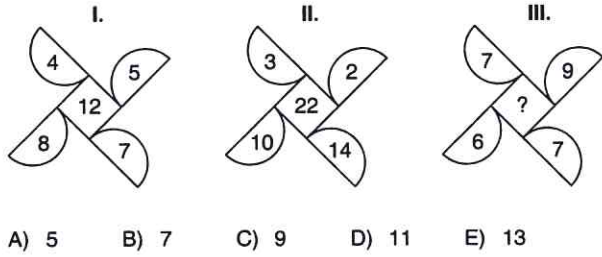
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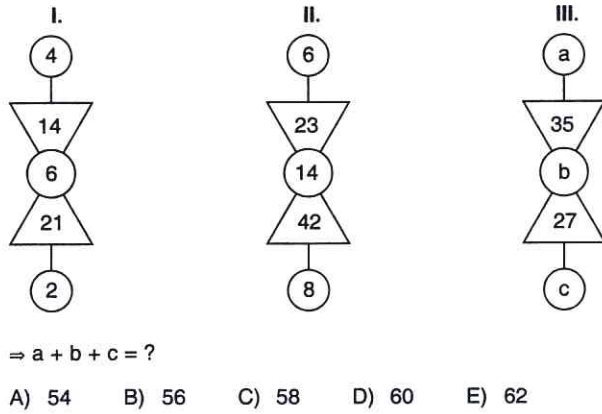
1.



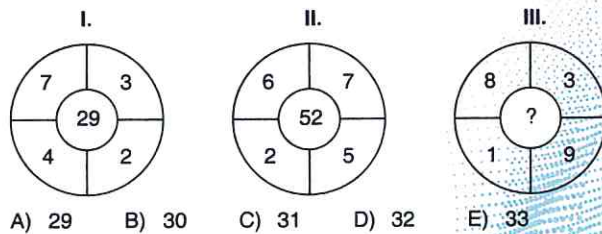
2.



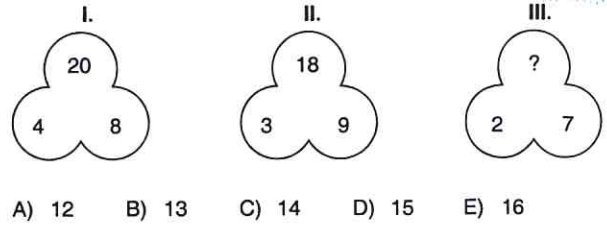
3.



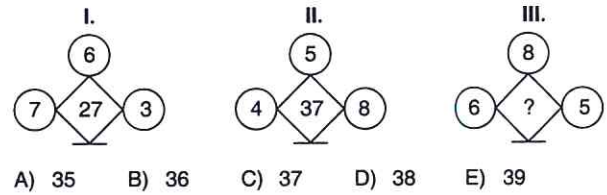
4.



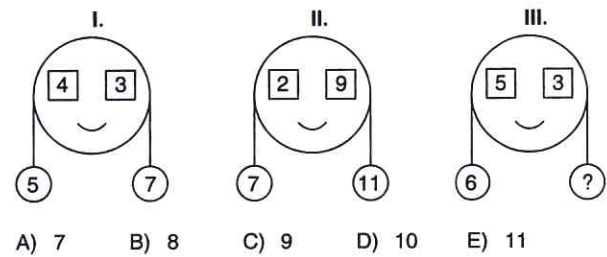
5.



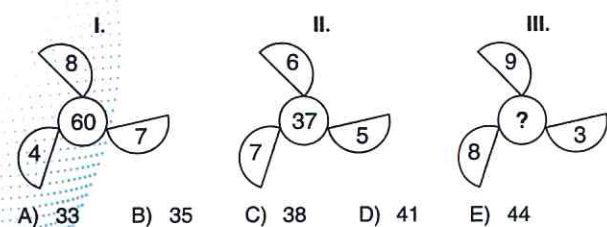
6.



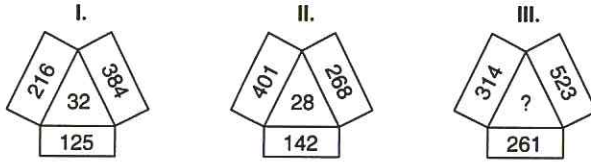
7.



8.

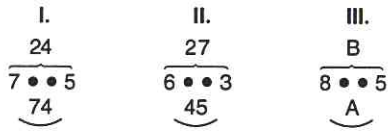


9.



- A) 24 B) 25 C) 26 D) 27 E) 28

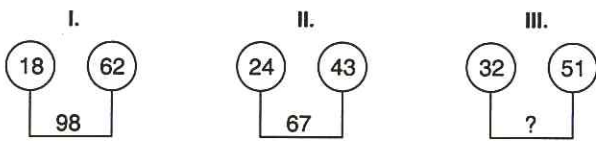
10.



$$\Rightarrow A - 2B = ?$$

- A) 9 B) 10 C) 11 D) 12 E) 13

11.



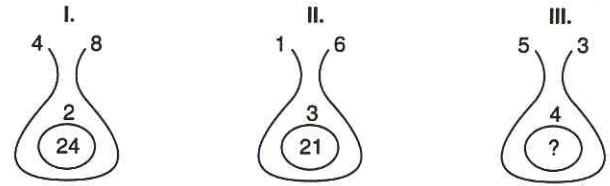
- A) 14 B) 38 C) 52 D) 56 E) 65

12.



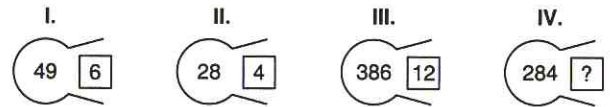
- A) 23 B) 22 C) 21 D) 20 E) 19

13.



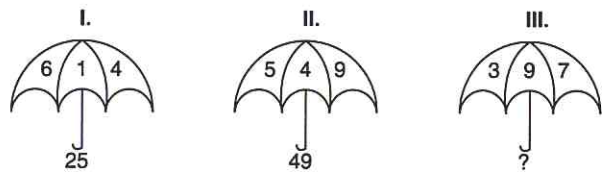
- A) 32 B) 36 C) 40 D) 42 E) 44

14.



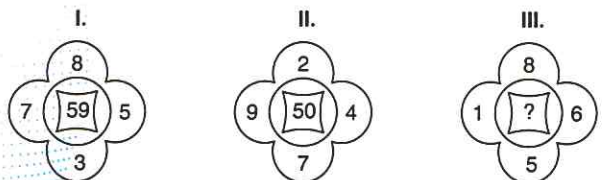
- A) 4 B) 8 C) 10 D) 14 E) 16

15.



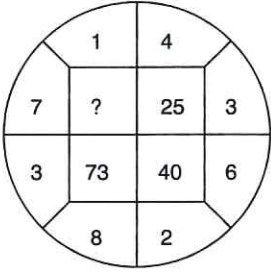
- A) 25 B) 30 C) 36 D) 48 E) 64

16.



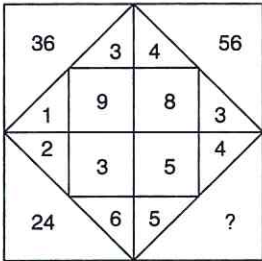
- A) 36 B) 42 C) 46 D) 48 E) 54

1.



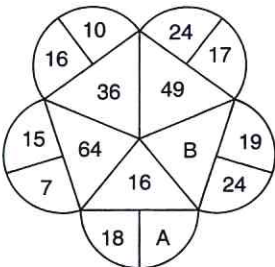
- A) 24 B) 30 C) 38 D) 46 E) 50

2.



- A) 72 B) 68 C) 56 D) 45 E) 42

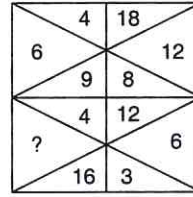
3.



$\Rightarrow A + B = ?$

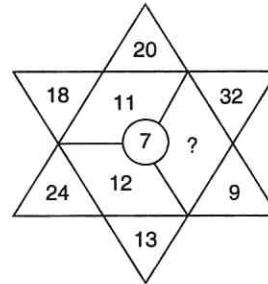
- A) 27 B) 32 C) 39 D) 45 E) 60

4.



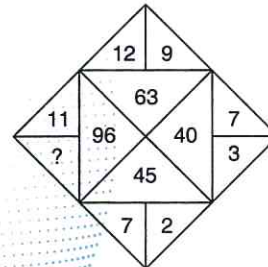
- A) 6 B) 7 C) 8 D) 9 E) 10

5.



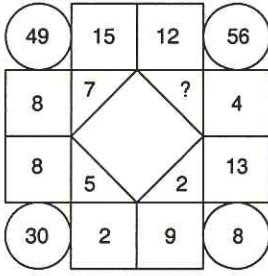
- A) 8 B) 10 C) 14 D) 17 E) 23

6.



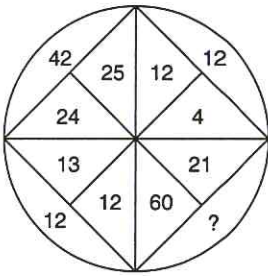
- A) 5 B) 8 C) 10 D) 12 E) 13

7.



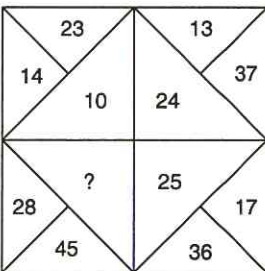
- A) 6 B) 7 C) 8 D) 9 E) 10

8.



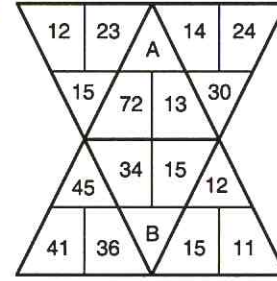
- A) 9 B) 12 C) 15 D) 18 E) 24

9.



- A) 27 B) 36 C) 45 D) 56 E) 63

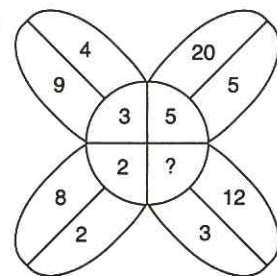
10.



$$\Rightarrow A + B = ?$$

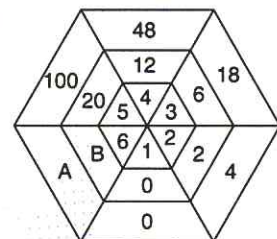
- A) 66 B) 78 C) 86 D) 98 E) 114

11.



- A) 3 B) 5 C) 6 D) 7 E) 8

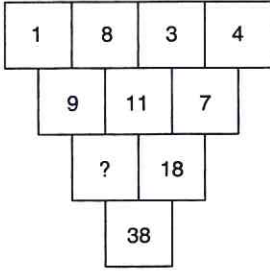
12.



$$\Rightarrow A, B = ?, ?$$

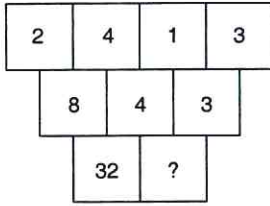
- A) 20, 80 B) 36, 98 C) 180, 30
D) 64, 144 E) 56, 160

1.



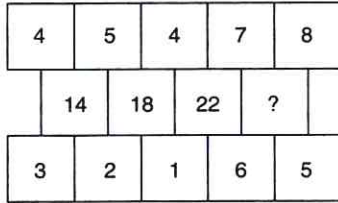
A) 14 B) 16 C) 18 D) 20 E) 22

2.



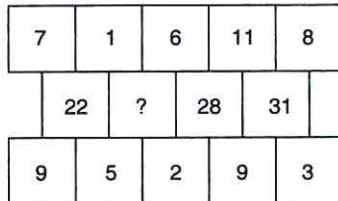
A) 12 B) 18 C) 24 D) 25 E) 26

3.



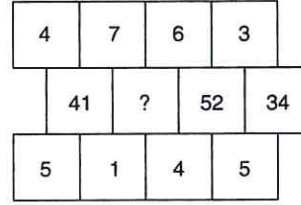
A) 22 B) 23 C) 24 D) 25 E) 26

4.



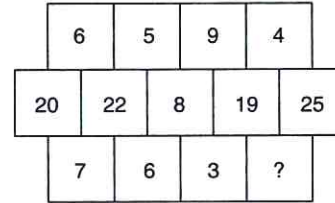
A) 14 B) 18 C) 20 D) 23 E) 26

5.



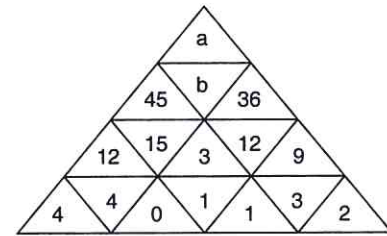
A) 32 B) 44 C) 50 D) 56 E) 68

6.



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

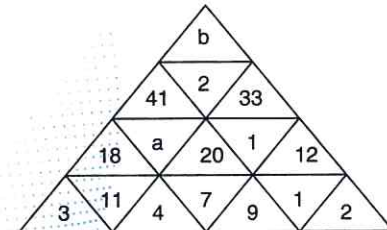
7.



$$\Rightarrow \frac{a}{b} = ?$$

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

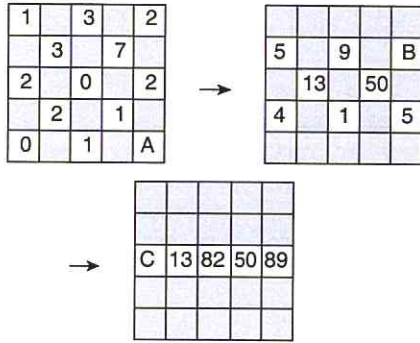
8.



$$\Rightarrow a + b = ?$$

A) 72 B) 79 C) 81 D) 90 E) 98

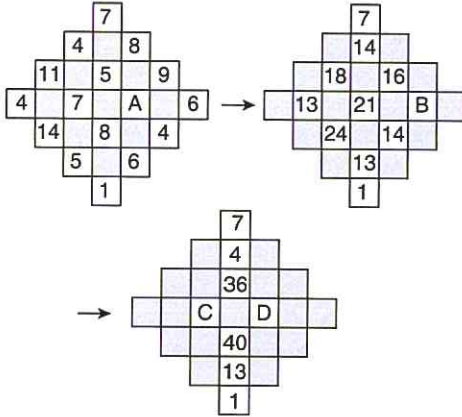
9.



$\Rightarrow A + B + C = ?$

- A) 34 B) 40 C) 42 D) 46 E) 50

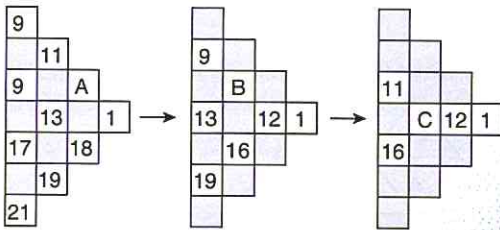
10.



$\Rightarrow A + D - (B + C) = ?$

- A) -9 B) -1 C) 8 D) 17 E) 23

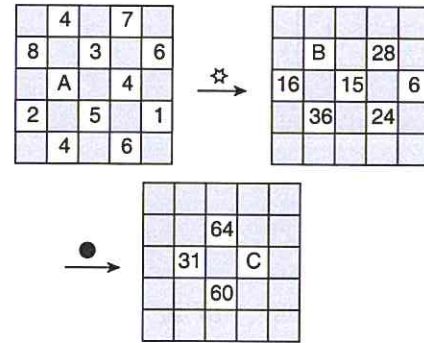
11.



$\Rightarrow A + B + C = ?$

- A) 8 B) 20 C) 24 D) 32 E) 14

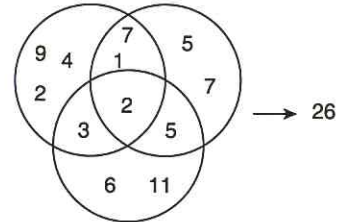
12.



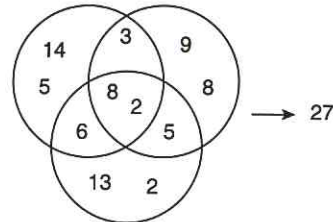
$\Rightarrow A + B - C = ?$

- A) 18 B) 24 C) 20 D) 35 E) 42

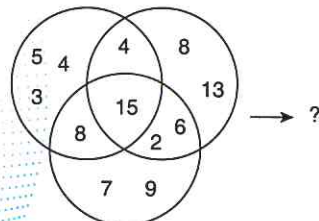
13. I.



II.

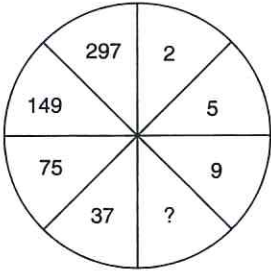


III.



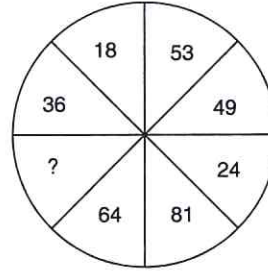
- A) 14 B) 18 C) 27 D) 30 E) 36

1.



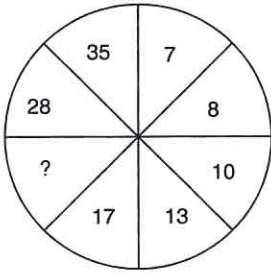
- A) 19 B) 21 C) 22 D) 23 E) 24

5.



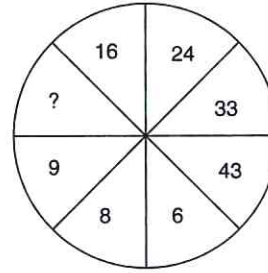
- A) 28 B) 42 C) 61 D) 71 E) 79

2.



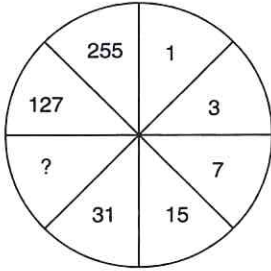
- A) 22 B) 23 C) 24 D) 25 E) 26

6.



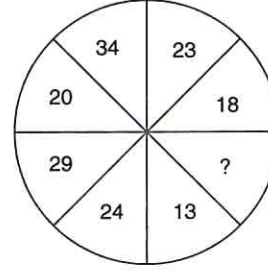
- A) 18 B) 16 C) 14 D) 12 E) 10

3.



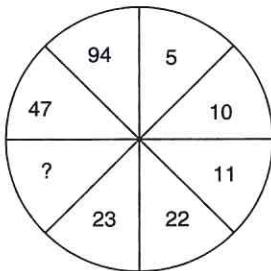
- A) 64 B) 63 C) 62 D) 61 E) 60

7.



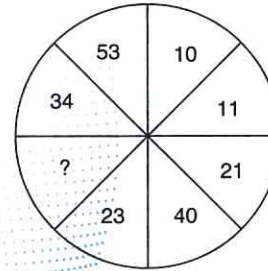
- A) 24 B) 25 C) 26 D) 27 E) 28

4.



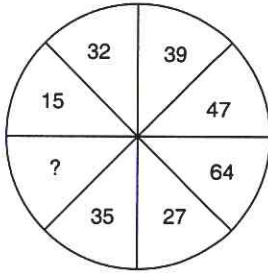
- A) 38 B) 40 C) 42 D) 44 E) 46

8.



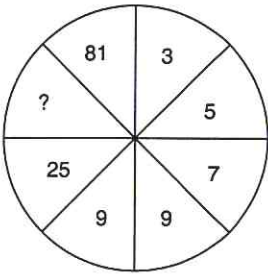
- A) 22 B) 36 C) 51 D) 54 E) 62

9.



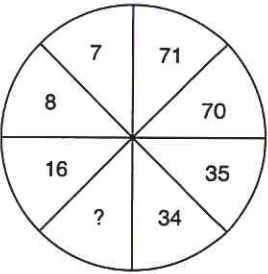
- A) 16 B) 23 C) 36 D) 42 E) 51

10.



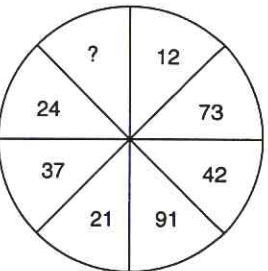
- A) 4 B) 16 C) 36 D) 49 E) 64

11.



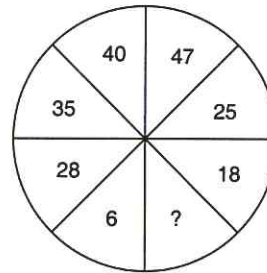
- A) 21 B) 20 C) 19 D) 18 E) 17

12.



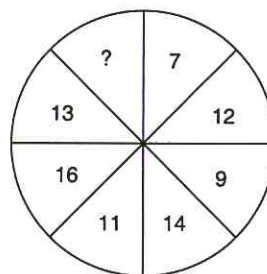
- A) 8 B) 16 C) 19 D) 26 E) 32

13.



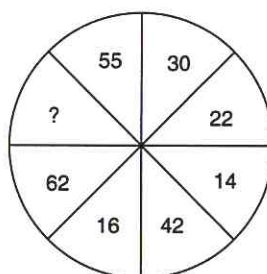
- A) 14 B) 13 C) 12 D) 11 E) 10

14.



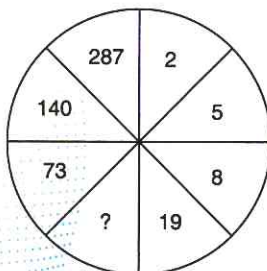
- A) 16 B) 17 C) 18 D) 19 E) 20

15.



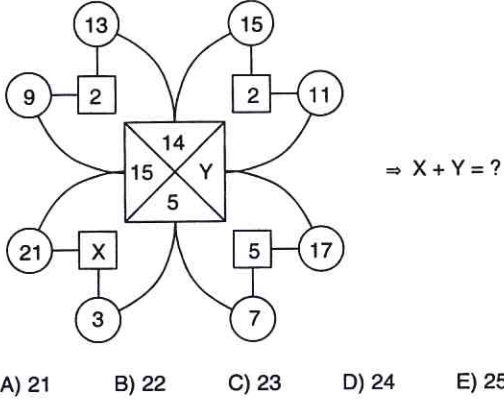
- A) 53 B) 45 C) 37 D) 26 E) 19

16.

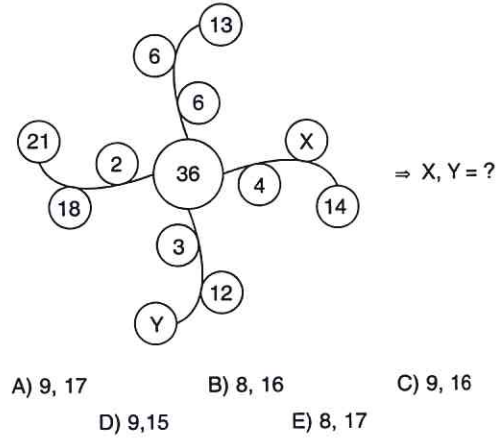


- A) 40 B) 38 C) 36 D) 34 E) 32

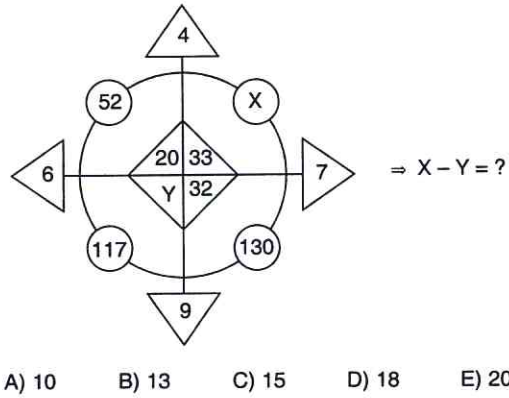
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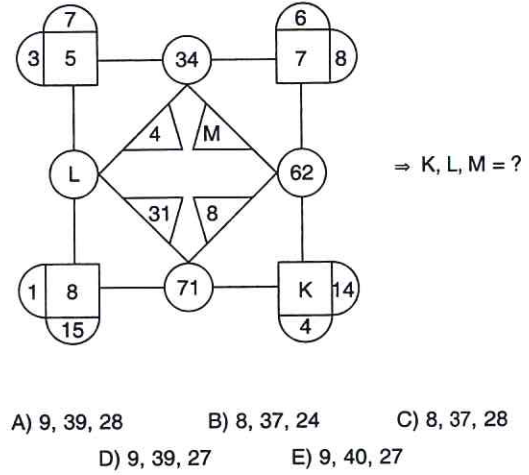
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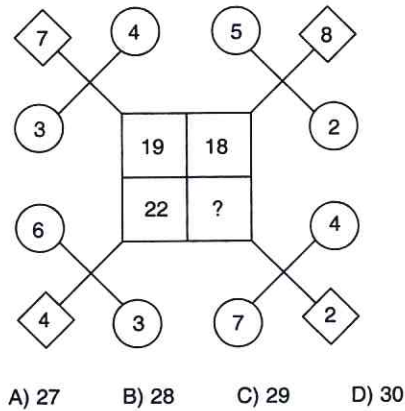
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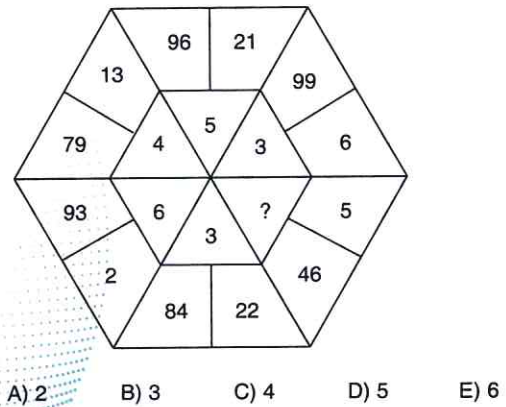
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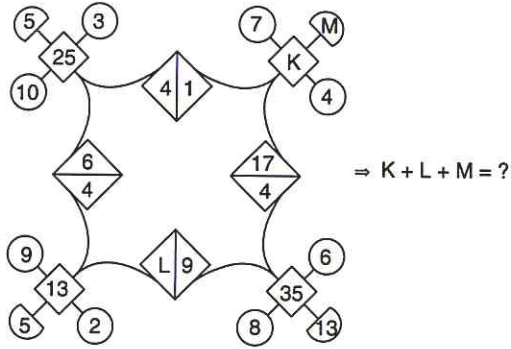
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6.

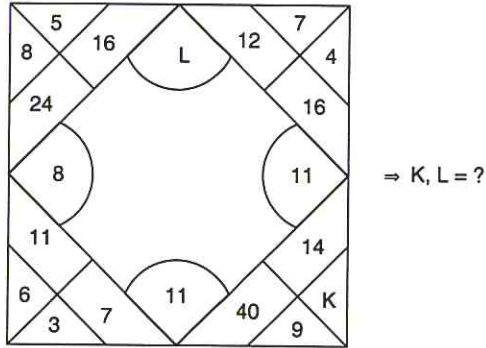


7.



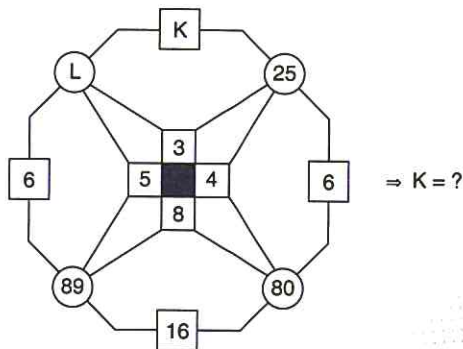
- A) 28 B) 29 C) 30 D) 31 E) 32

8.



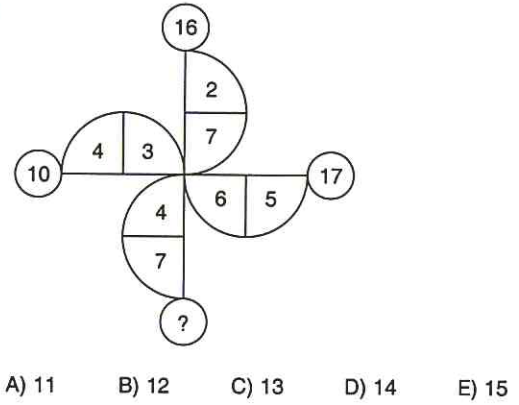
- A) 7, 9 B) 7, 10 C) 6, 11 D) 6, 9 E) 6, 10

9.



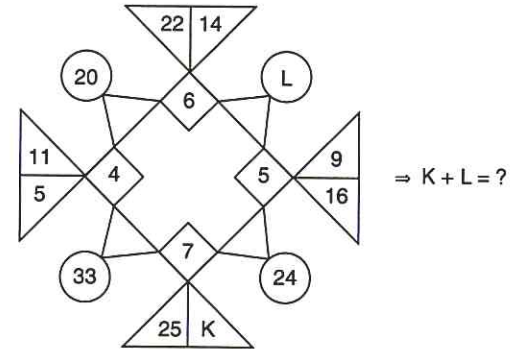
- A) 12 B) 13 C) 14 D) 15 E) 16

10.



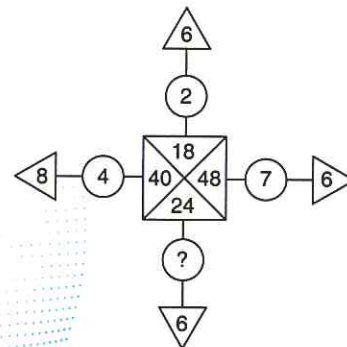
- A) 11 B) 12 C) 13 D) 14 E) 15

11.



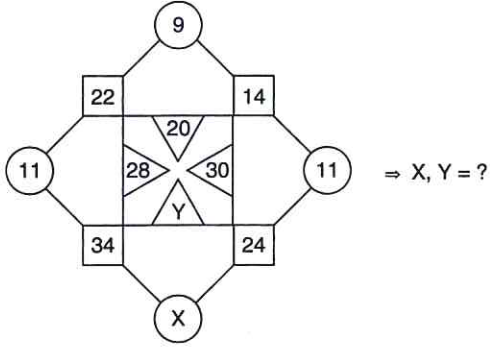
- A) 34 B) 35 C) 36 D) 37 E) 38

12.



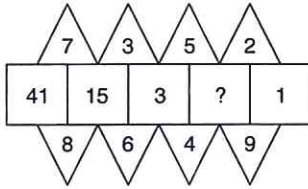
- A) 2 B) 3 C) 4 D) 5 E) 6

1.



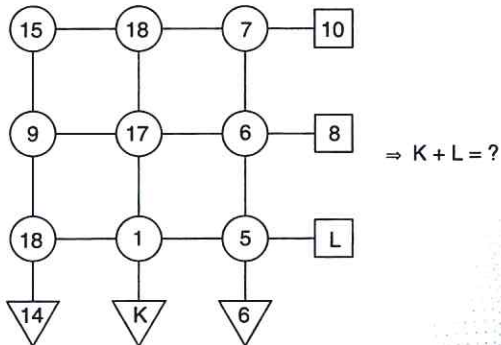
- A) 11, 42 B) 12, 42 C) 12, 40
D) 13, 40 E) 13, 42

2.



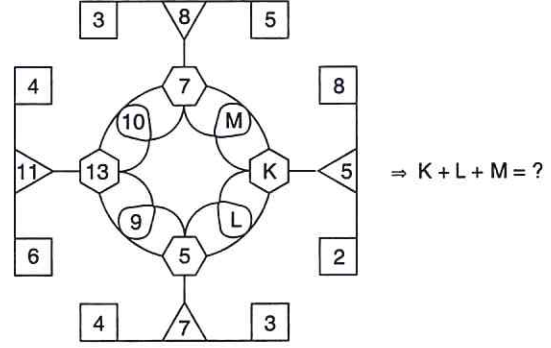
- A) 15 B) 16 C) 17 D) 18 E) 19

3.



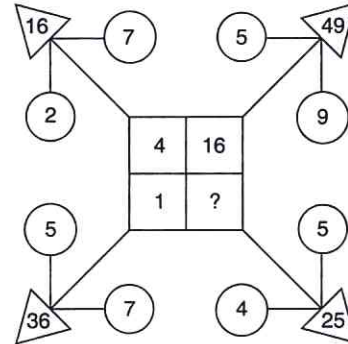
- A) 15 B) 16 C) 17 D) 18 E) 19

4.



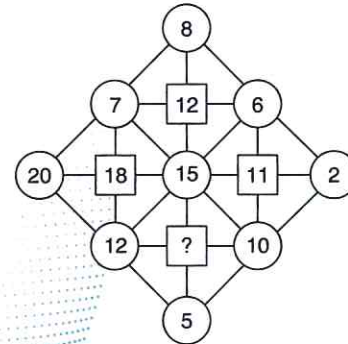
- A) 28 B) 29 C) 30 D) 31 E) 32

5.



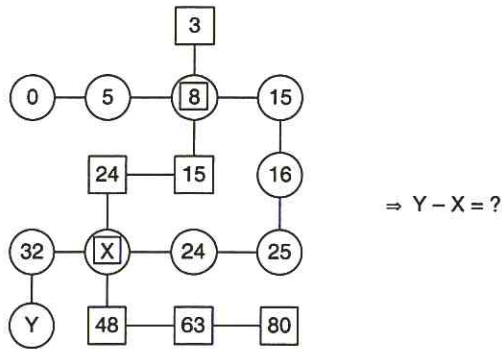
- A) 1 B) 4 C) 9 D) 16 E) 25

6.



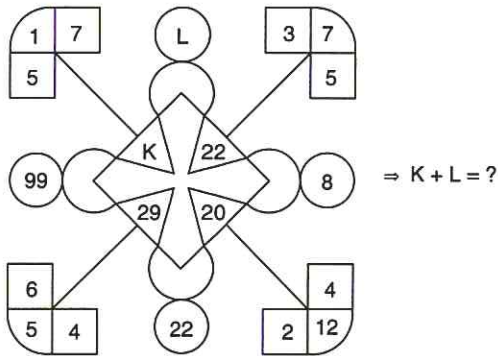
- A) 11 B) 12 C) 13 D) 14 E) 15

7.



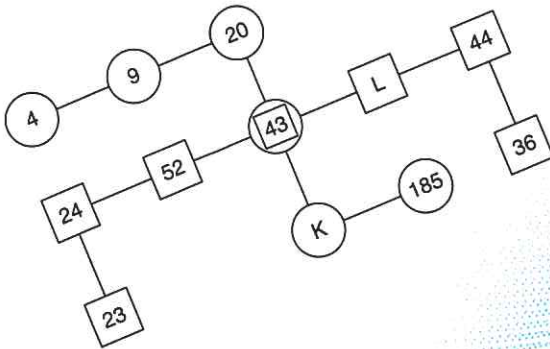
A) 7 B) 8 C) 9 D) 10 E) 11

8.



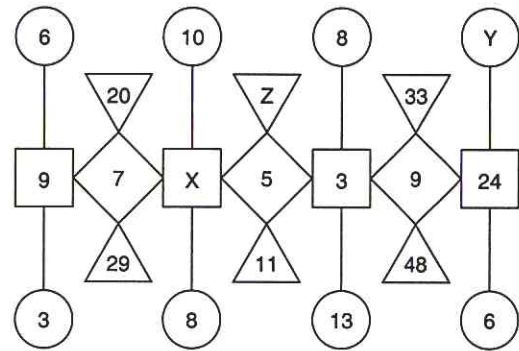
A) 24 B) 36 C) 48 D) 54 E) 72

9.


$$\Rightarrow K - L = ?$$

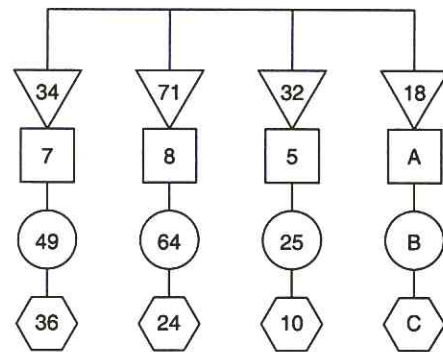
A) 16 B) 17 C) 18 D) 19 E) 20

10.


$$\Rightarrow X + Y + Z = ?$$

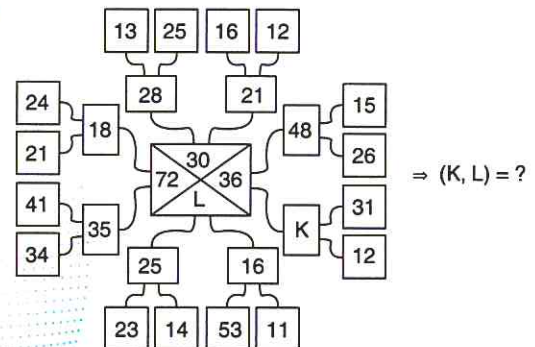
A) 39 B) 40 C) 41 D) 42 E) 43

11.


$$\Rightarrow A + B + C = ?$$

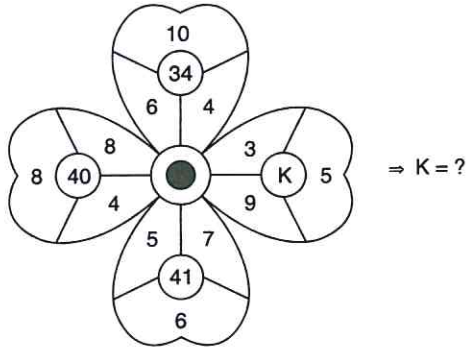
A) 96 B) 98 C) 105 D) 112 E) 124

12.



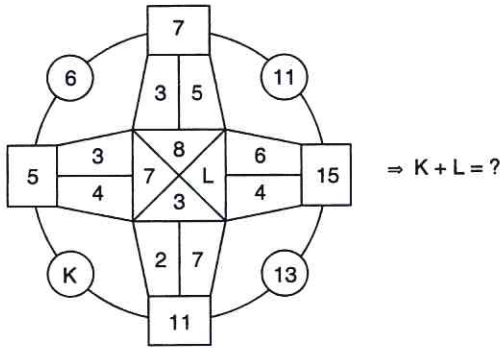
A) (21, 49) B) (12, 49) C) (21, 94)
D) (12, 48) E) (15, 48)

1.



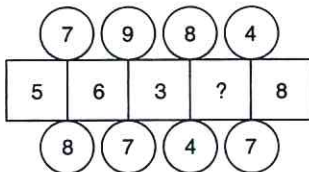
- A) 32 B) 31 C) 30 D) 29 E) 28

2.



- A) 16 B) 17 C) 18 D) 19 E) 20

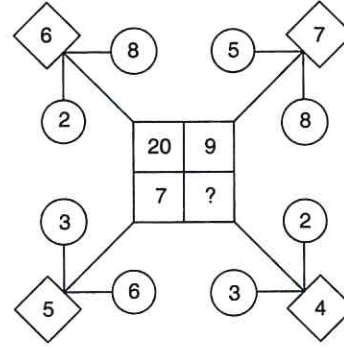
3.



- A) 1 B) 2 C) 3 D) 4

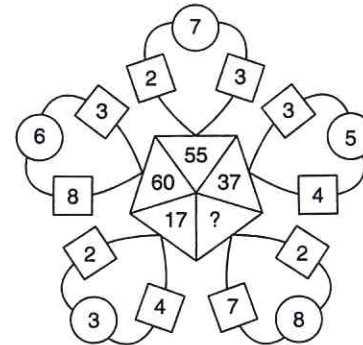
E) 5

4.



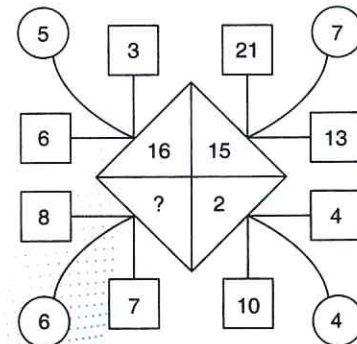
- A) 7 B) 8 C) 9 D) 10 E) 11

5.



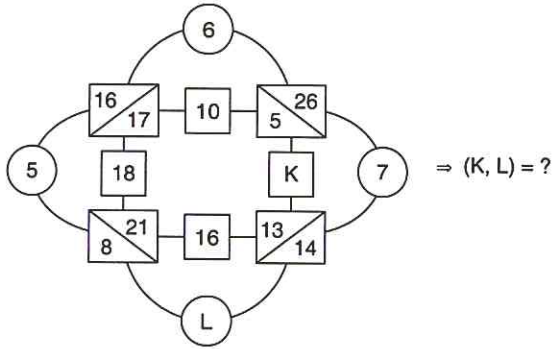
- A) 76 B) 77 C) 78 D) 79 E) 80

6.



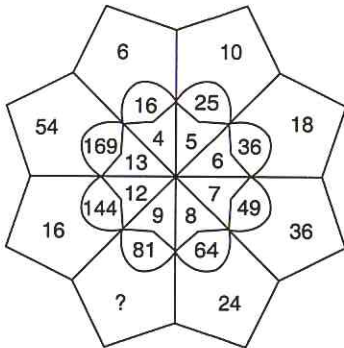
- A) 17 B) 18 C) 19 D) 20 E) 21

7.



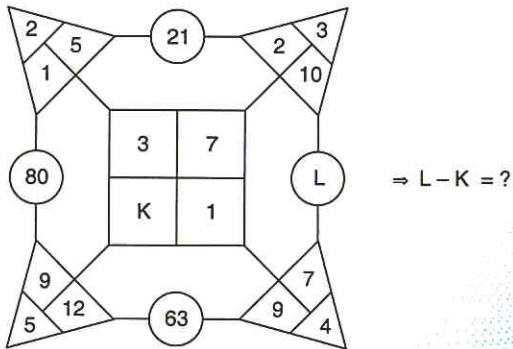
- A) (7, 5) B) (9, 3) C) (8, 3)
D) (9, 4) E) (8, 4)

8.



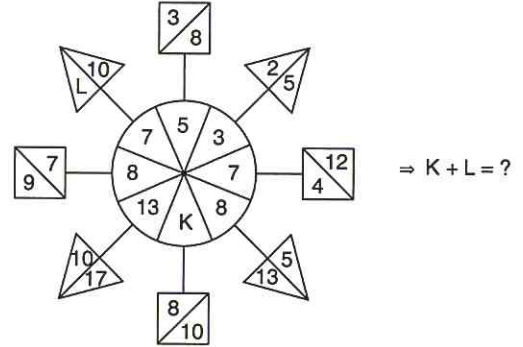
- A) 8 B) 9 C) 12 D) 18 E) 36

9.



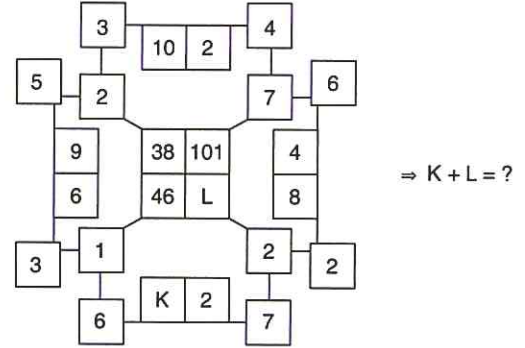
- A) 31 B) 32 C) 33 D) 34 E) 35

10.



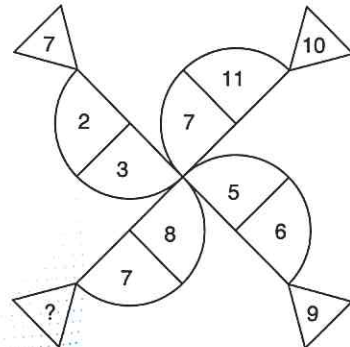
- A) 13 B) 14 C) 15 D) 16 E) 17

11.



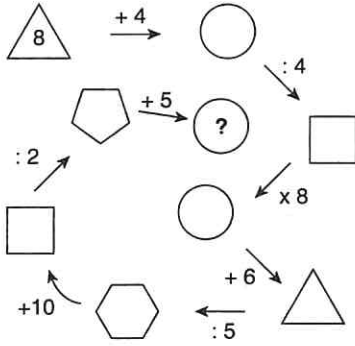
- A) 97 B) 98 C) 99 D) 100 E) 101

12.



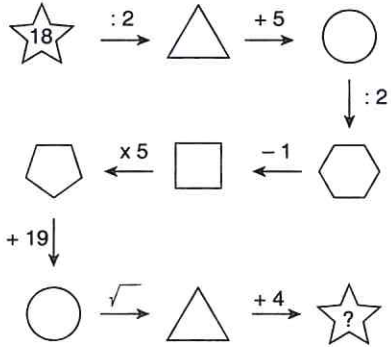
- A) 15 B) 16 C) 17 D) 18 E) 19

1.



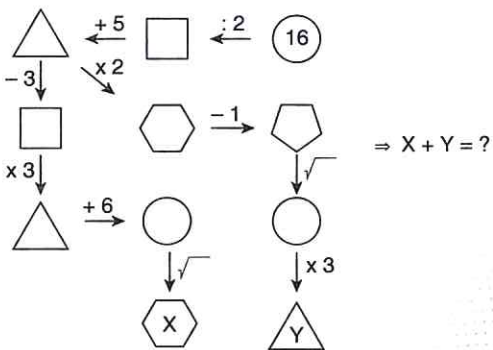
- A) 10 B) 11 C) 12 D) 13 E) 14

2.



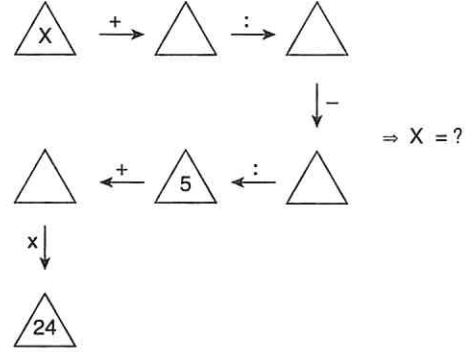
- A) 9 B) 10 C) 11 D) 12 E) 13

3.



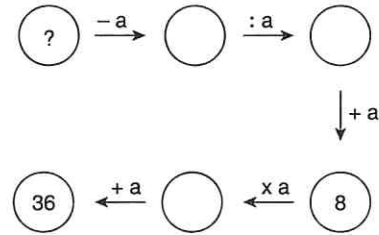
- A) 20 B) 21 C) 22 D) 23 E) 24

4.



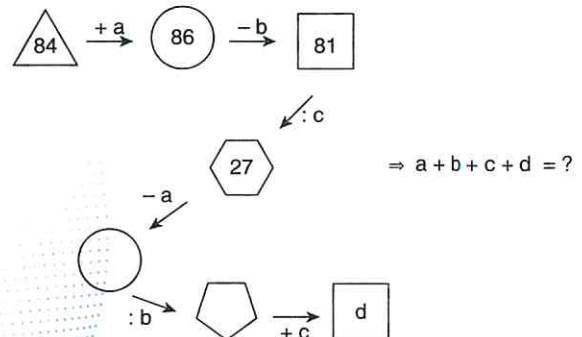
- A) 48 B) 51 C) 54 D) 55 E) 57

5.



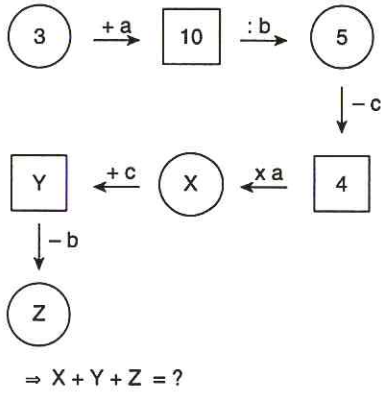
- A) 16 B) 18 C) 20 D) 22 E) 24

6.



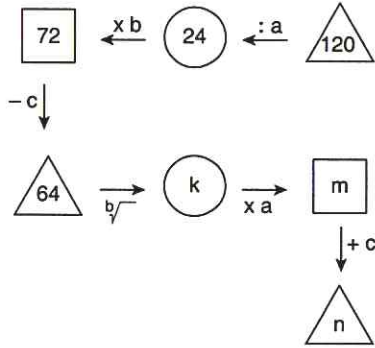
- A) 14 B) 15 C) 16 D) 17 E) 18

7.



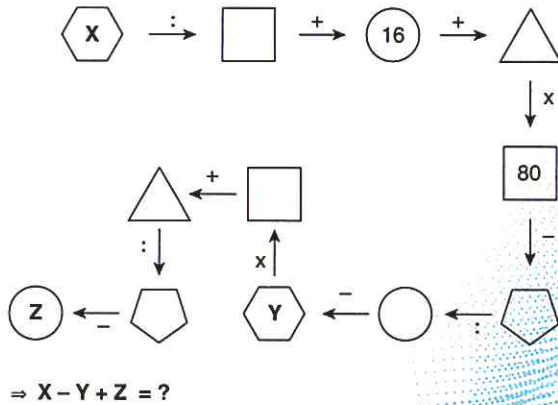
- A) 82 B) 83 C) 84 D) 85 E) 86

8.



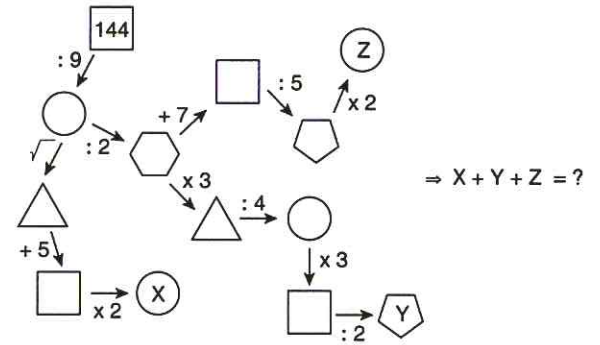
- A) $\frac{14}{5}$ B) $\frac{13}{4}$ C) $\frac{13}{3}$ D) $\frac{7}{2}$ E) $\frac{21}{8}$

9.



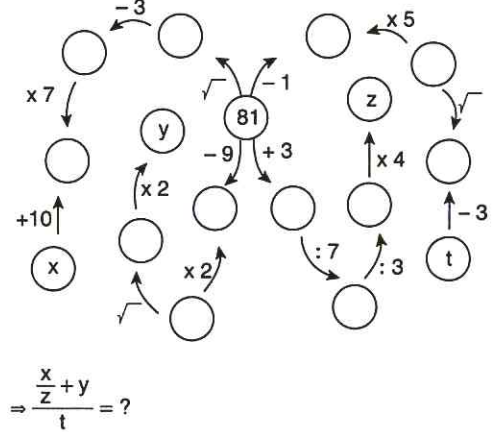
- A) 41 B) 42 C) 43 D) 44 E) 45

10.



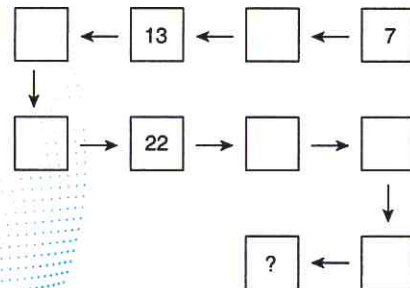
- A) 31 B) 32 C) 33 D) 34 E) 35

11.



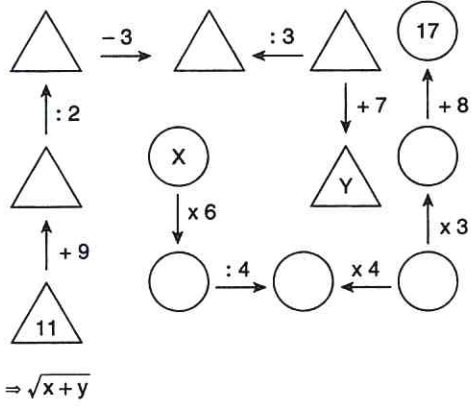
- A) 1 B) 2 C) 3 D) 4 E) 5

12.



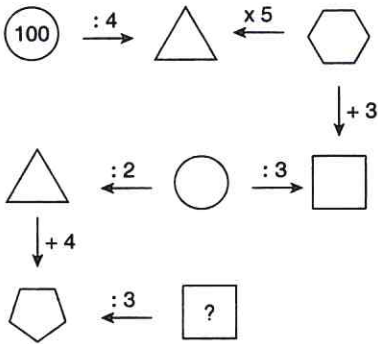
- A) 32 B) 33 C) 34 D) 35 E) 36

1.



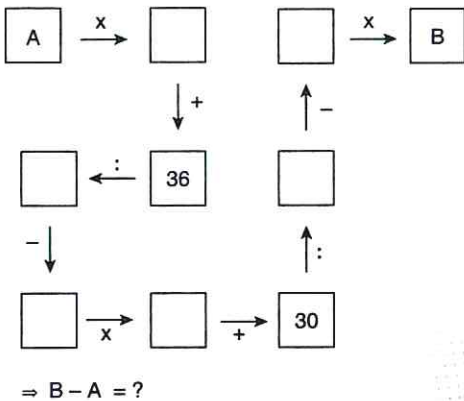
A) 3 B) 4 C) 5 D) 6 E) 7

2.



A) 36 B) 39 C) 42 D) 45 E) 48

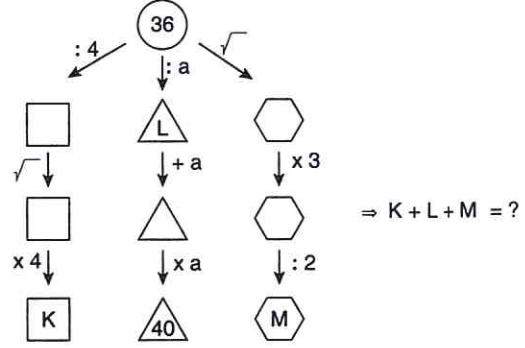
3.



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

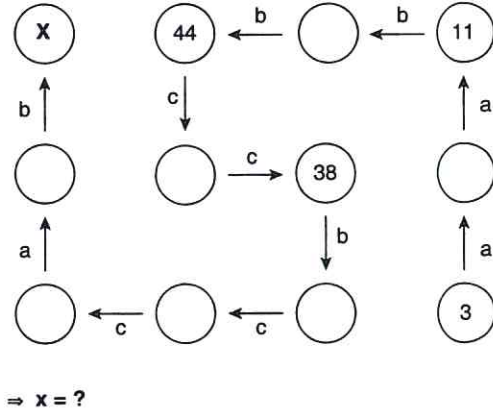
E) 13

4.



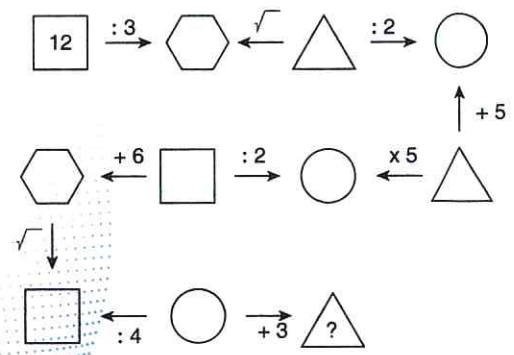
A) 35 B) 36 C) 37 D) 38 E) 39

5.



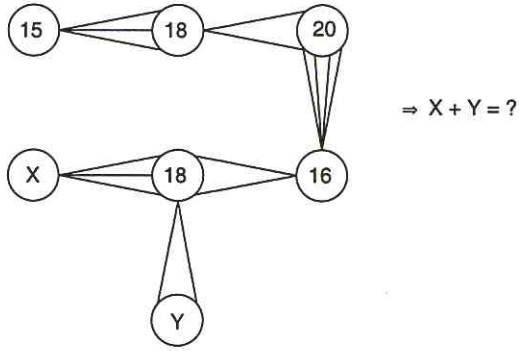
A) 140 B) 142 C) 144 D) 146 E) 148

6.



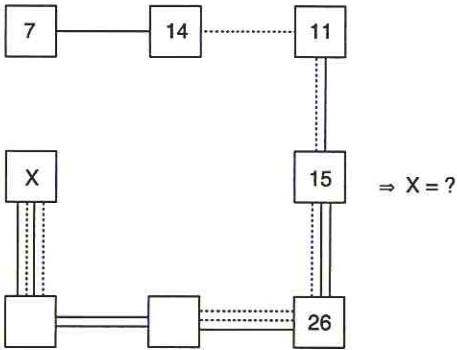
A) 24 B) 25 C) 26 D) 27 E) 28

7.



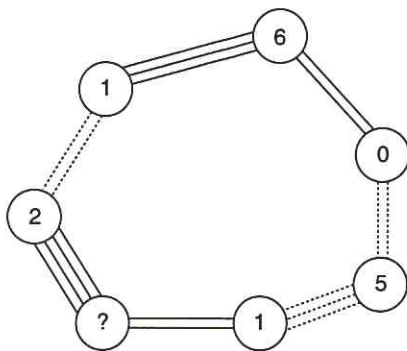
- A) 32 B) 33 C) 34 D) 35 E) 36

8.



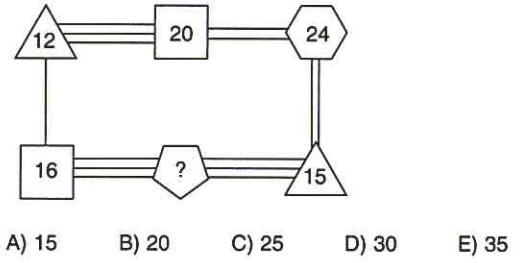
- A) 48 B) 49 C) 50 D) 51 E) 52

9.

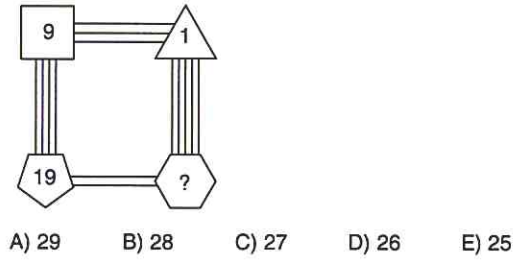


- A) 2 B) 4 C) 6 D) 8 E) 10

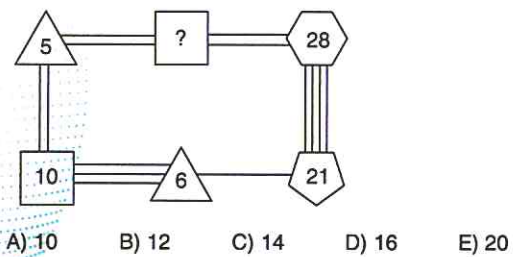
10.



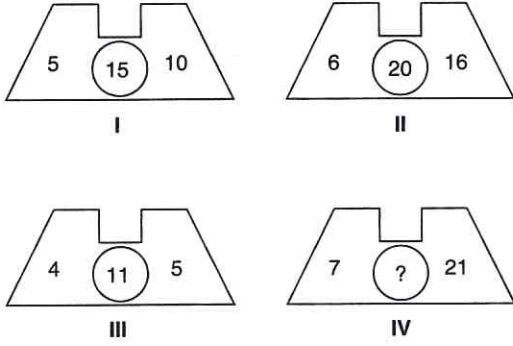
11.



12.

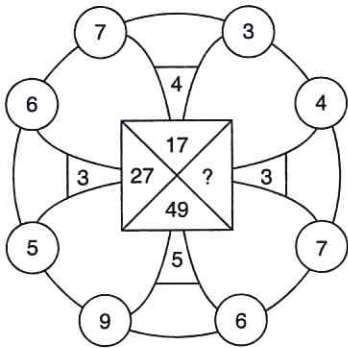


1.



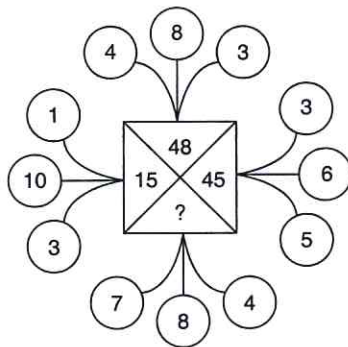
A) 25 B) 26 C) 27 D) 28 E) 29

2.



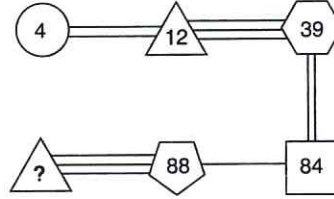
A) 22 B) 23 C) 24 D) 25 E) 26

3.



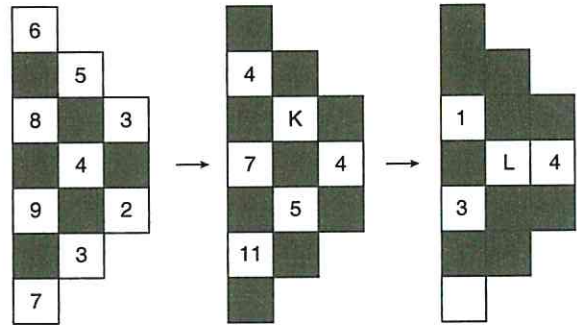
A) 56 B) 64 C) 98 D) 110 E) 112

4.



A) 261 B) 269 C) 323 D) 420 E) 438

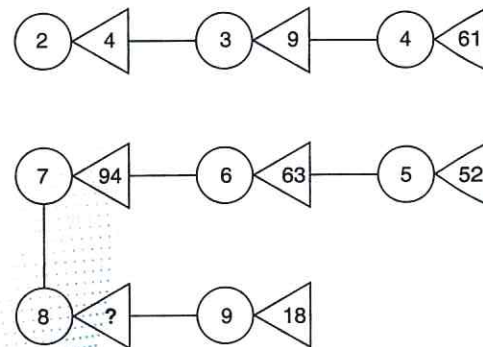
5.



$\Rightarrow K + L = ?$

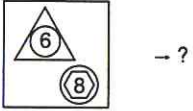
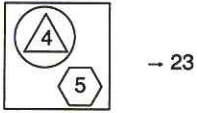
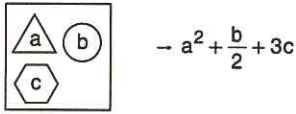
A) 10 B) 11 C) 12 D) 13 E) 14

6.



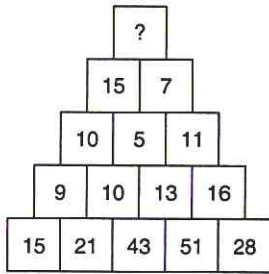
A) 32 B) 46 C) 52 D) 58 E) 64

7.



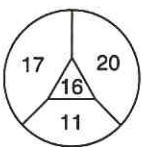
- A) 15 B) 18 C) 21 D) 25 E) 29

8.

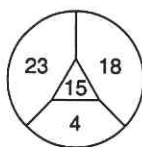


- A) 13 B) 14 C) 15 D) 16 E) 17

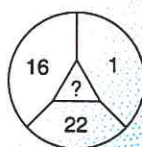
9.



I



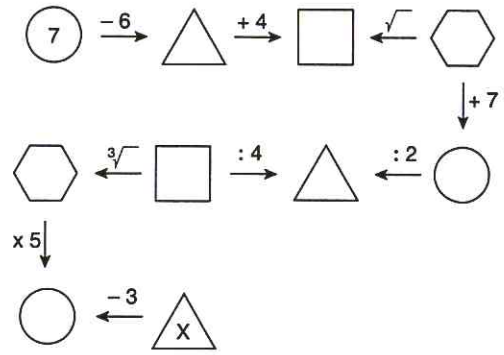
II



III

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

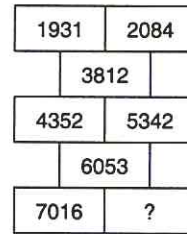
10.



⇒ X = ?

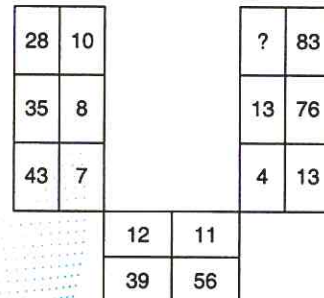
- A) 17 B) 19 C) 20 D) 22 E) 23

11.



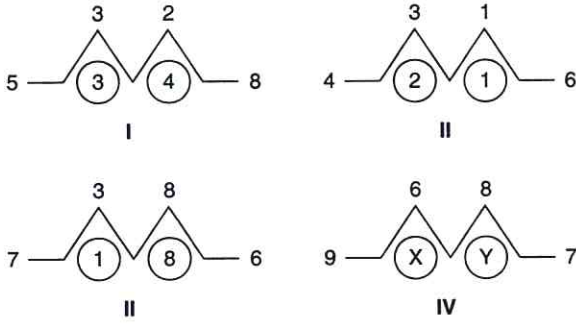
- A) 8325 B) 8313 C) 8312
D) 8296 E) 8275

12.



- A) 9 B) 10 C) 11 D) 12 E) 13

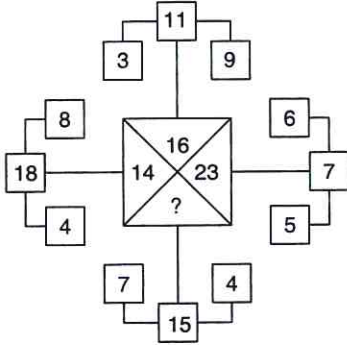
1.



$$\Rightarrow X + Y = ?$$

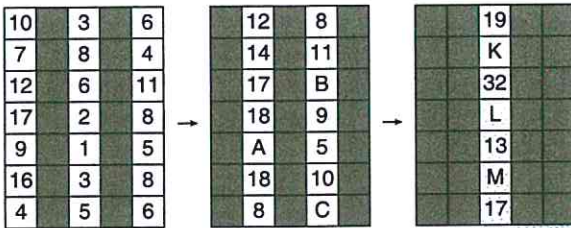
- A) 6 B) 7 C) 8 D) 9 E) 10

2.



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

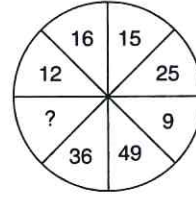
3.



$$\Rightarrow (K + L + M) - (A + B + C)$$

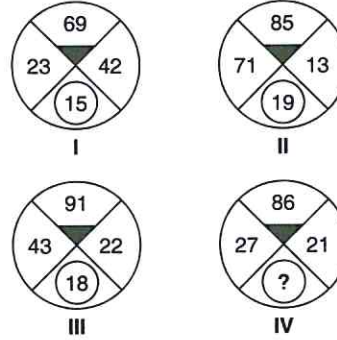
- A) 41 B) 42 C) 43 D) 44 E) 45

4.



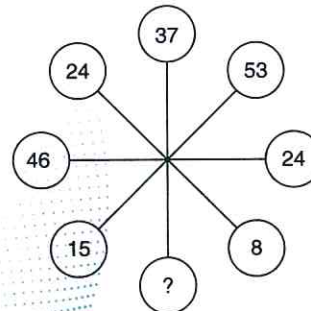
- A) 13 B) 16 C) 28 D) 49 E) 64

5.



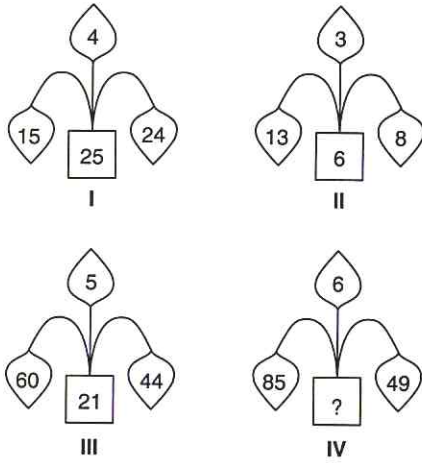
- A) 12 B) 13 C) 14 D) 16 E) 17

6.



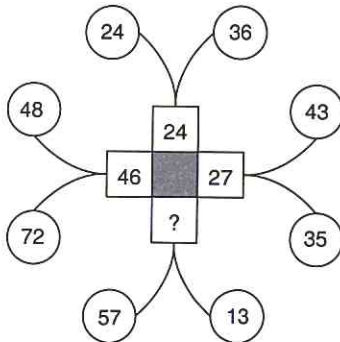
- A) 17 B) 18 C) 19 D) 20 E) 21

7.



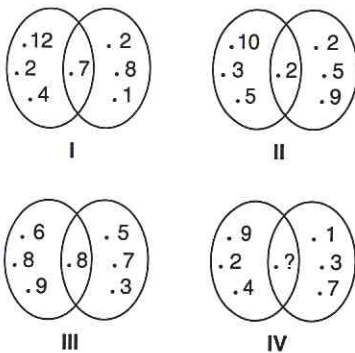
- A) 78 B) 79 C) 80 D) 81 E) 82

8.



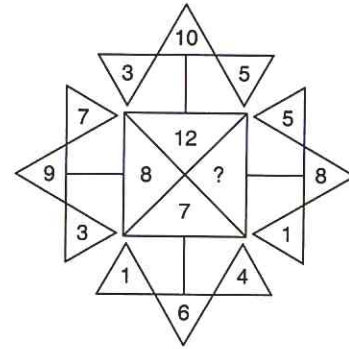
- A) 38 B) 41 C) 44 D) 47 E) 49

9.



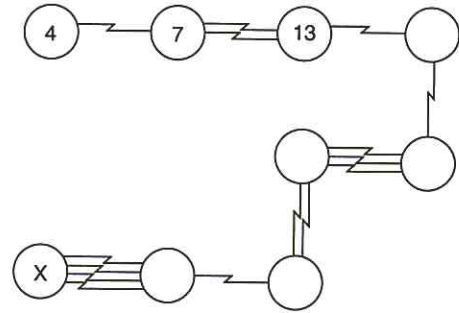
- A) 4 B) 5 C) 6 D) 7 E) 8

10.



- A) 8 B) 9 C) 10 D) 11 E) 13

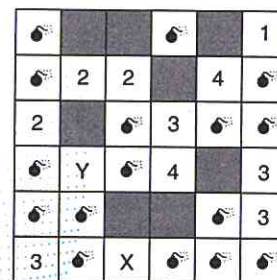
11.



$\Rightarrow X = ?$

- A) 37 B) 40 C) 46 D) 49 E) 51

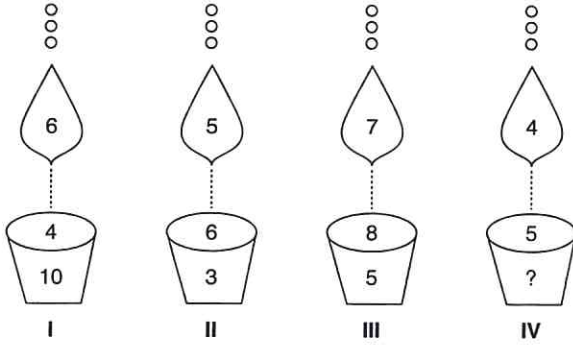
12.



$\Rightarrow X + Y = ?$

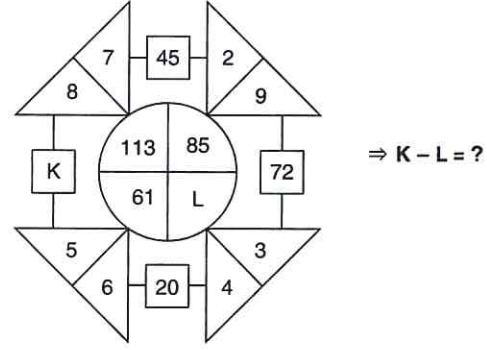
- A) 5 B) 6 C) 7 D) 8 E) 9

1.



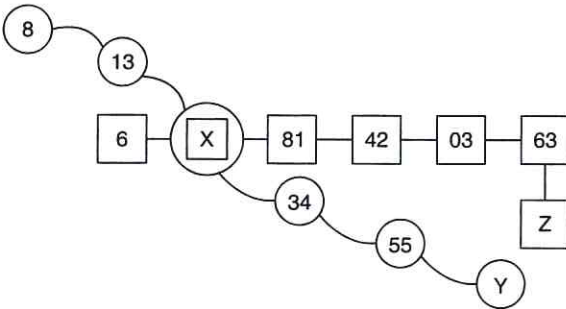
- A) 2 B) 3 C) 4 D) 5 E) 6

4.



- A) 13 B) 14 C) 15 D) 16 E) 17

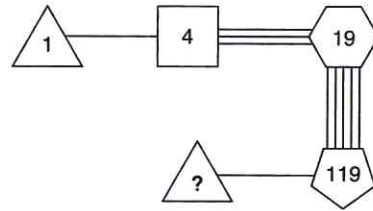
2.



⇒ Y - (X + Z) = ?

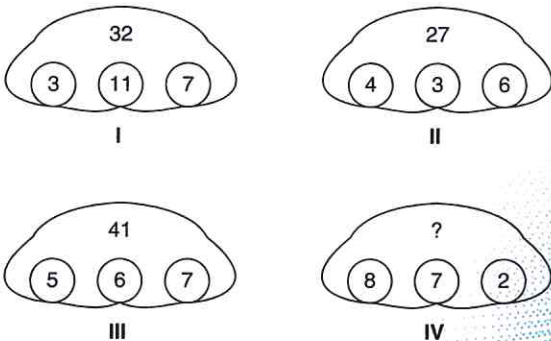
- A) 44 B) 45 C) 46 D) 47 E) 48

5.



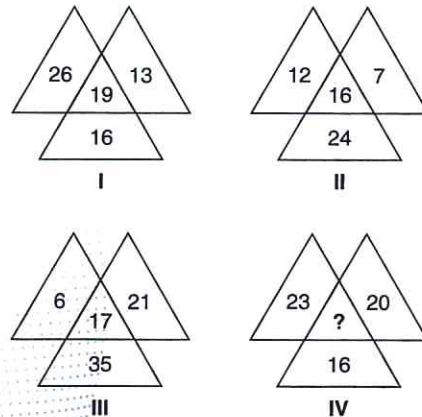
- A) 120 B) 374 C) 595 D) 596 E) 738

3.



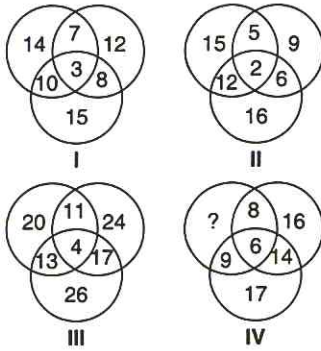
- A) 23 B) 25 C) 29 D) 33 E) 36

6.



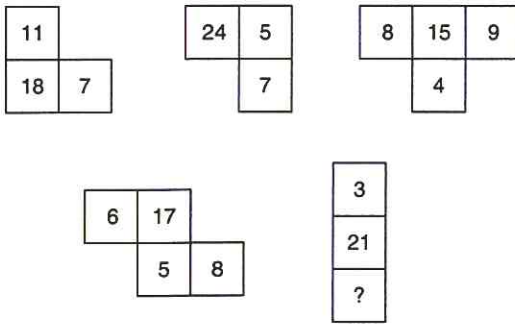
- A) 12 B) 13 C) 14 D) 15 E) 18

7.



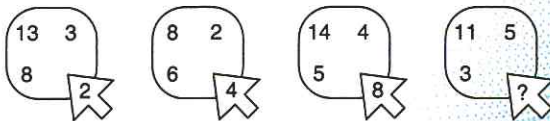
- A) 11 B) 12 C) 13 D) 14 E) 15

8.



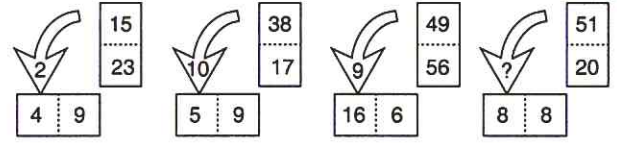
- A) 10 B) 11 C) 12 D) 13 E) 14

9.



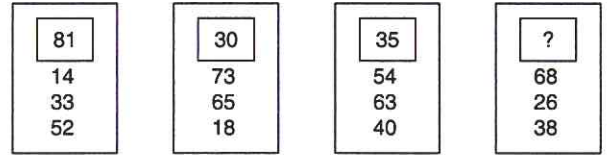
- A) 6 B) 7 C) 8 D) 9 E) 10

10.



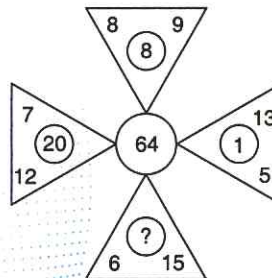
- A) 3 B) 5 C) 7 D) 9 E) 11

11.



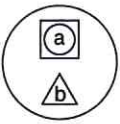
- A) 6 B) 12 C) 18 D) 24 E) 32

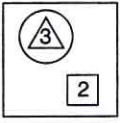
12.

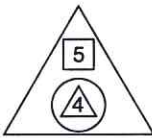


- A) 16 B) 18 C) 22 D) 26 E) 28

1.

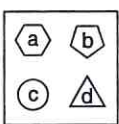
I.  $\equiv 2((2a)^2 + 3b)$

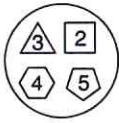
II.  $\equiv 484$

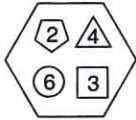
III.  $\equiv ?$

A) 138 B) 141 C) 144 D) 147 E) 150

3.

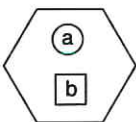
I.  $\equiv 4(6a + 5b + 2c + 3d)$

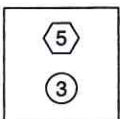
II.  $\equiv 132$

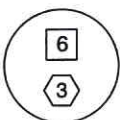
III.  $\equiv ?$

A) 276 B) 282 C) 288 D) 294 E) 300

2.

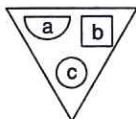
I.  $\equiv 6(2a + 4b)$

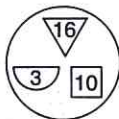
II.  $\equiv 144$

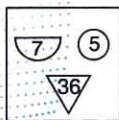
III.  $\equiv ?$

A) 76 B) 78 C) 80 D) 82 E) 84

4.

I.  $\equiv \sqrt{a^2 + \frac{b}{2} + 3c}$

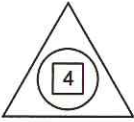
II.  $\equiv 54$

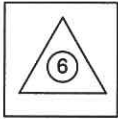
III.  $\equiv ?$

A) 34 B) 35 C) 36 D) 37 E) 38

5.

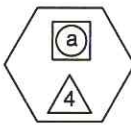
I.  $\equiv \frac{(3a)^2}{2}$

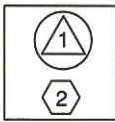
II.  $\equiv 24$

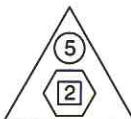
III.  $\equiv ?$

- A) 36 B) 49 C) 64 D) 81 E) 100

7.

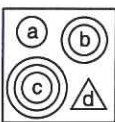
I.  $\equiv 6(2a^2 + 3b)$

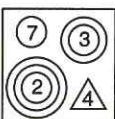
II.  $\equiv 42$

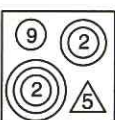
III.  $\equiv ?$

- A) 147 B) 150 C) 153 D) 156 E) 159

6.

I.  $\equiv a^2 + b^4 + c^6 + d^3$

II.  $\equiv 258$

III.  $\equiv ?$

- A) 285 B) 286 C) 287 D) 288 E) 289

8.

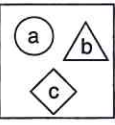
I.  $\equiv 3 \cdot 3 \cdot a + 6 \cdot 4 \cdot b + 5c$

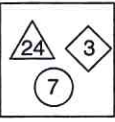
II.  $\equiv 121$

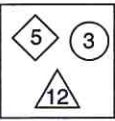
III.  $\equiv ?$

- A) 152 B) 153 C) 154 D) 155 E) 156

1.

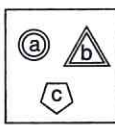
I.  $\equiv a^2 + \frac{b}{3} + 4c$

II.  $\equiv 69$

III.  $\equiv ?$

A) 36 B) 35 C) 34 D) 33 E) 32

3.

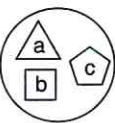
I.  $\equiv 2 \cdot \left(a^4 + 9b + \frac{c}{2} \right)$

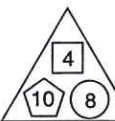
II.  $\equiv 63$

III.  $\equiv ?$

A) 27 B) 28 C) 29 D) 30 E) 31

2.

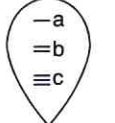
I.  $\equiv \frac{3a + \frac{c}{2} + b^2}{4}$

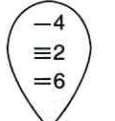
II.  $\equiv 69$

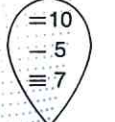
III.  $\equiv ?$

A) 96 B) 98 C) 100 D) 102 E) 104

4.

I.  $\equiv a^2 + \frac{b}{2} + 3c$

II.  $\equiv 25$

III.  $\equiv ?$

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

5.

I.

a	b
c	d
e	f

 $\equiv 4a + 2b - c + d^2 - \frac{e}{2} + \frac{f}{3}$

II.

2	
	5
	12

 $\equiv 37$

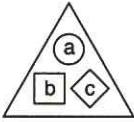
III.

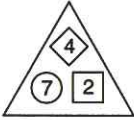
	6
7	
	9

 $\equiv ?$

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

7.

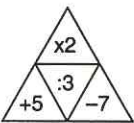
I.  $\equiv \frac{2a + 4b + c^2}{2}$

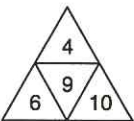
II.  $\equiv 19$

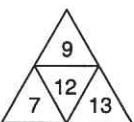
III.  $\equiv ?$

A) 9 B) 18 C) 27 D) 36 E) 45

6.

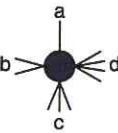
I. 

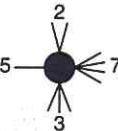
II.  $\equiv 25$

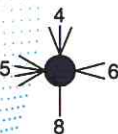
III.  $\equiv ?$

A) 36 B) 37 C) 38 D) 39 E) 40

8.

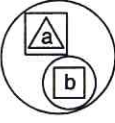
I.  $\equiv a + 2b + 3c + 4d$

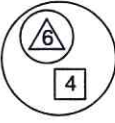
II.  $\equiv 46$

III.  $\equiv ?$

A) 51 B) 52 C) 53 D) 54 E) 55

1.

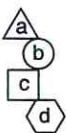
I.  $\equiv \left(\frac{a}{6} + \left(\frac{b}{2}\right)^2\right)^2$

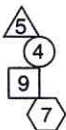
II.  $\equiv 36$

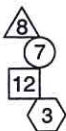
III.  $\equiv ?$

A) 256 B) 289 C) 324 D) 361 E) 400

2.

I.  $\equiv a + 3 + 2b + \frac{c}{3} + d - 2$

II.  $\equiv 24$

III.  $\equiv ?$

A) 29 B) 30 C) 31 D) 32 E) 33

3.

I.  $\equiv \frac{b^2}{a+c}$

II.  $\equiv 8$

III.  $\equiv ?$

A) 13 B) 14 C) 15 D) 16 E) 17

4.

I.  $\equiv a3462$

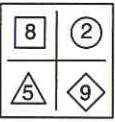
II.  +  $\equiv 5957$

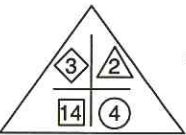
III.  -  $\equiv ?$

A) 893 B) 883 C) 983 D) 993 E) 1993

5.

I.  $\equiv 3 \cdot \left(3a + 2b + \frac{c}{2} + \frac{d}{3} \right)$

II.  $\equiv \frac{23}{2}$

III.  $\equiv ?$

- A) 24 B) 28 C) 36 D) 44 E) 48

6.

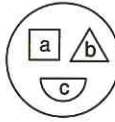
I. $\textcircled{a} \equiv a^2$
 $\textcircled{\textcircled{a}} \equiv a^4$

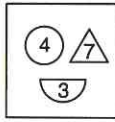
II. $\textcircled{4} + \textcircled{\textcircled{3}} \equiv 97$

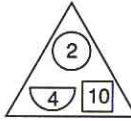
III. $\textcircled{\textcircled{2}} + \textcircled{5} + \textcircled{7} \equiv ?$

- A) 90 B) 91 C) 92 D) 93 E) 94

7.

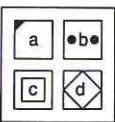
I.  $\equiv 2 \cdot \left(\frac{a}{2} + 3b + c^2 \right)$

II.  $\equiv 19$

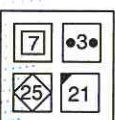
III.  $\equiv ?$

- A) 75 B) 72 C) 69 D) 66 E) 63

8.

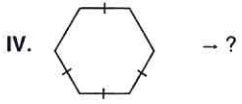
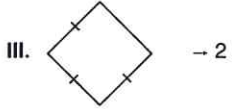
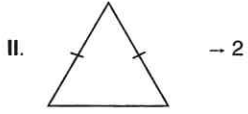
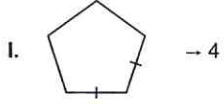
I.  $\equiv \frac{a}{3} + 2b + c^2 + \sqrt{d}$

II.  $\equiv 57$

III.  $\equiv ?$

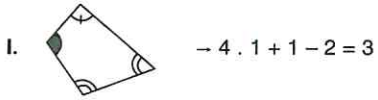
- A) 66 B) 67 C) 68 D) 69 E) 70

1.



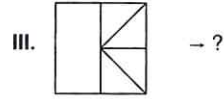
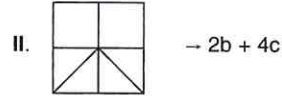
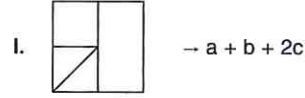
A) 1 B) 2 C) 3 D) 4 E) 5

2.



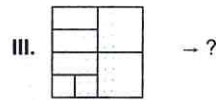
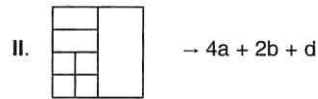
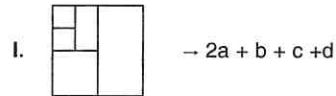
A) 17 B) 18 C) 19 D) 20 E) 21

3.



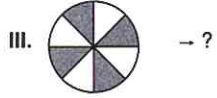
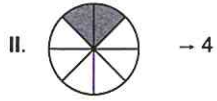
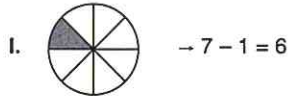
A) a + 4c B) 2b + 2c C) a + 2c
D) a + 3b + c E) a + 3c

4.



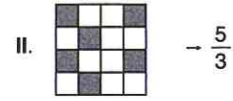
A) 3a + 3b + 2c B) 2a + 3b + c
C) 2a + 2b + c D) 2a + 3b + 2c
E) 2a + 2b + 2c

5.



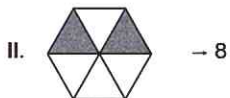
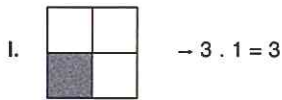
- A) 0 B) 1 C) 2 D) 3 E) 4

7.



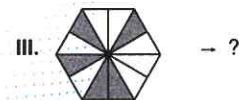
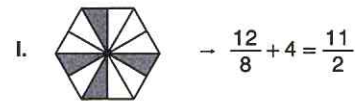
- A) $\frac{12}{5}$ B) $\frac{11}{5}$ C) $\frac{5}{11}$ D) $\frac{13}{5}$ E) $\frac{5}{13}$

6.



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

8.



- A) $\frac{46}{5}$ B) $\frac{47}{12}$ C) $\frac{47}{5}$ D) $\frac{47}{7}$ E) $\frac{46}{7}$

1.

4		1		
	5			4
3				1
	2	5		
			X	

x = ?

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

4.

	2			3
		1		4
3	4			
		5	X	
2			4	

x = ?

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

2.

	4		5	
1				3
5			4	
	2			5
		X		

x = ?

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

5.

	3		1	
		X		
			2	4
		2	3	5
1				

x = ?

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

3.

5		3		4
	2			
4			5	
1	X			
	4			1

x = ?

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

6.

	1	4		
			X	1
		3		2
			3	
1	4	2		

x = ?

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

7.

	2	3		
				X
3			1	
	1		4	
2		5		

x = ?

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

8.

3		4	2	
	3			1
X		2	1	
		1		4
1	4		5	

x = ?

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

9.

5				4
		4	1	
4	3			5
	X			
2			5	1

x = ?

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

10.

2				X
5	1			2
		5	3	
	4			5
4			1	

x = ?

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

11.

3			2	4
	3		1	
X		2		
1		5		
	2		4	

x = ?

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

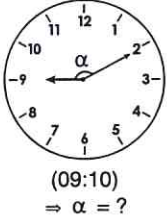
12.

		4		3
	5		2	
	2			1
X				
		1	3	

x = ?

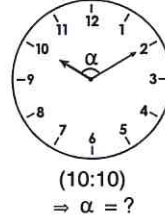
- A) 1 B) 2 C) 3 D) 4 E) 5

1.



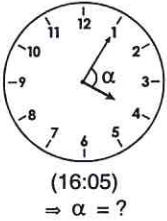
- A) 135 B) 140 C) 145 D) 150 E) 155

5.



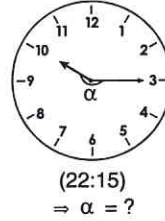
- A) 95 B) 100 C) 105 D) 110 E) 115

2.



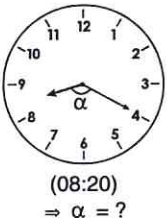
- A) 92 B) 92,5 C) 93 D) 93,5 E) 94

6.



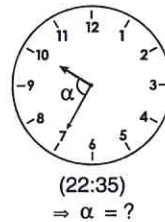
- A) 217 B) 217,5 C) 218 D) 218,5 E) 219

3.



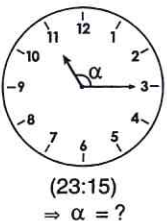
- A) 115 B) 120 C) 125 D) 130 E) 135

7.



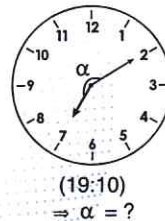
- A) 107,5 B) 108 C) 108,5 D) 109 E) 109,5

4.



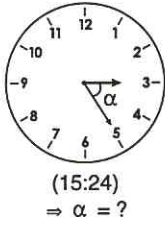
- A) 112,5 B) 113,5 C) 114 D) 114,5 E) 115

8.



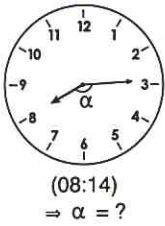
- A) 195 B) 200 C) 205 D) 210 E) 215

9.



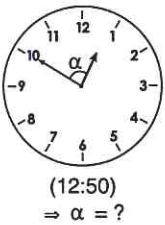
- A) 42 B) 43 C) 44 D) 45 E) 46

10.



- A) 164 B) 163 C) 162 D) 161 E) 160

11.



- A) 80 B) 82 C) 83 D) 85 E) 86

12.



- A) 223 B) 226 C) 229 D) 231 E) 233

13.



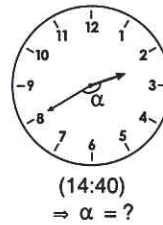
- A) 211 B) 212 C) 213 D) 214 E) 215

14.



- A) 57 B) 58 C) 59 D) 60 E) 61

15.



- A) 150 B) 155 C) 160 D) 165 E) 170

16.



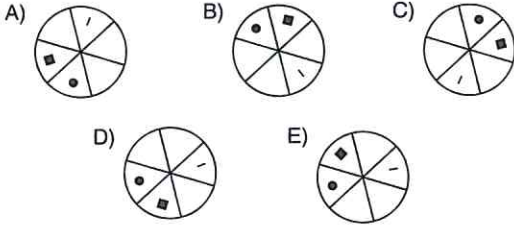
- A) 215,5 B) 216 C) 216,5 D) 217 E) 217,5



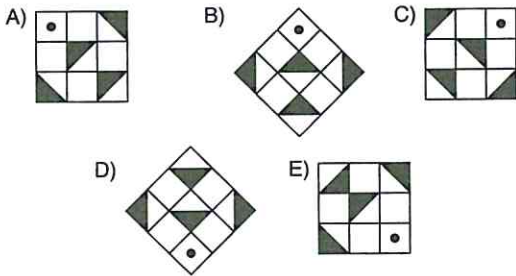
480
SORU
Questions

Hangisi Farklıdır?
Which one is different?

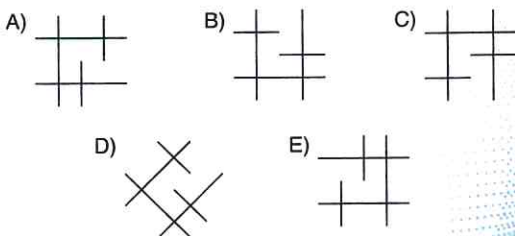
1.



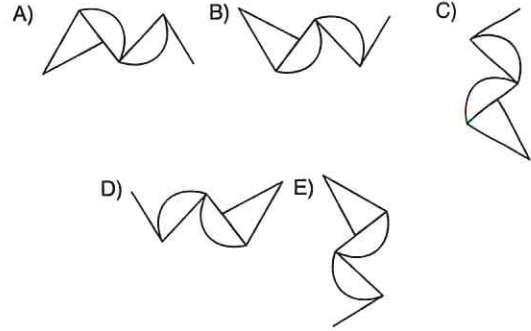
2.



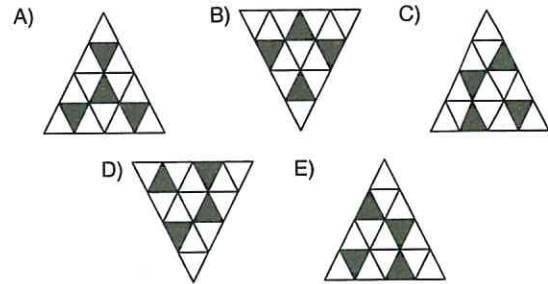
3.



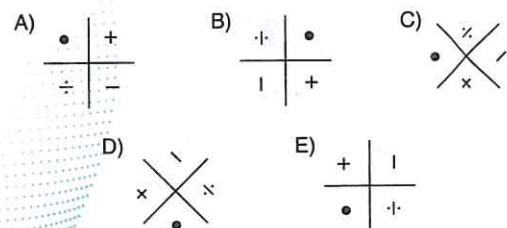
4.



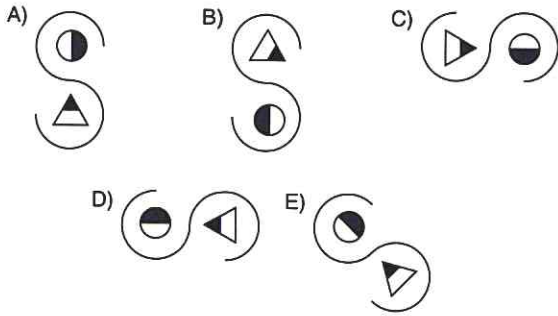
5.



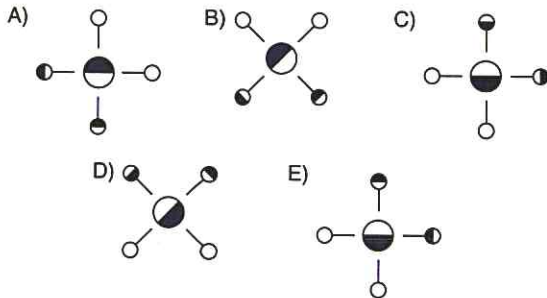
6.



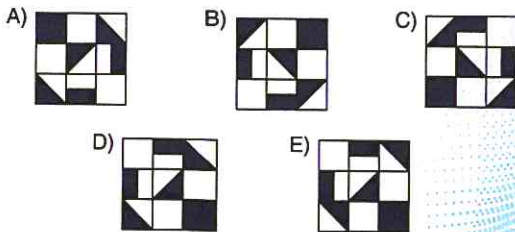
7.



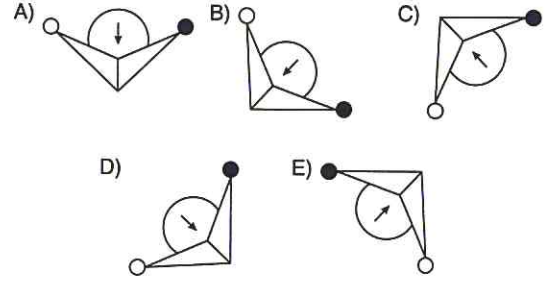
8.



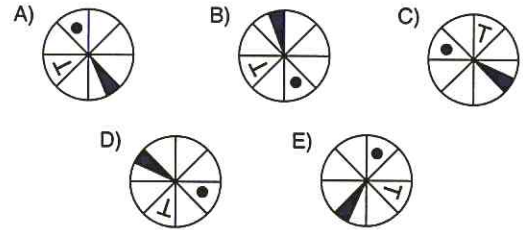
9.



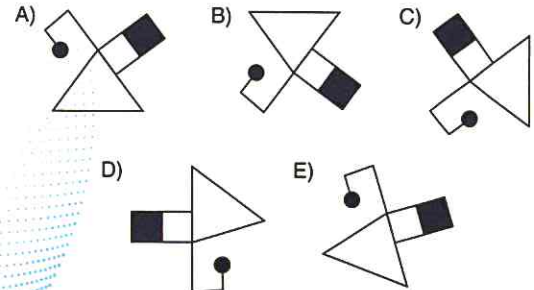
10.



11.

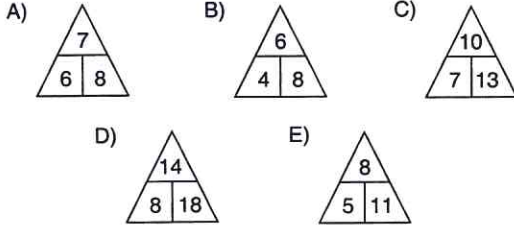


12.

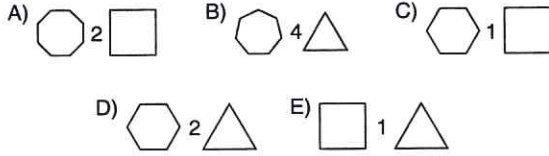


Hangisi Farklıdır?
Which one is different?

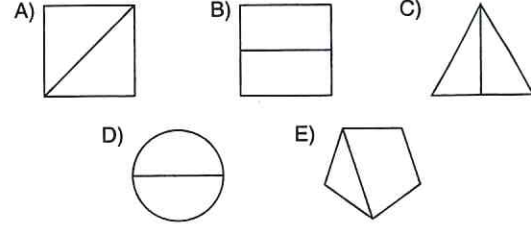
1.



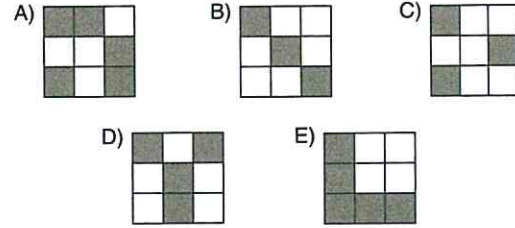
2.



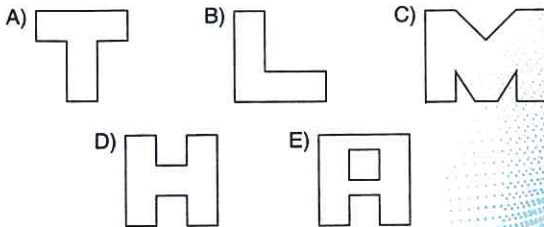
4.



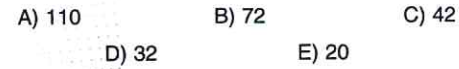
5.



3.



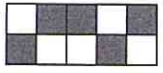
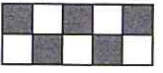
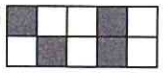
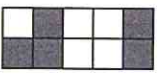
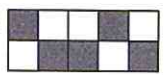
6.

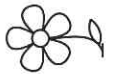


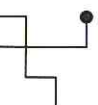
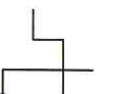
7. A)   
- B)   
- C)   
- D)   
- E)   

8. A)  B)  C) 
- D)  E) 

9. A)  B)  C) 
- D)  E) 

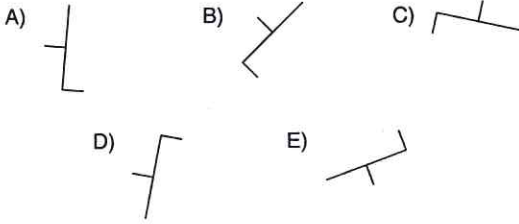
10. A)  B) 
- C)  D) 
- E) 

11. A)  B)  C) 
- D)  E) 

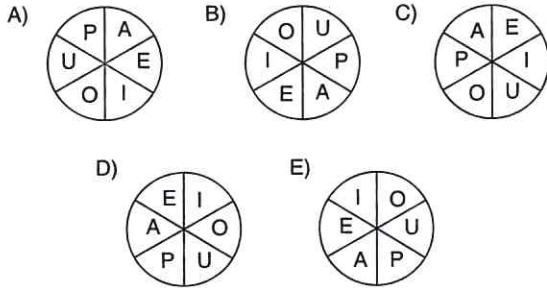
12. A)  B)  C) 
- D)  E) 

Hangisi Farklıdır?
Which one is different?

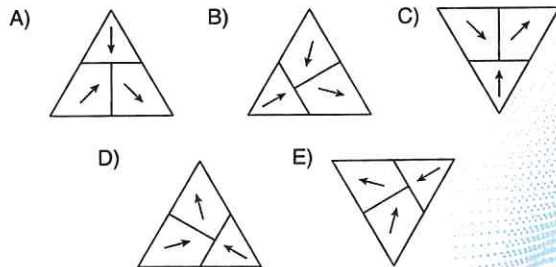
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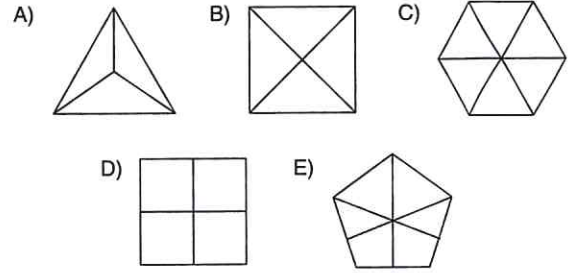
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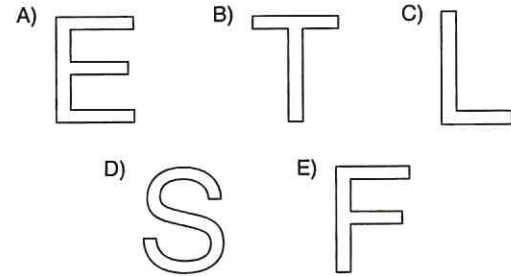
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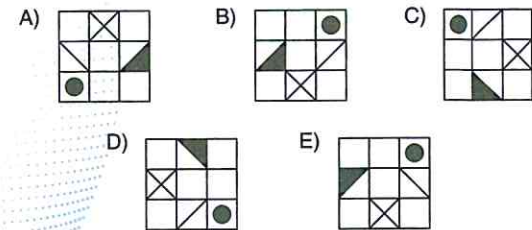
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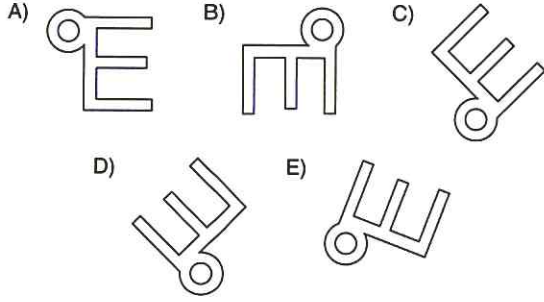
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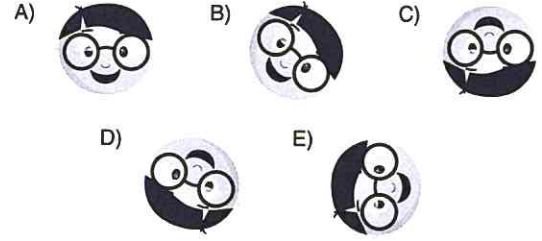
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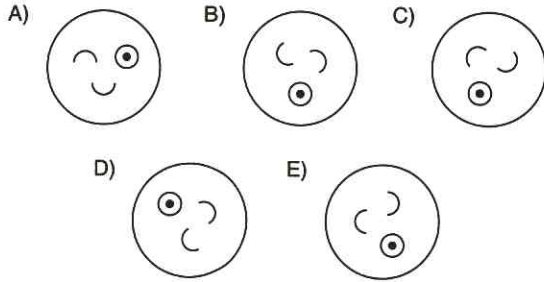
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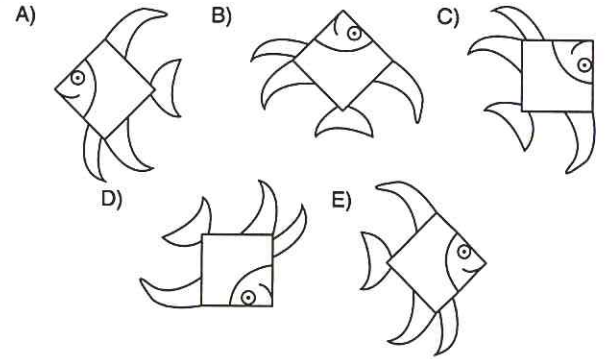
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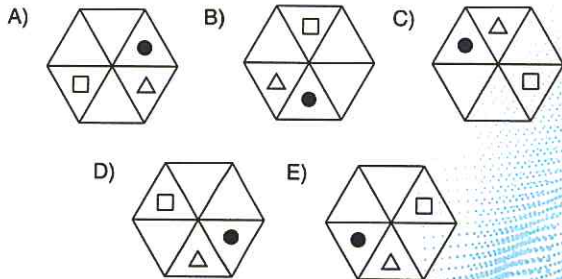
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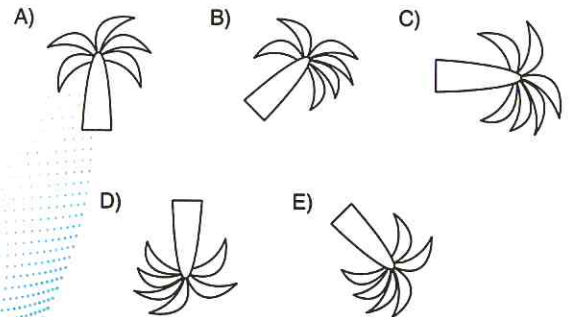
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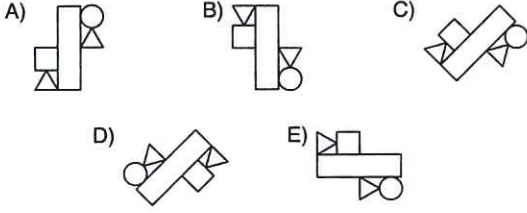


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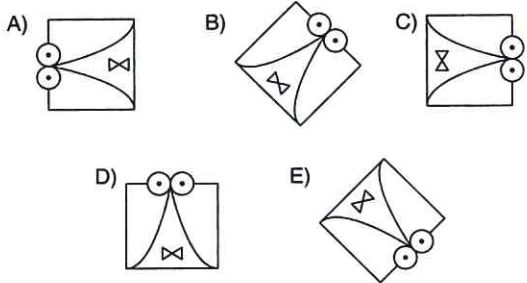


Hangisi Farklıdır?
Which one is different?

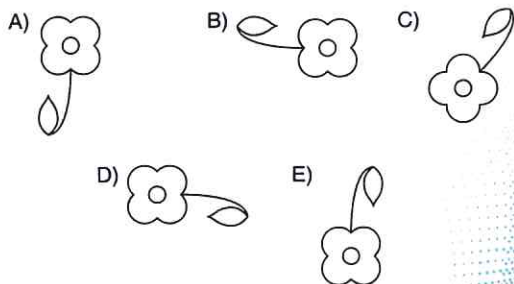
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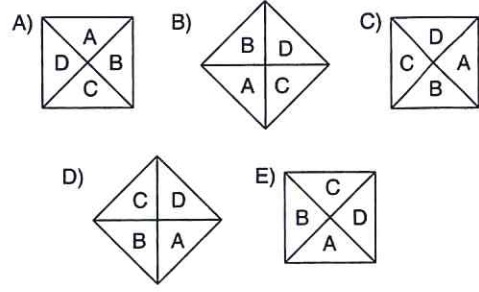
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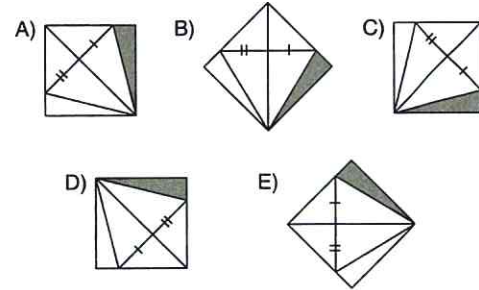
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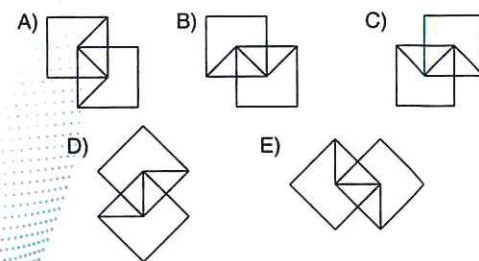
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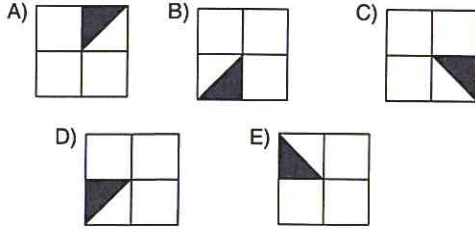
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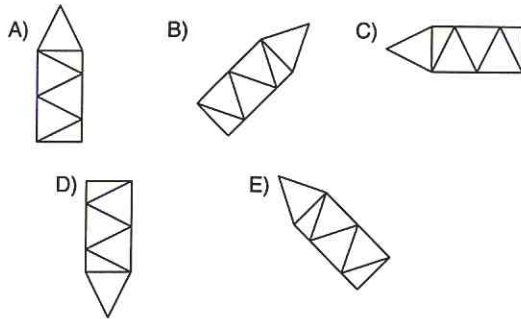
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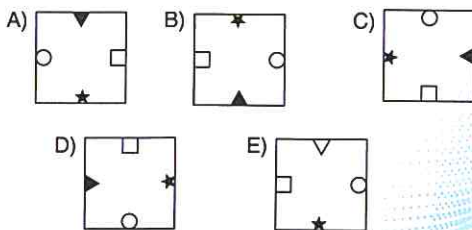
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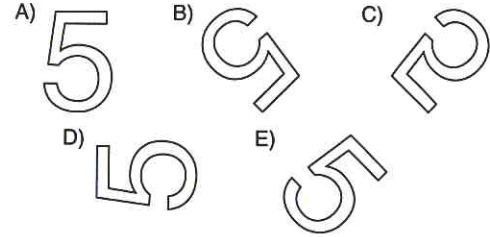
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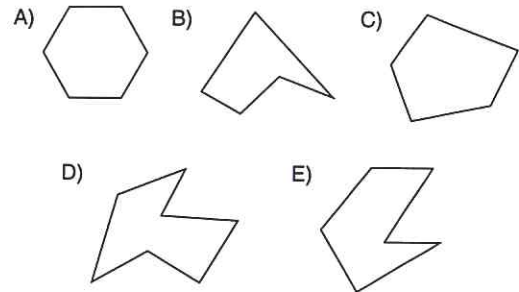
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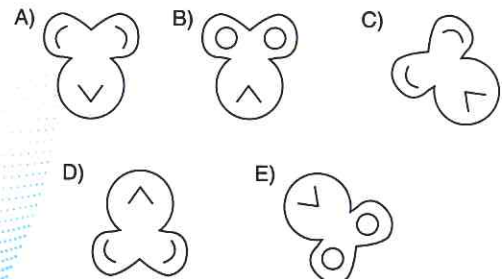
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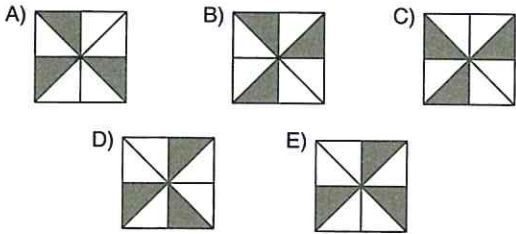
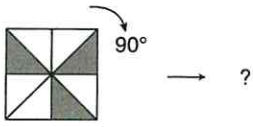
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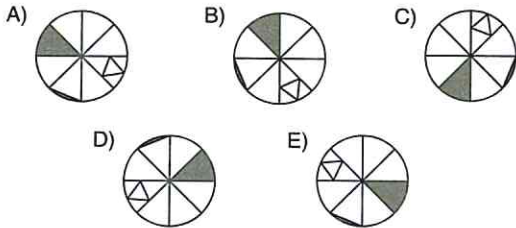
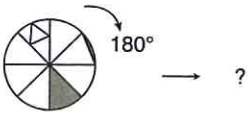
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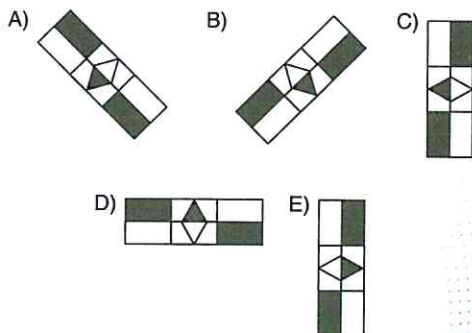
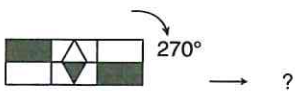
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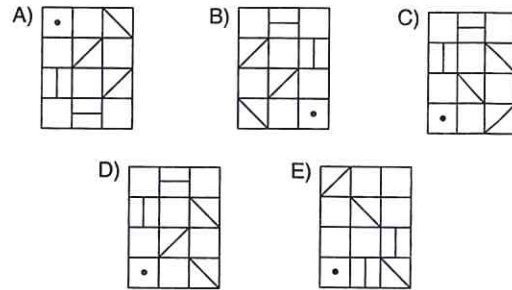
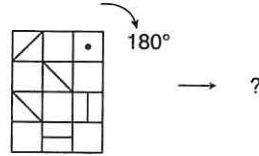
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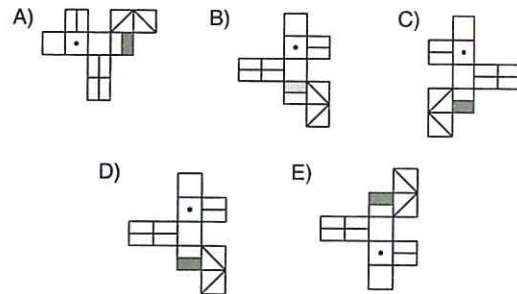
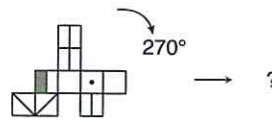
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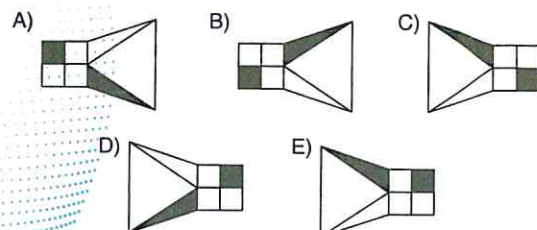
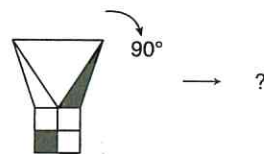
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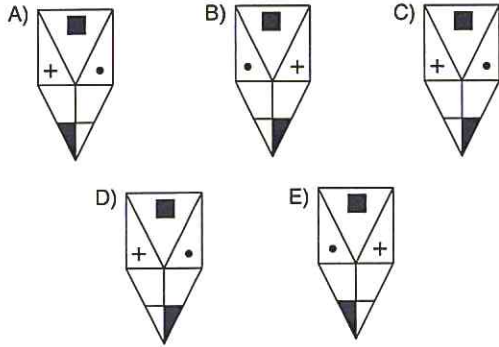
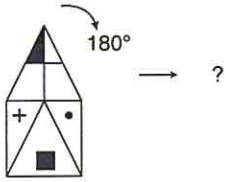
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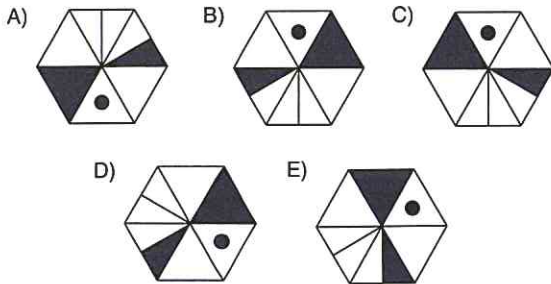
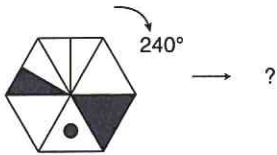
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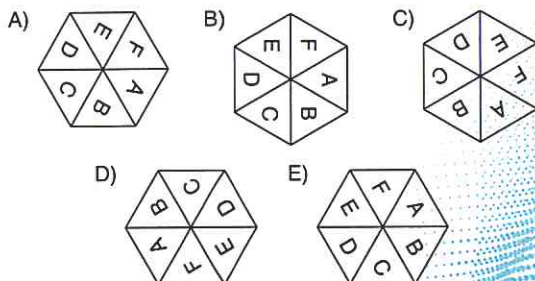
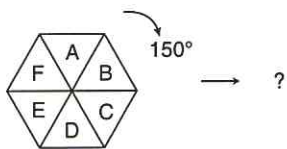
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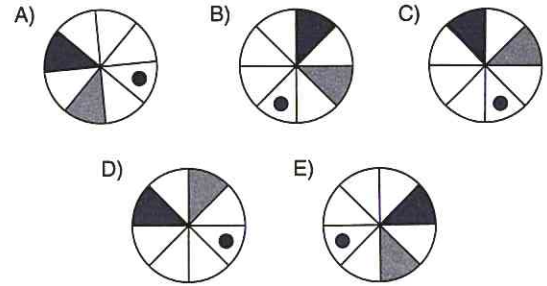
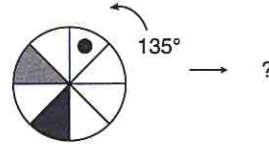
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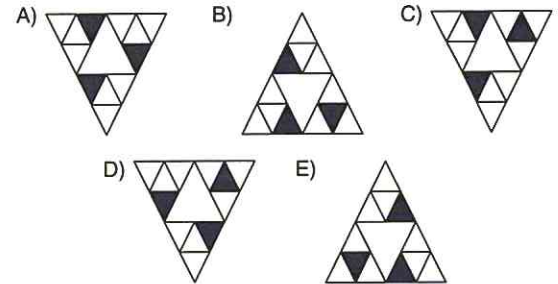
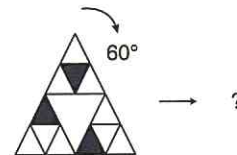
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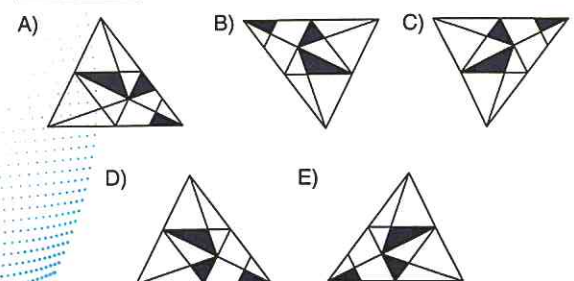
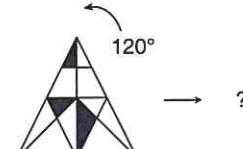
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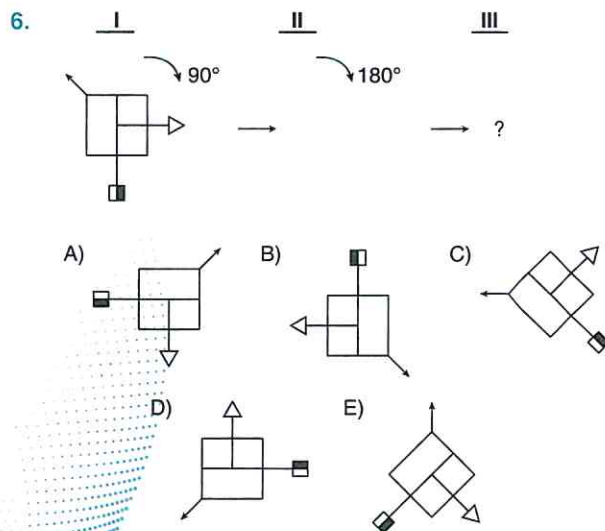
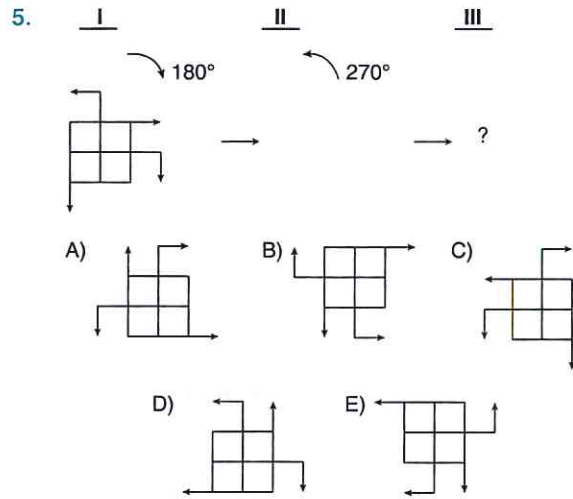
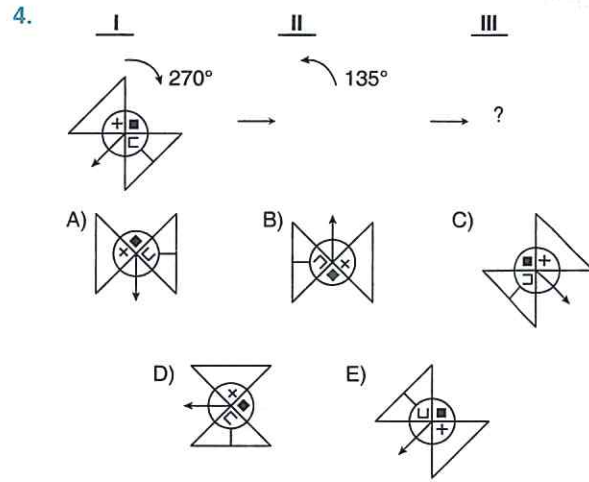
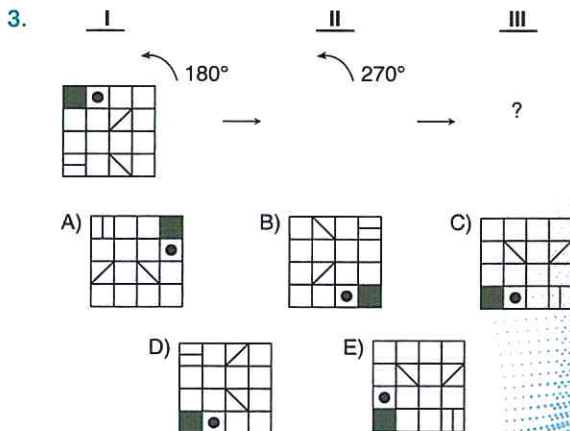
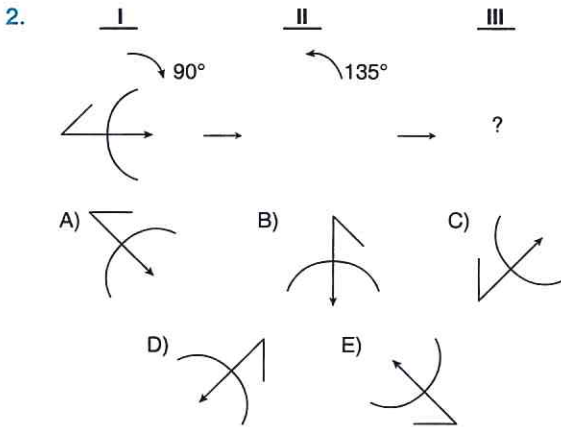
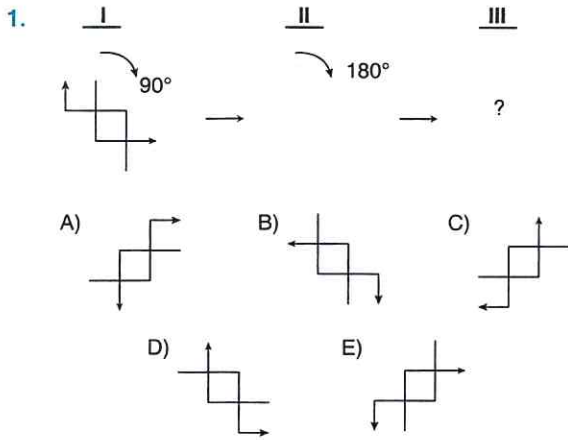


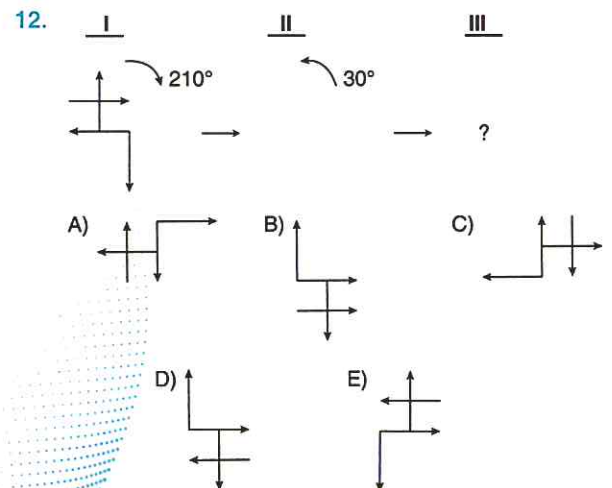
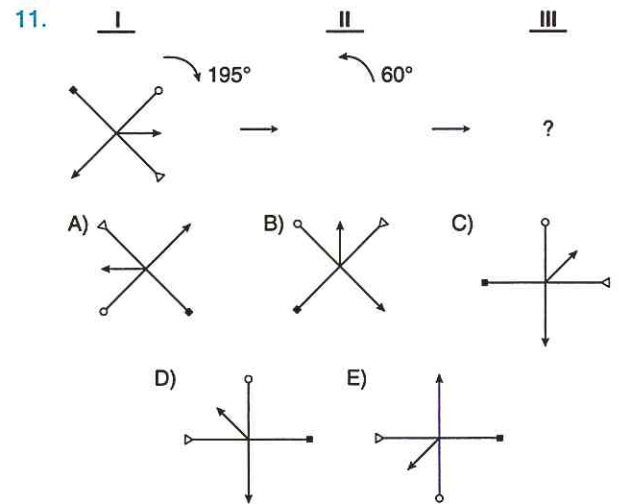
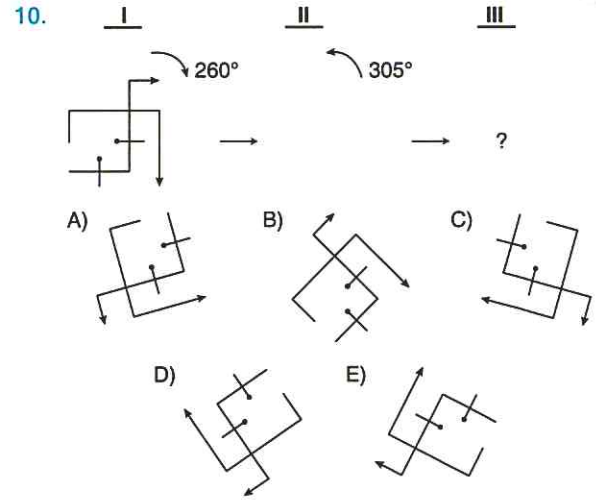
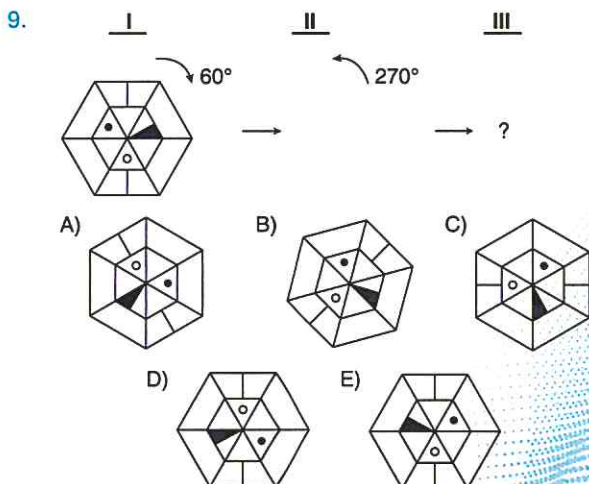
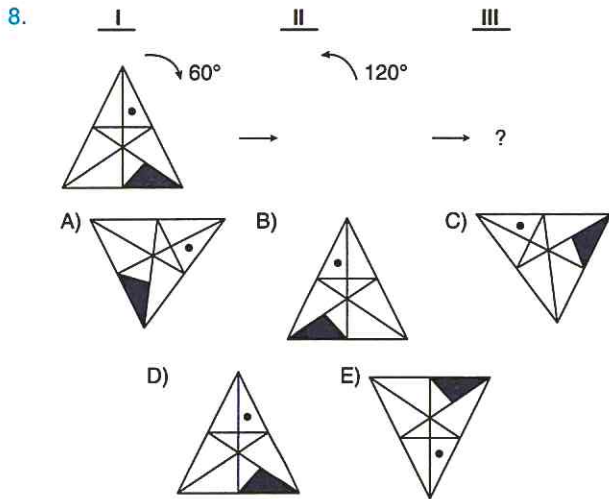
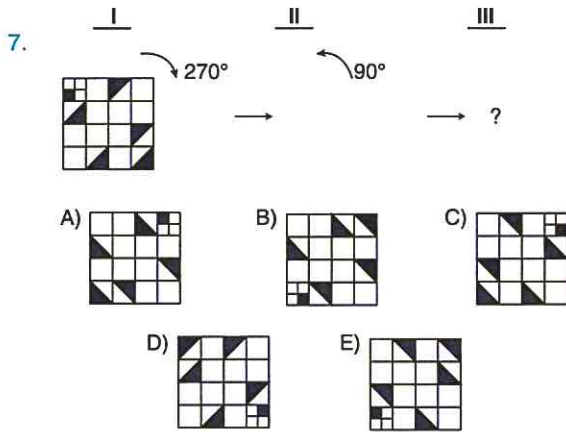
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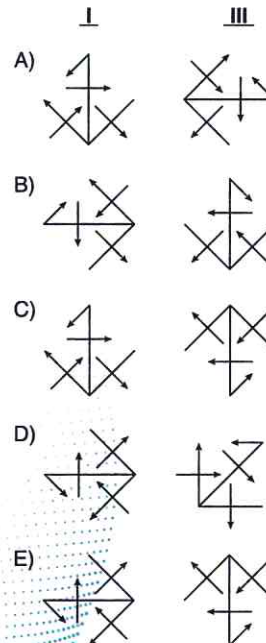
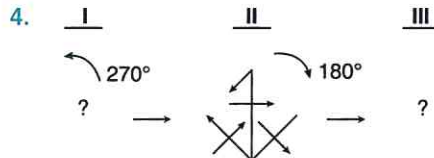
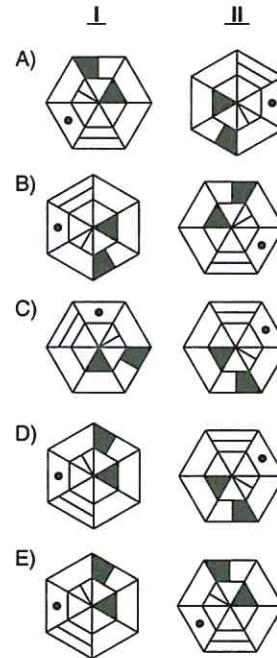
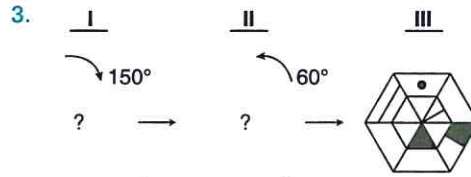
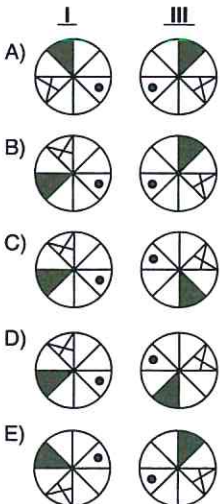
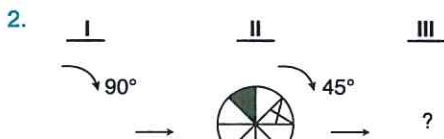
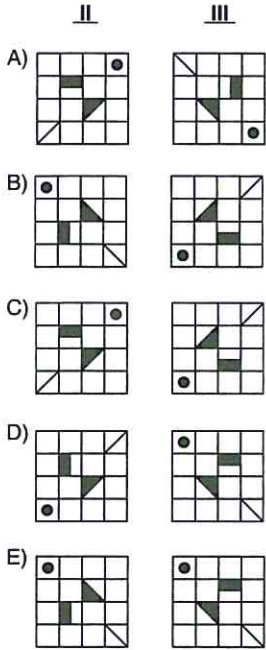
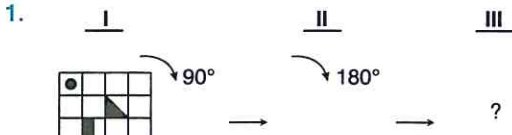


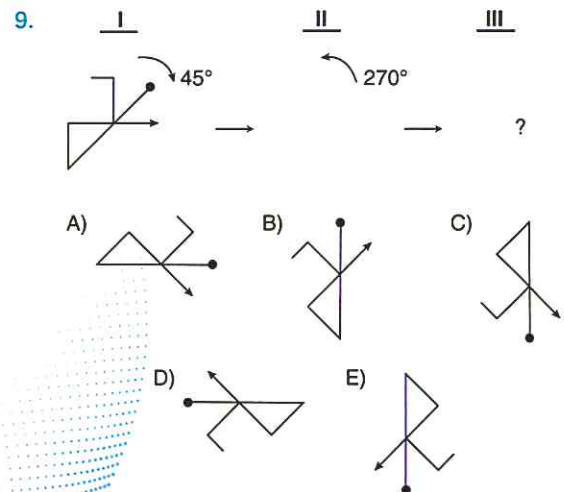
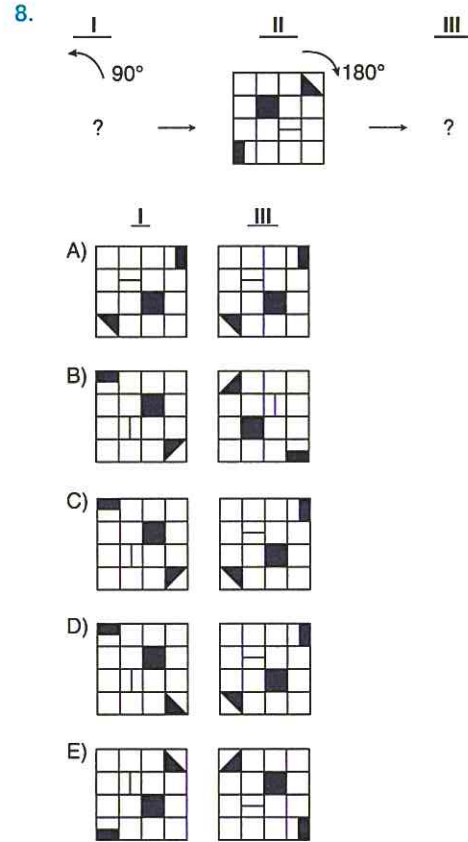
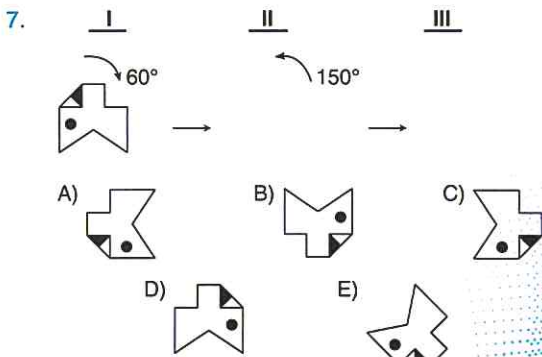
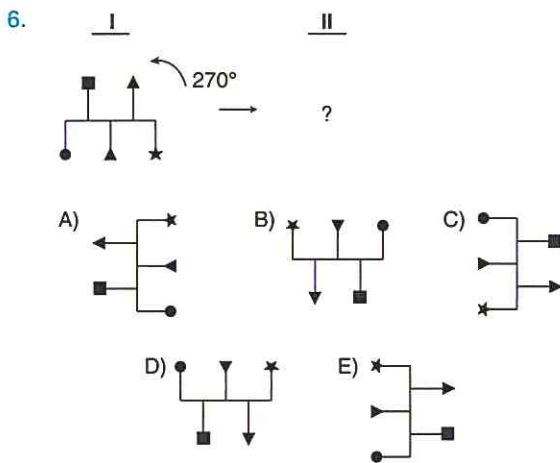
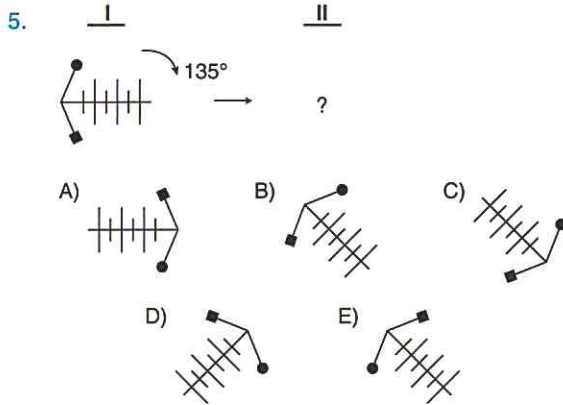
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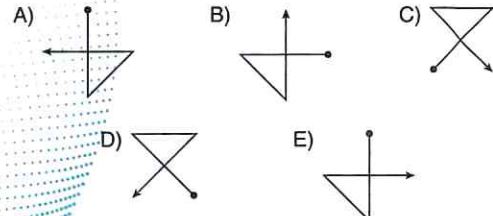
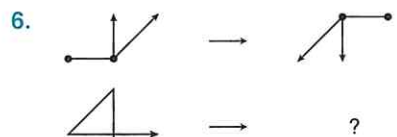
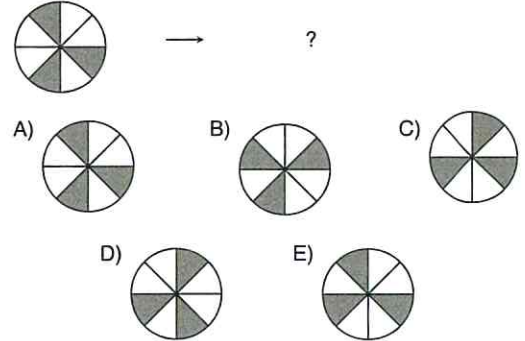
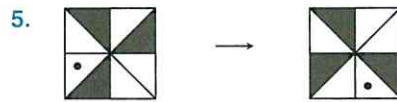
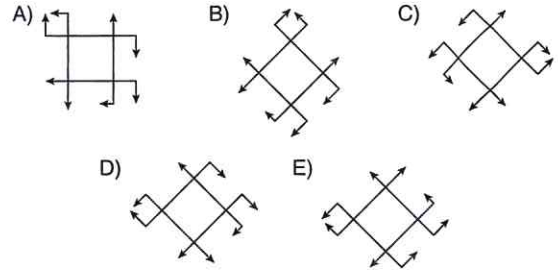
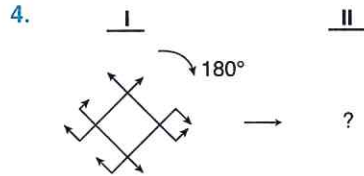
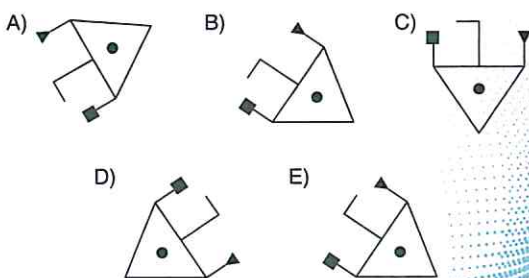
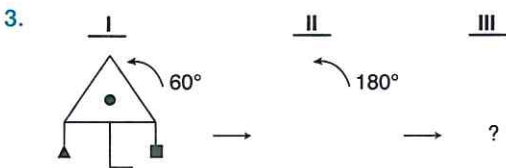
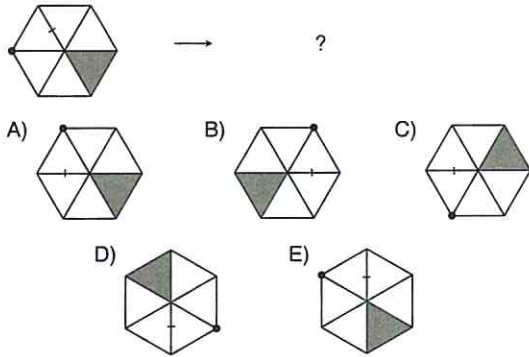
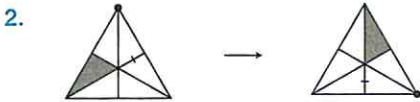
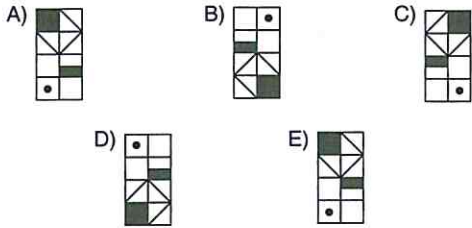
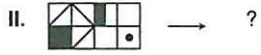
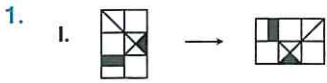




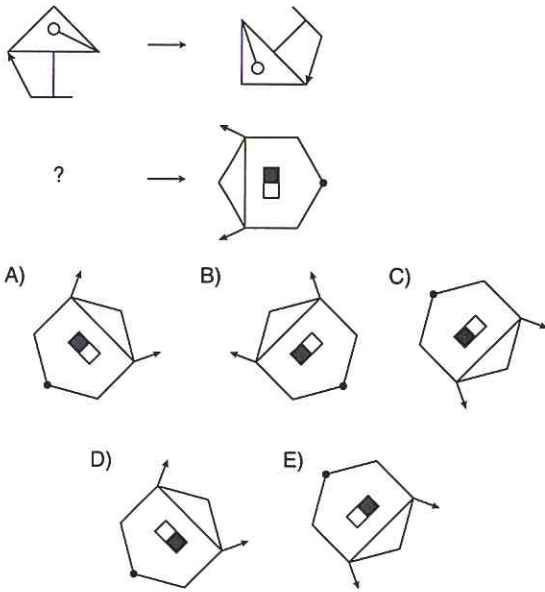




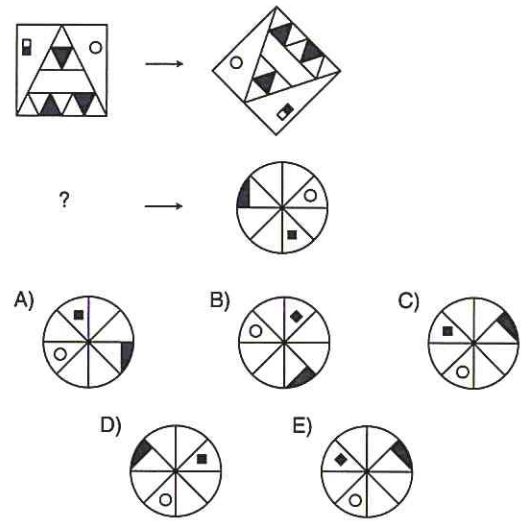




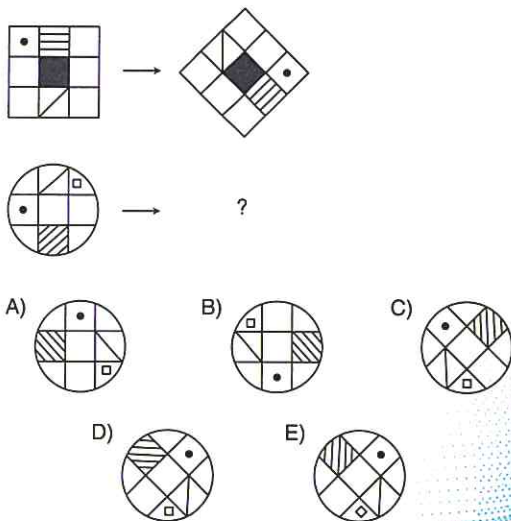
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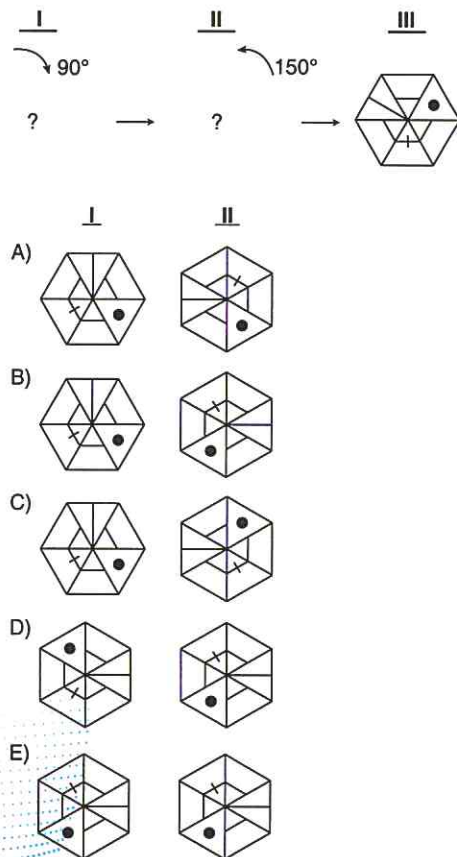
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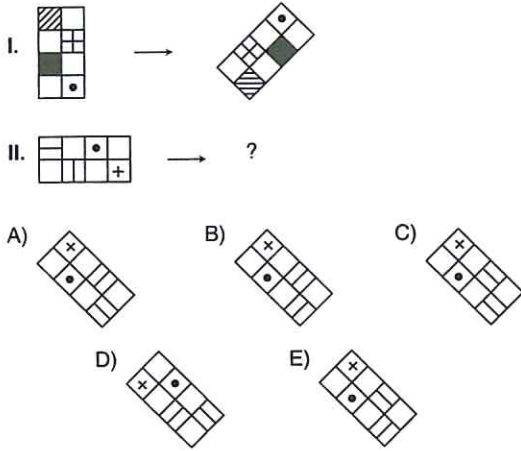
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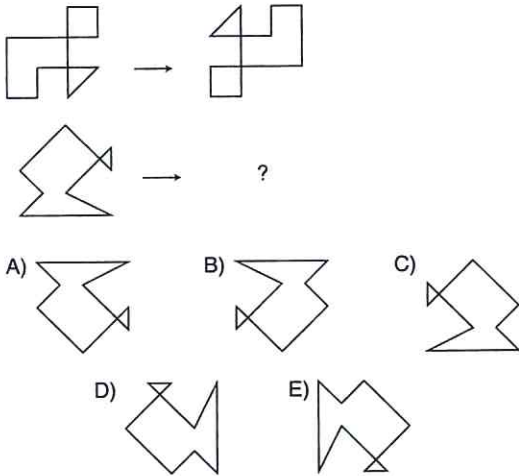
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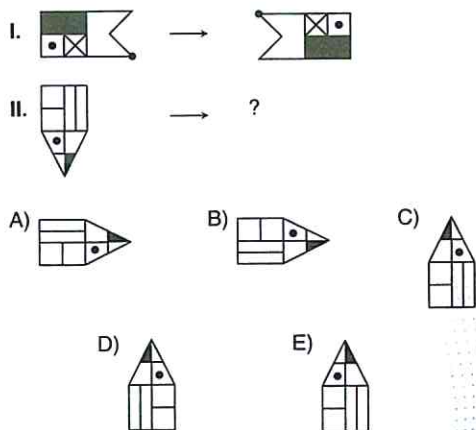
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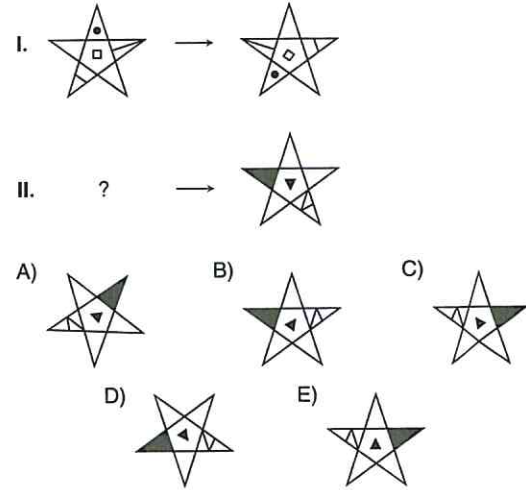
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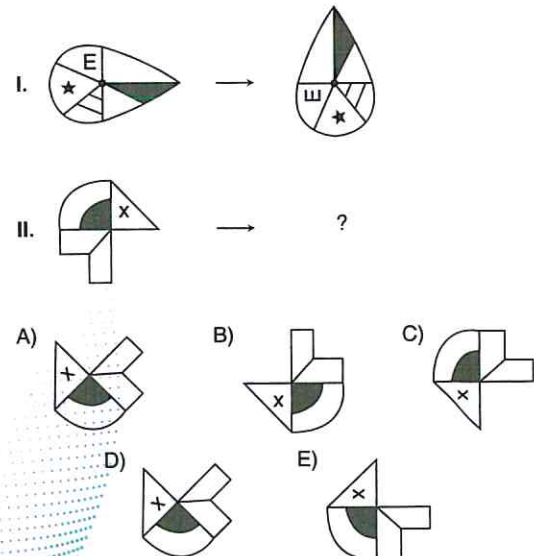
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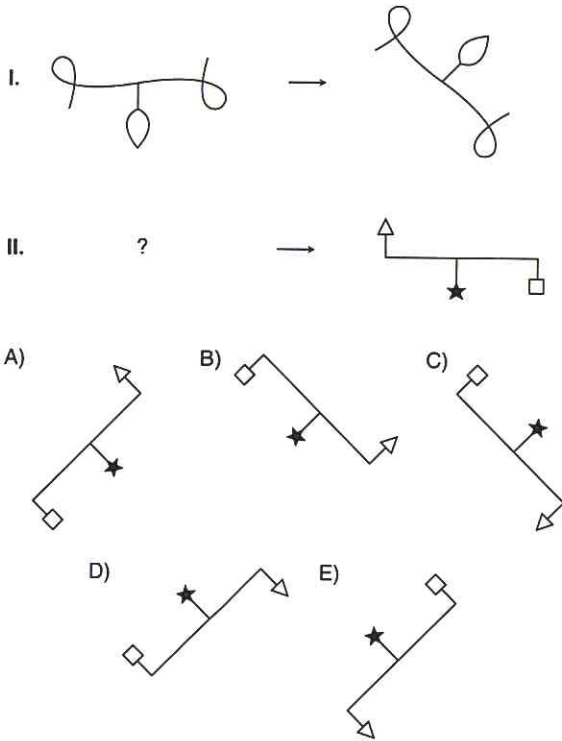
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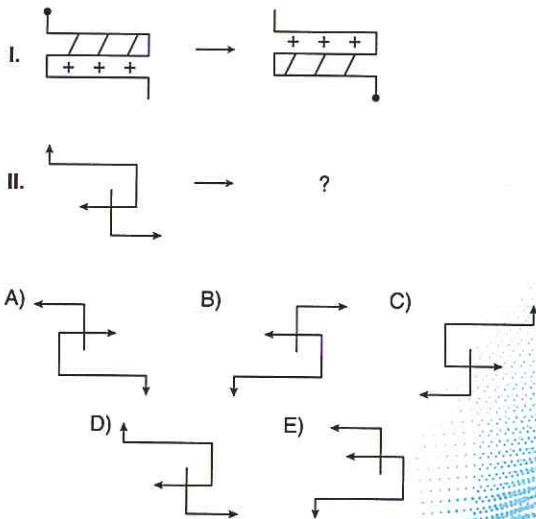
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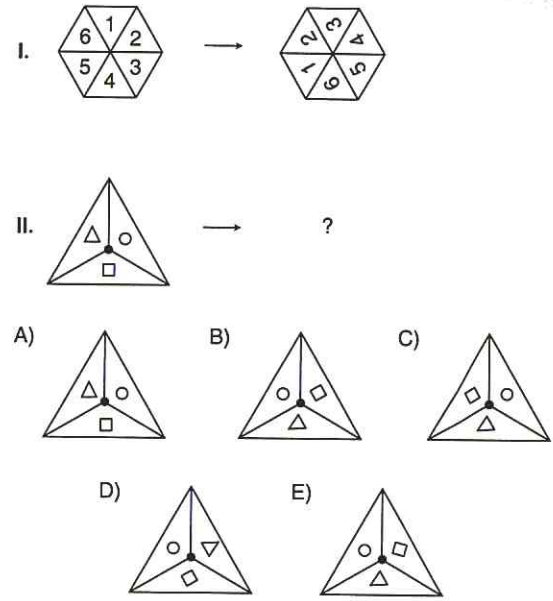
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7.

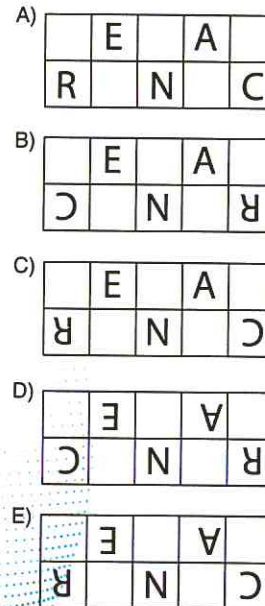
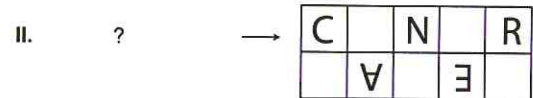


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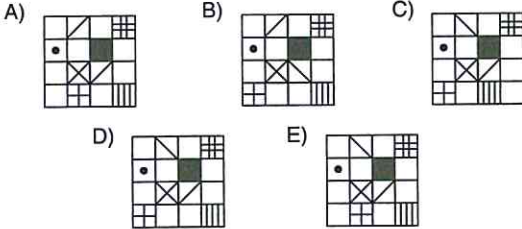
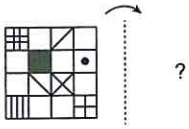


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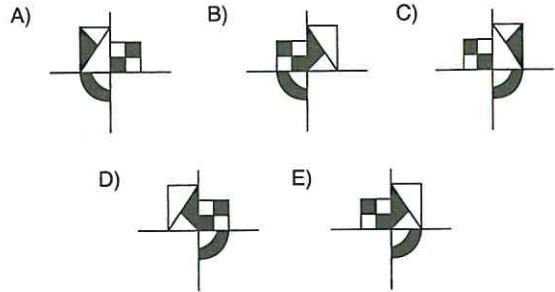
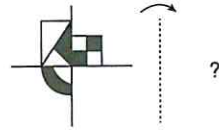
I. $C_A N_E R \rightarrow R^E N^A C$



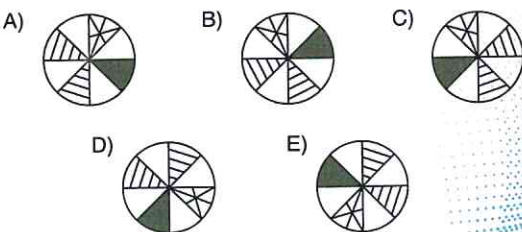
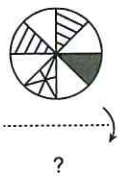
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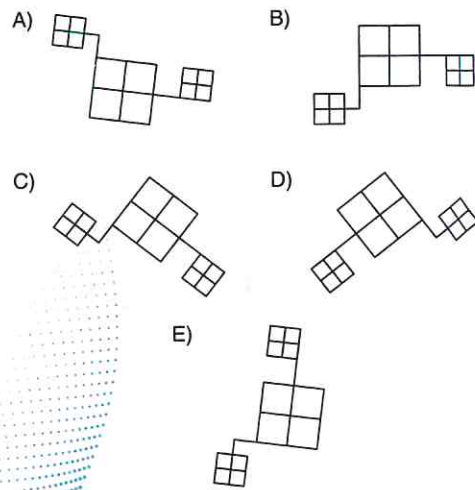
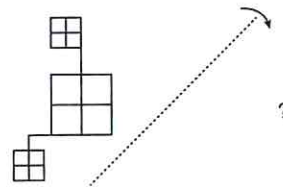
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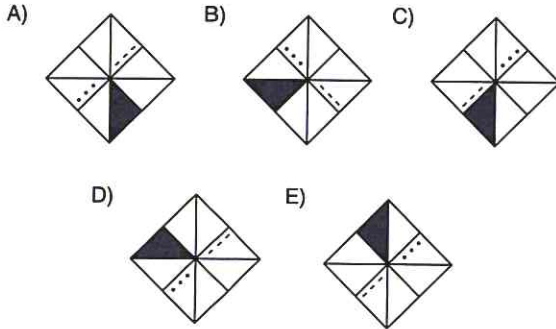
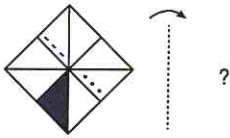
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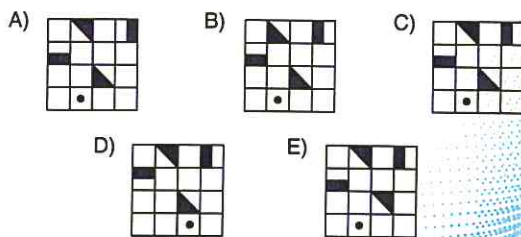
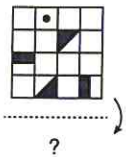
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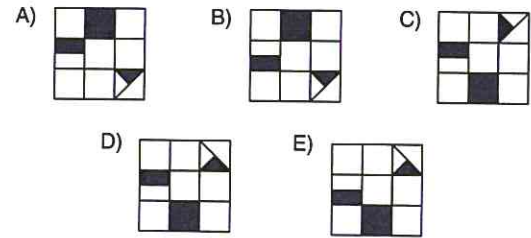
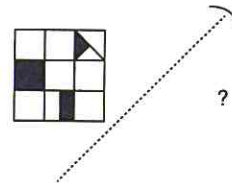
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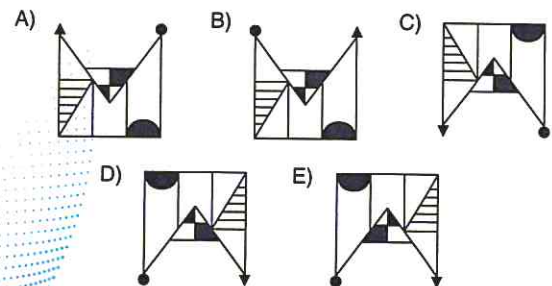
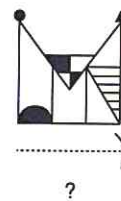
6.



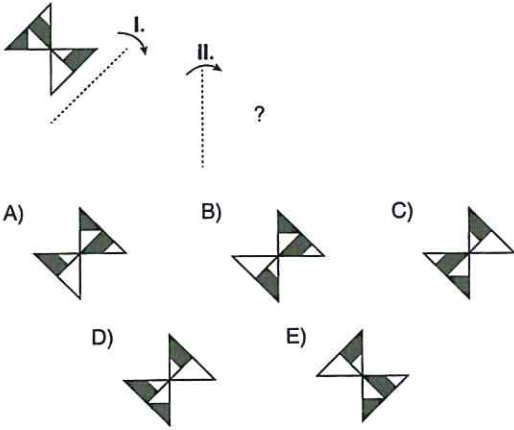
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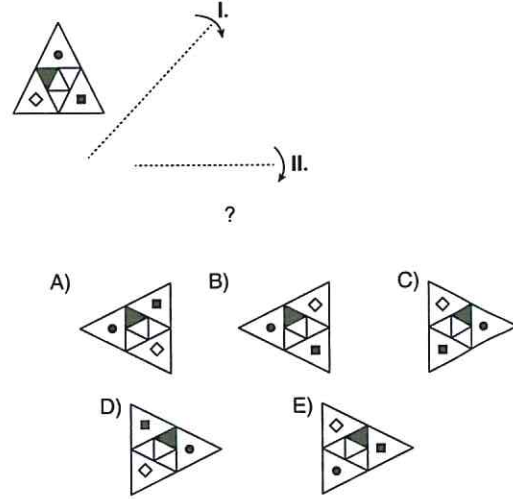
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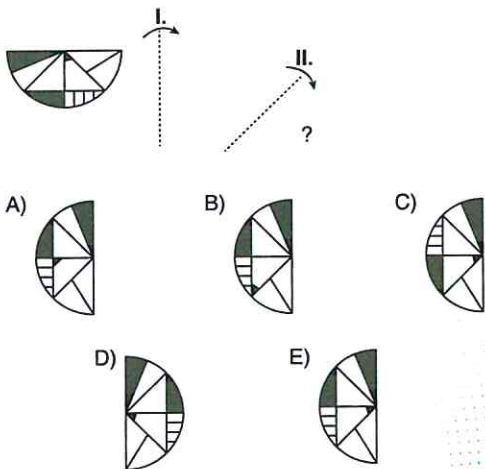
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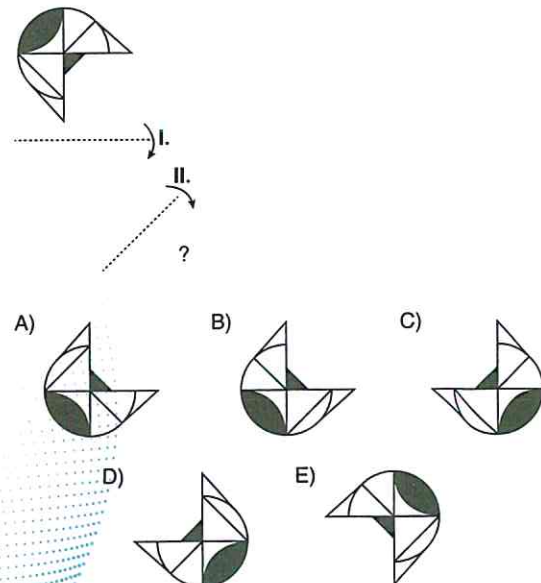
3.



2.



4.



5.

CANER



II.

?

A) CANER

B)

CANER

D)

CANER

C) CANER

E)

CANER

6.



I.

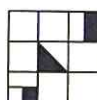
II.

?

A)



B)



C)



D)



E)



7.



I.

?

II.

A)



B)



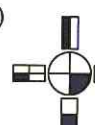
C)



D)



E)



8.

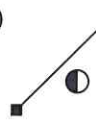


I.

II.

?

A)



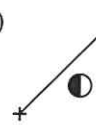
B)



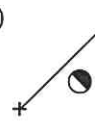
C)



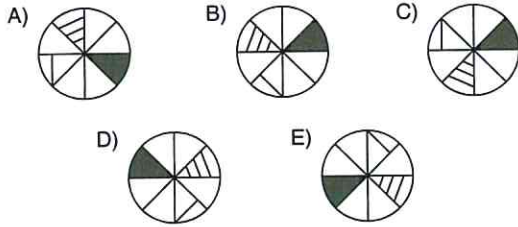
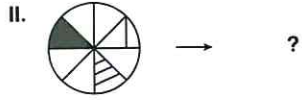
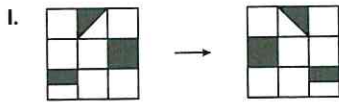
D)



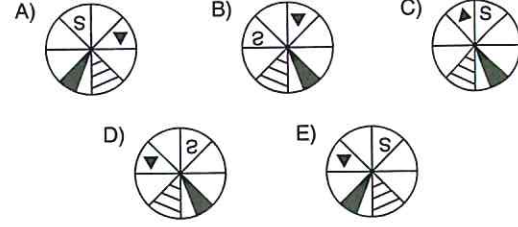
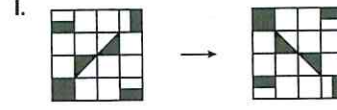
E)



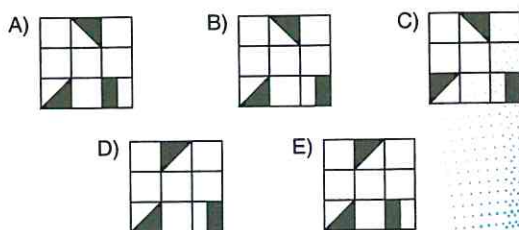
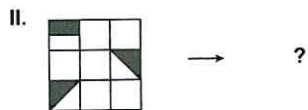
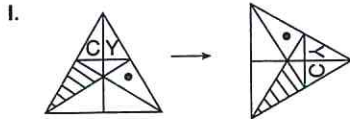
1.



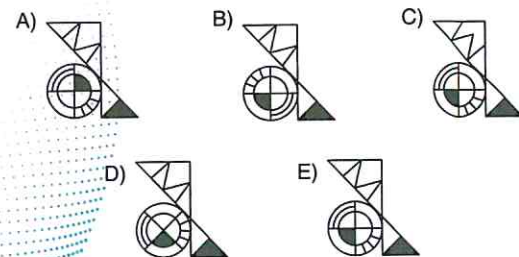
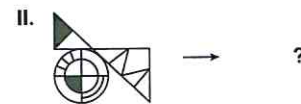
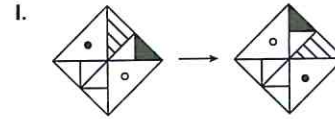
3.



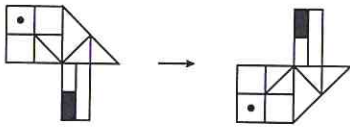
2.



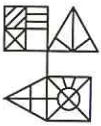
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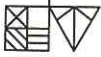
5. I.



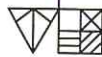
II.



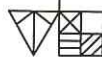
A)



B)



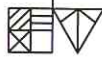
C)



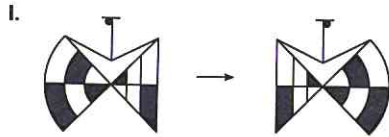
D)



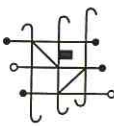
E)



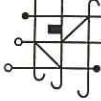
6. I.



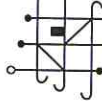
II.



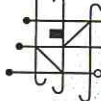
A)



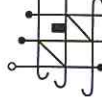
B)



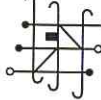
C)



D)



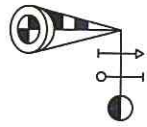
E)



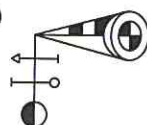
7. I.



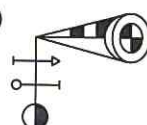
II.



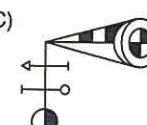
A)



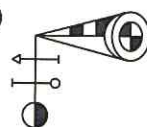
B)



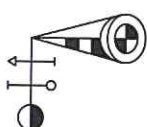
C)



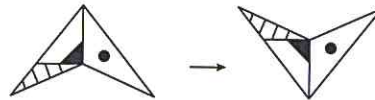
D)



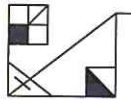
E)



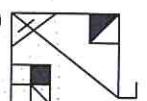
8. I.



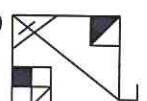
II.



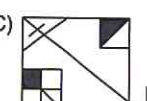
A)



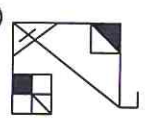
B)



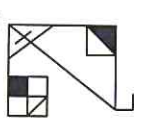
C)

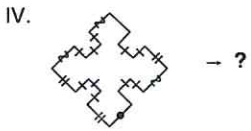
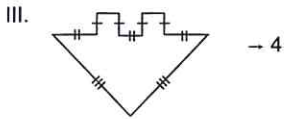
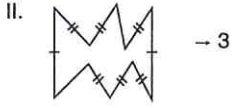
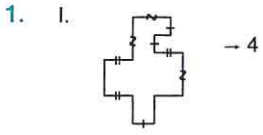


D)

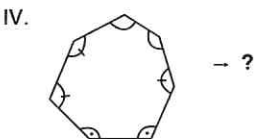
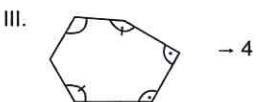
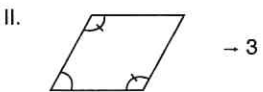
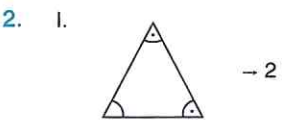


E)



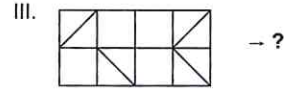
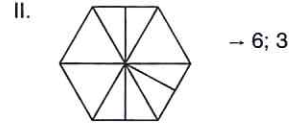
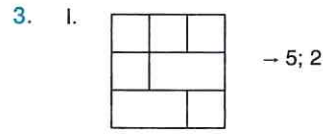


A) 1 B) 2 C) 3 D) 4 E) 5

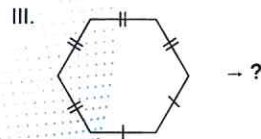
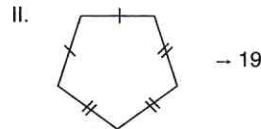
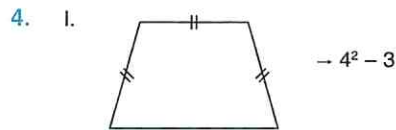


A) 5 B) 4 C) 3 D) 2

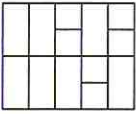
E) 1

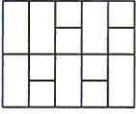


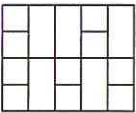
A) 8; 6 B) 8; 3 C) 8; 4
D) 6; 8 E) 6; 4



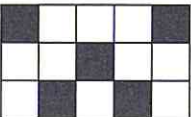
A) 25 B) 26 C) 27 D) 28 E) 29

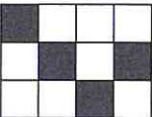
5. I.  → $6 \cdot 7 + 10$

II.  → 58

III.  → ?

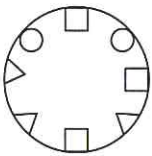
A) 60 B) 62 C) 64 D) 66 E) 68

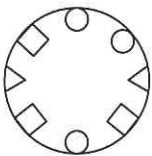
6. I.  → $5 \cdot 10 + 15$

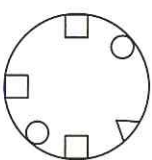
II.  → 44

III.  → ?

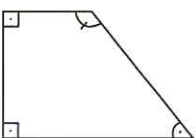
A) 82 B) 84 C) 86 D) 88 E) 90

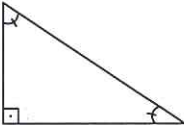
7. I.  → 3, 3, 2

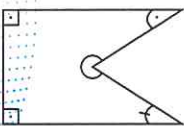
II.  → 2, 3, 3

III.  → ?

A) 1, 3, 2 B) 1, 2, 3 C) 2, 1, 3
D) 2, 3, 1 E) 3, 1, 2

8. I.  → 3

II.  → 2

III.  → ?

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

1.

I. $\begin{array}{c} \text{AAA} \\ \text{BB} \\ \text{CC} \\ \text{DD} \end{array} \rightarrow 2:3:2:2$

II. $\begin{array}{c} \text{AA} \\ \text{B} \\ \text{CCC} \\ \text{DD} \end{array} \rightarrow 3:2:2:1$

III. $\begin{array}{c} \text{A} \\ \text{BBB} \\ \text{CC} \\ \text{DDDD} \end{array} \rightarrow ?$

- A) 1:2:4:3 B) 2:3:4:1
C) 2:1:3:4 D) 2:1:4:3
E) 2:3:1:4

2.

I. $\begin{array}{c} \text{A A B} \\ \text{B A D} \\ \text{C B C} \\ \text{A D C} \end{array} \rightarrow 3:2:3:4$

II. $\begin{array}{c} \text{D B D} \\ \text{A A C} \\ \text{C B D} \\ \text{D D C} \end{array} \rightarrow 2:4:3:3$

III. $\begin{array}{c} \text{C B A} \\ \text{C C D} \\ \text{D C B} \\ \text{A A A} \end{array} \rightarrow ?$

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

3.

I. $\begin{array}{c} \triangle \triangle \triangle \\ \square \square \\ \circ \circ \circ \\ \star \star \end{array} \rightarrow 2:3:2:3$

II. $\begin{array}{c} \circ \circ \\ \star \star \star \\ \square \\ \triangle \triangle \triangle \end{array} \rightarrow 3:4:1:2$

III. $\begin{array}{c} \circ \circ \\ \star \star \star \\ \square \\ \triangle \triangle \triangle \end{array} \rightarrow ?$

- A) 2:3:4:1 B) 3:4:2:1
C) 3:1:3:4 D) 2:3:1:4
E) 3:4:1:2

4.

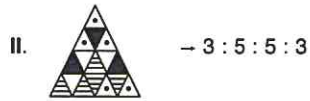
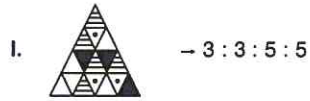
I. $\begin{array}{c} \blacksquare \blacksquare \blacksquare \\ \blacksquare \blacksquare \blacksquare \\ \blacksquare \blacksquare \blacksquare \end{array} \rightarrow 3:2:3:4$

II. $\begin{array}{c} \blacksquare \blacksquare \blacksquare \\ \blacksquare \blacksquare \blacksquare \\ \blacksquare \blacksquare \blacksquare \end{array} \rightarrow 2:3:4:3$

III. $\begin{array}{c} \blacksquare \blacksquare \blacksquare \\ \blacksquare \blacksquare \blacksquare \\ \blacksquare \blacksquare \blacksquare \end{array} \rightarrow ?$

- A) 3:1:4:4 B) 3:2:4:3
C) 3:4:4:1 D) 4:1:4:3
E) 1:4:3:4

5.



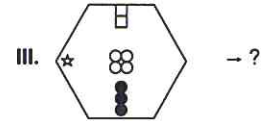
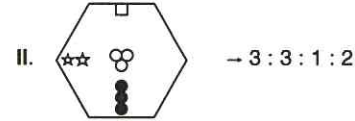
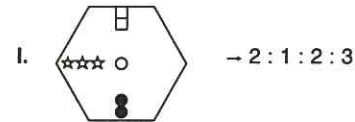
- A) 4 : 4 : 3 : 5 B) 4 : 5 : 5 : 3
C) 4 : 4 : 4 : 5 D) 4 : 3 : 5 : 5
E) 3 : 5 : 4 : 5

6.



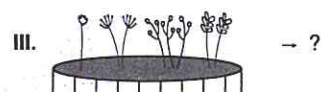
- A) 3 : 2 : 3 : 2 B) 3 : 3 : 2 : 2
C) 3 : 2 : 4 : 1 D) 2 : 4 : 3 : 1
E) 3 : 2 : 1 : 4

7.



- A) 3 : 1 : 2 : 4 B) 3 : 4 : 1 : 2
C) 3 : 1 : 4 : 2 D) 3 : 4 : 2 : 1
E) 3 : 2 : 1 : 4

8.



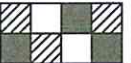
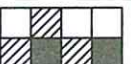
- A) 2 : 1 : 2 : 3 B) 1 : 2 : 2 : 3
C) 2 : 1 : 3 : 2 D) 1 : 2 : 3 : 2
E) 1 : 3 : 2 : 2

1.

	I.	II.	III.
	2	1	1
	1	3	0
	K	L	M

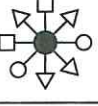
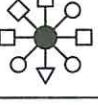
- K L M
- A) 1 1 2
- B) 1 2 1
- C) 2 1 1
- D) 1 1 2
- E) 1 0 2

2.

	I.	II.	III.
	3	2	3
	3	3	2
	K	L	M

- K L M
- A) 2 4 1
- B) 1 3 4
- C) 4 1 3
- D) 1 4 3
- E) 3 1 4

3.

	I.	II.	III.
	3	3	2
	4	2	2
	K	L	M

- K L M
- A) 3 1 4
- B) 4 1 3
- C) 4 3 1
- D) 1 3 4
- E) 1 4 3

4.

	I.	II.	III.
	3	3	0
	2	1	2
	K	L	M

- K L M
- A) 3 2 1
- B) 3 1 2
- C) 1 2 3
- D) 1 3 2
- E) 2 3 1

5.

	I.	II.	III.
	4	1	4
	6	2	4
	K	L	M

	<u>K</u>	<u>L</u>	<u>M</u>
A)	3	1	2
B)	3	2	2
C)	3	1	3
D)	3	3	1
E)	4	1	2

6.

	I.	II.	III.
	K	1	4
	1	2	L
	M	4	1

	<u>K</u>	<u>L</u>	<u>M</u>
A)	3	1	2
B)	2	3	4
C)	2	2	1
D)	3	3	2
E)	3	2	4

7.

	x	3	3
	2	4	z
	2	y	2

	<u>x</u>	<u>y</u>	<u>z</u>
A)	4	1	2
B)	2	1	5
C)	2	4	5
D)	1	2	4
E)	1	4	2

8.

$\rightarrow$	6	x	5
$\Rightarrow$	y	1	2
$\Rightarrow$	4	2	z

	<u>x</u>	<u>y</u>	<u>z</u>
A)	3	4	3
B)	3	3	4
C)	4	3	3
D)	4	3	2
E)	2	3	4

1.

I.	8	2	K
II.	L	5	3
III.	10	M	9

$K + L + M = ?$

- A) 13 B) 14 C) 15 D) 16 E) 17

2.

I.	8	x	0
II.	y	7	1
III.	4	2	z

$x + y + z = ?$

- A) 19 B) 20 C) 21 D) 22 E) 23

3.

	A	B	C
	28	M	35
	K	18	21
	40	15	L

$K, L, M = ?$

- A) 40, 24, 10 B) 24, 42, 20 C) 20, 42, 24
D) 42, 24, 20 E) 20, 24, 42

4.

I.	K	9	8
II.	8	L	10
III.	6	3	M

$K + L + M = ?$

- A) 26 B) 25 C) 24 D) 23 E) 22

5.

	X	Y	Z
	1	K	3
	L	1	1
	3	2	M

$\Rightarrow K : L : M = ?$

- A) 3 : 4 : 2 B) 4 : 3 : 2 C) 3 : 2 : 4
D) 1 : 2 : 3 E) 4 : 1 : 2

6.

	□	★	+
	2	1	K
	L	2	1
	1	M	2

$\Rightarrow K : L : M = ?$

- A) 1 : 2 : 3 B) 2 : 3 : 2 C) 2 : 3 : 3
D) 3 : 3 : 2 E) 2 : 3 : 1

7.

I.	10	6	z
II.	24	y	48
III.	x	$\frac{5}{2}$	$\frac{4}{3}$

$\Rightarrow x : y : z = ?$

- A) 12 : 36 : 13 B) $\frac{3}{2} : 42 : 3$ C) $\frac{3}{2} : 40 : 2$
 D) 6 : 42 : 2 E) 6 : 40 : 2

8.

I.	x	2	3
II.	2	3	z
III.	2	y	1

$\Rightarrow x : y : z = ?$

- A) 2 : 3 : 1 B) 1 : 2 : 3 C) 3 : 1 : 2
 D) 2 : 1 : 3 E) 3 : 2 : 1

9.

	I.	II.	III.
BH	2	x	1
3T	y	1	1
PU	1	3	z

$x : y : z = ?$

- A) 2 : 1 : 3 B) 3 : 1 : 2 C) 3 : 2 : 1
 D) 1 : 2 : 3 E) 2 : 3 : 1

10.

	A	B	C
	2	K	1
	L	2	1
	3	2	M

$\Rightarrow K : L : M = ?$

- A) 1 : 2 : 3 B) 1 : 3 : 2 C) 3 : 2 : 1
 D) 2 : 3 : 1 E) 2 : 1 : 3

11.

	E3T	PFH	LB5
I.	2	x	3
II.	y	1	3
III.	4	3	z

$\Rightarrow x : y : z = ?$

- A) 4 : 2 : 2 B) 2 : 4 : 3 C) 4 : 1 : 3
 D) 2 : 2 : 4 E) 3 : 4 : 2

12.

I.	1	2	K
II.	3	L	2
III.	M	3	2

$\Rightarrow K : L : M = ?$

- A) 2 : 1 : 3 B) 1 : 2 : 3 C) 2 : 3 : 3
 D) 3 : 2 : 3 E) 3 : 1 : 2

1.

Sonuç (Result)				
△	○	△	□	○□
○	△	□	○	△□
○	□	△	□	○△
△	○	○	□	?

- A) ○○ B) ○△ C) △□ D) ○□ E) △△

4.

Sonuç (Result)					
△	○	□	○	☆	△
○	□	□	○	☆	□
△	○	☆	□	○	☆
□	☆	□	○	△	?
☆	□	△	△	☆	☆

- A) △ B) □ C) ☆ D) ○ E) ☆

2.

Sonuç (Result)					
□	☆	△	☆	☆	△
☆	☆	□	☆	☆	□
□	□	☆	☆	△	△
☆	☆	○	☆	○	☆
□	△	☆	☆	☆	?

- A) △ B) □ C) ☆ D) ○ E) ○

5.

Sonuç (Result)					
○	△	△	□	○	
○	○	☆	☆	☆	
△	△	△	□	△	
□	☆	☆	△	○	
○	☆	△	☆	△	
□	△	□	□	○	
△	○	□	?	☆	

- A) △ B) ○ C) □ D) ☆ E) ○

3.

Sonuç (Result)				
✱	★	✱	□	✱
□	★	✱	□	□
△	□	✱	△	△
★	□	□	✱	?

- A) ✱ B) ★ C) □ D) △ E) -

6.

Sonuç (Result)					
✱	+	-	△	✱	-
L	✱	✱	L	L	△
+	-	L	+	△	+
✱	+	L	+	L	-
L	✱	-	△	△	+
+	-	✱	?	✱	△

- A) ✱ B) L C) + D) - E) △

7.

CE	TY	NT	CK	RS
KL	MR	TM	HG	ED
AB	DT	VA	RC	MT
EK	YC	AN	FH	TR
BC	RD	SV	GR	DM
Sonuç (Result)	AL	MC	SM	FK
				?

- A) TM B) MS C) ET D) RE E) ES

8.

††	‡‡	‡	※	‡	‡‡
††	‡	††	‡	※	‡
※	‡	※	‡‡	‡	‡
‡	††	‡‡	††	‡‡	y
‡‡	※	‡	‡	††	※
Sonuç (Result)	※	‡	※	x	‡

⇒ x ; y = ?

- A) ※ ; ‡ B) ※ ; ‡‡ C) ‡‡ ; ‡
D) ‡‡ ; ‡† E) ‡ ; ‡†

9.

◇	◇	◇	◇	◇	Sonuç (Result)
◇	◇	◇	◇	◇	◇
◇	◇	◇	◇	◇	x
◇	◇	◇	◇	◇	◇
◇	◇	◇	◇	◇	◇
Sonuç (Result)	◇	y	◇	◇	◇

⇒ x ; y = ?

- A) ◇ ; ◇ B) ◇ ; ◇ C) ◇ ; ◇
D) ◇ ; ◇ E) ◇ ; ◇

10.

×	×	##	×	##	×	Sonuç (Result)
##	##	×	×	##	×	
##	##	##	##	##	##	
##	##	##	×	##	×	
×	×	×	##	##	?	

- A) × B) ≠ C) × D) ## E) ×

11.

÷	÷	÷	×	×
×	÷	÷	×	×
÷	×	÷	÷	×
÷	÷	×	×	×
×	=	×	×	×
Sonuç (Result)	/	—		\

- A) | B) — C) / D) \ E) O

12.

♣	♥	♠	♠	♥
♠	♠	♠	♠	♠
♣	♠	♠	♠	♠
♠	♠	♥	♠	♥
♣	♠	♠	♠	♥
Sonuç (Result)	♣	♠	♠	?

- A) ♠ B) ♠ C) ♠ D) ♠ E) ♥

1.

	★□○	○○□	△○★
△★○	★	○	△★○
□△○	□○	?	△
★○□	★□	○○□	★○

- A) □○○ B) □△○ C) □○
D) □○ E) ○○

4.

	KMR	CKR	NMC
CNR	R	CR	CN
NRM	RM	R	?
MCR	MR	CR	MC

- A) NM B) NR C) CR D) CN E) MK

2.

	△★○	□◇○	★◇+
△+	△	-	+
★◇	?	◇	★◇
□○	○	□○	-

- A) ★ B) ★◇ C) ◇ D) - E) ○

5.

	×	⊕	⊗
⊕	-	-	□
⊗	\		□
⊗	X	○	?

- A) □ B) / C) \ D) X E) |

3.

	□○	○△	△□
□△	△○	□○	-
△○	△□	-	○○
○○	-	□△	?

- A) △□ B) ○□ C) ○△ D) -

E) □

6.

	D	N	H
O	∩	⊗	⊗
M		N	
E			?

- A) F B) | C) - D) ⊥ E) ||

7.

		2	1	3
		KLM	NPR	STU
1	ABC	AL	AN	x
2	DEF	EL	y	EU
3	GHI	z	IN	IU

 $\Rightarrow x; y; z = ?$

- A) AT ; EN ; IT B) AU ; ER ; IL C) AU ; EN ; IL
D) AU ; EP ; IS E) AT ; EN ; IL

8.

		?		

- A) B) C) D) E)

9.

	★ - +	∞ ✖ ★	- ∞ +
+ - ★	K	- ★	- ∞
✖ - ∞	✖ ★	L	✖ ∞
+ ✖ ★	★★	★★	M

 $\Rightarrow K; L; M = ?$

- A) ★ - ; ✖ ★ ; ★ ∞ B) - ★ ; ✖ ★ ; ∞ ★
C) - ★ ; ✖ ★ ; ★ ∞ D) - ★ ; ★ ✖ ; ★ ∞
E) ✖ ★ ; ★ ∞ ; - ★

10.

	def	npr	vyz
abc	A	ap	az
klm	ld	lp	B
stu	ud	C	uz

 $\Rightarrow A; B; C = ?$

- A) ad ; ly ; ur B) ae ; ly ; ap C) be ; ly ; up
D) ad ; lz ; ur E) ad ; lz ; up

11.

	● ○ △	▲ ○ □	■ ● △
○ △ ▲	○ △	▲ ○	△
□ ■ ●	●	□	■ ●
△ ■ ○	△ ○	?	△ ■

- A) △ ▲ B) △ C) ■ D) ○ E) ■ □

12.

	★ ○ □	★ ●	□ ○ ●
★ ●	● ○ □	-	★ ○ □
○ □ ★	-	○ □ ●	?
● ○	● ★ □	★ ○	□

- A) - B) ★ ○ C) ● D) ★ E) ★ ●

1.

●	//	○	#
△	5		L
◇	K	11	9
□		M	

$$\Rightarrow K + L + M = ?$$

- A) 22 B) 23 C) 24 D) 25 E) 26

4.

★	I.	II.	III.
◇	26	9	M
△	10	L	10
○	K	11	19

$$\Rightarrow K ; L ; M = ?$$

- A) 35 ; 6 ; 16 B) 37 ; 5 ; 16 C) 36 ; 6 ; 18
D) 37 ; 5 ; 18 E) 35 ; 7 ; 17

2.

★	△	□	◇
□	A	0	20
◇	8	20	10
○	18	2	B

$$\Rightarrow A + B = ?$$

- A) 18 B) 23 C) 28 D) 34 E) 42

5.

★	◇	△	□
□	25	K	17
◇	L	19	
△		10	M

$$\Rightarrow K + L + M = ?$$

- A) 60 B) 61 C) 62 D) 63 E) 64

3.

●	×	÷	#
#	10		M
×	K	9	
#	14	L	17

$$\Rightarrow K + L + M = ?$$

- A) 39 B) 38 C) 37 D) 36 E) 35

6.

★	◇	○	△
◇	6	A	7
○	B	10	13
□	4	2	C

$$\Rightarrow A ; B ; C = ?$$

- A) 4 ; 12 ; 5 B) 4 ; 12 ; 6 C) 6 ; 13 ; 4
D) 5 ; 12 ; 4 E) 5 ; 13 ; 5

7.

*	//	△	○
/	-	2	K
□	L	-	5
◇	-	M	-

 $\Rightarrow K; L; M = ?$

- A) -; 4; 3 B) 3; -; 4 C) -; 3; 4
D) 4; 3; - E) 3; 4; -

8.

●	/	◇	○
//	3	A	15
○	B	25	43
△	4	13	C

 $\Rightarrow A + B + C = ?$

- A) 39 B) 38 C) 37 D) 36 E) 35

9.

★	✱	⊞	⊞
//	-	6	M
#	K	4	-
##	-	L	2

 $\Rightarrow K; L; M = ?$

- A) 4; 3; 3 B) 3; 4; 3 C) 3; 3; 3
D) 2; 3; 4 E) 3; 3; 4

10.

★	H	L	E
Z	9	6	x
T	y	4	8
M	12	z	16

 $\Rightarrow x; y; z = ?$

- A) 12; 6; 8 B) 6; 8; 12 C) 4; 6; 8
D) 12; 9; 6 E) 6; 4; 8

11.

★	△	○	□
I.	10	37	K
II.	8	L	11
III.	M	12	8

 $\Rightarrow K + L + M = ?$

- A) 39 B) 40 C) 41 D) 42 E) 43

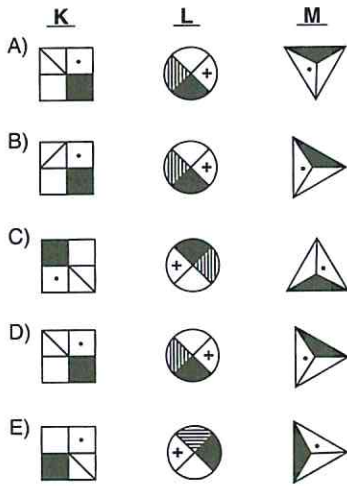
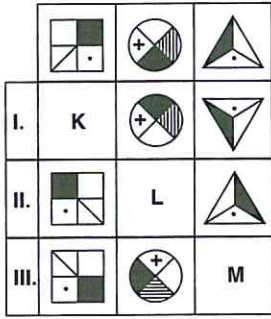
12.

●	□	△	○
W	4	-	K
X	3	L	4
U	-	M	-

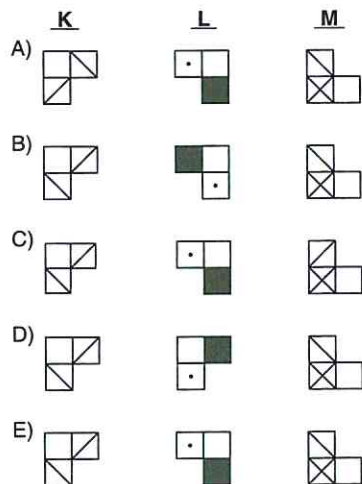
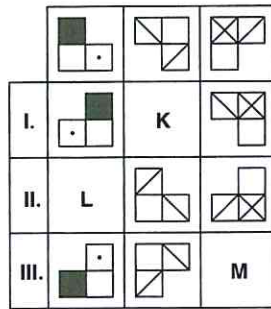
 $\Rightarrow K; L; M = ?$

- A) 5; 2; - B) 5; -; 3 C) 5; 3; 2
D) 3; 5; 3 E) -; 5; 2

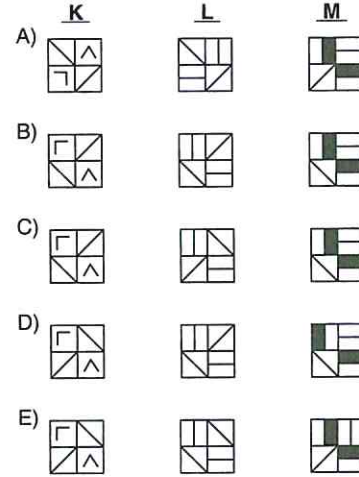
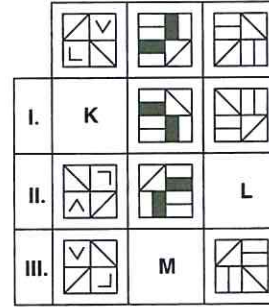
1.



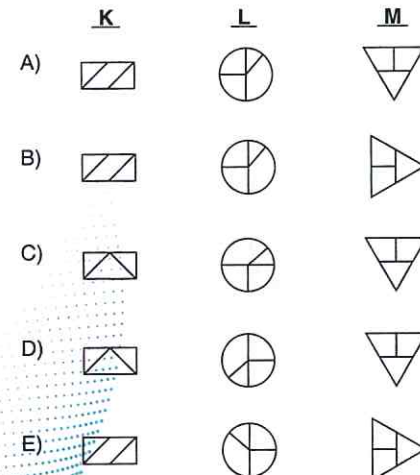
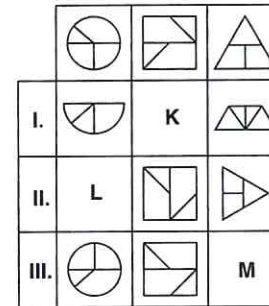
2.



3.



4.



5.

		<table><tr><td>A</td><td>B</td></tr><tr><td>C</td><td>D</td></tr></table>	A	B	C	D	<table><tr><td>L</td></tr><tr><td>Δ</td></tr></table>	L	Δ
A	B								
C	D								
L									
Δ									
I.		X							
II.		<table><tr><td>B</td></tr><tr><td>C</td></tr></table>	B	C	Y				
B									
C									
III.	Z	<table><tr><td>D</td><td>C</td></tr><tr><td>B</td><td>A</td></tr></table>	D	C	B	A	<table><tr><td>Δ</td></tr><tr><td>L</td></tr></table>	Δ	L
D	C								
B	A								
Δ									
L									

- A)

X
D

Y
L

Z
Δ
- B)

X
A

Y
L

Z
Δ
- C)

X
A

Y
L

Z
Δ
- D)

X
A

Y
L

Z
Δ
- E)

X
D

Y
L

Z
Δ

6.

	I.	II.	III.
	K		
		L	
			M

- A)

K
L

M
Δ
- B)

K
L

M
Δ
- C)

K
L

M
Δ
- D)

K
L

M
Δ
- E)

K
L

M
Δ

7.

	I.	II.	III.
	X		
		Y	
			Z

- A)

X
Y

Z
Δ
- B)

X
Y

Z
Δ
- C)

X
Y

Z
Δ
- D)

X
Y

Z
Δ
- E)

X
Y

Z
Δ

8.

	I.	II.	III.
			X
		Y	
	Z		

- A)

X
Y

Z
Δ
- B)

X
Y

Z
Δ
- C)

X
Y

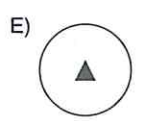
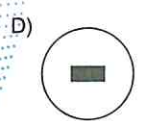
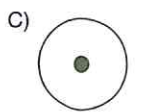
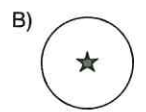
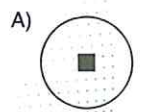
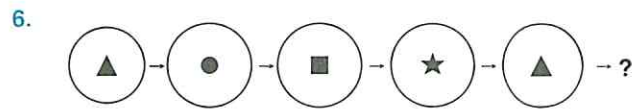
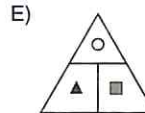
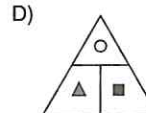
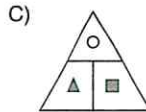
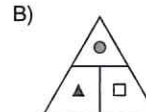
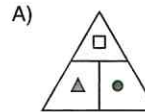
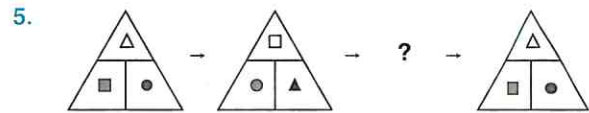
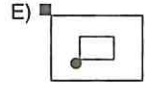
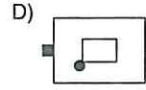
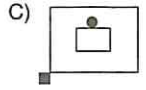
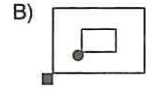
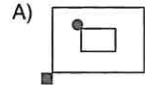
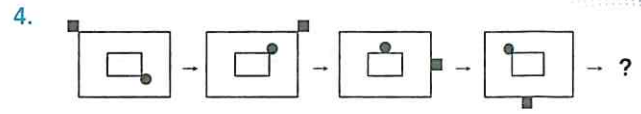
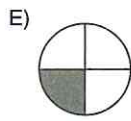
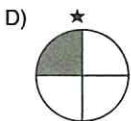
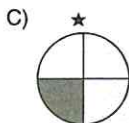
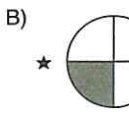
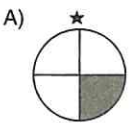
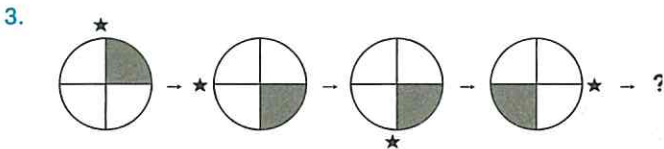
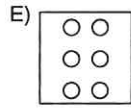
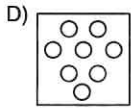
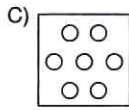
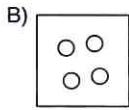
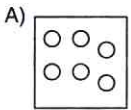
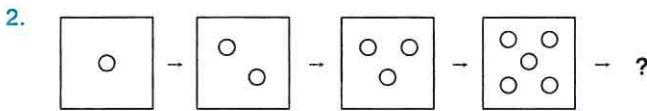
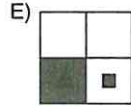
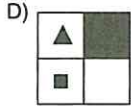
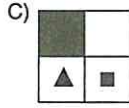
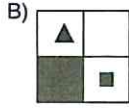
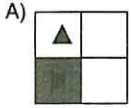
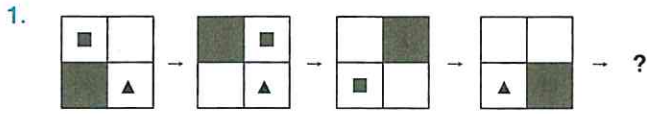
Z
Δ
- D)

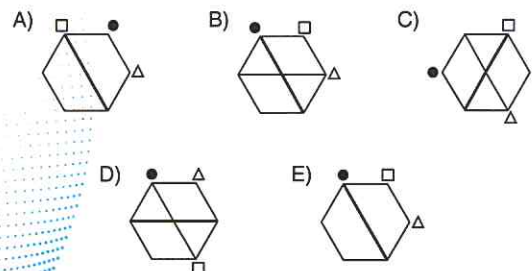
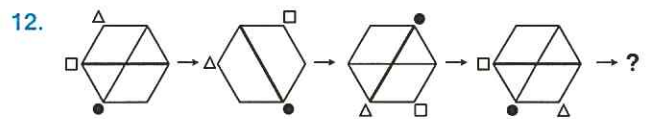
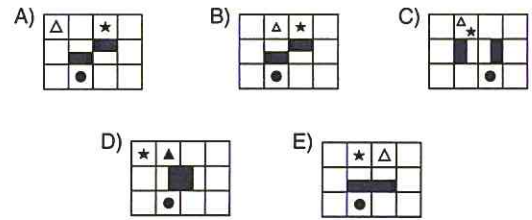
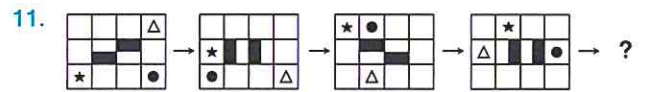
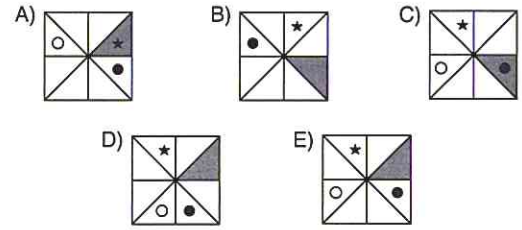
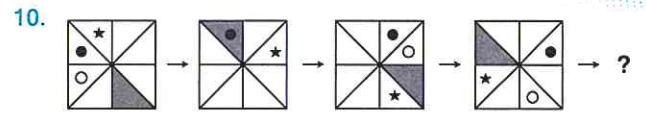
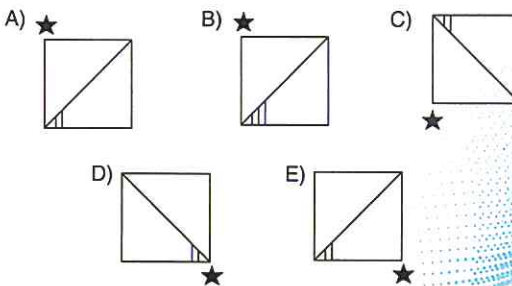
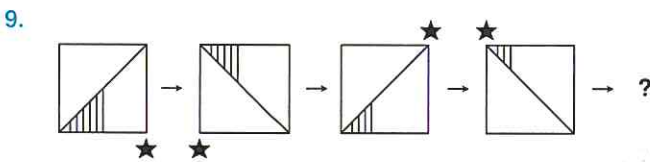
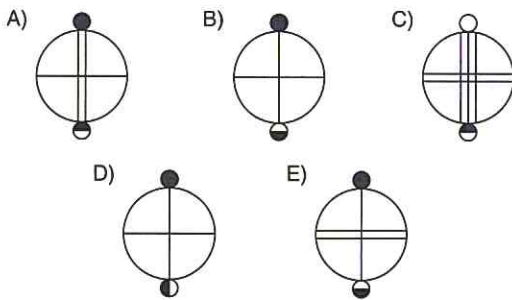
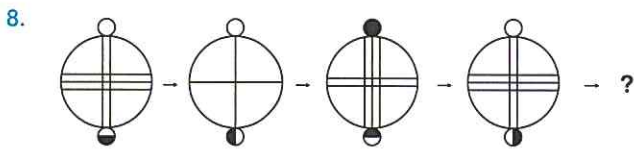
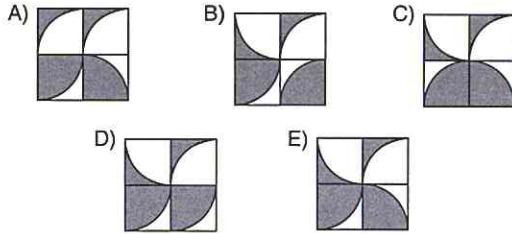
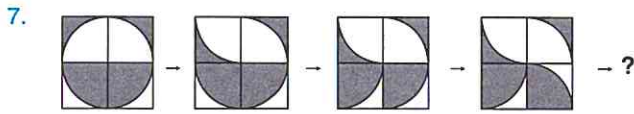
X
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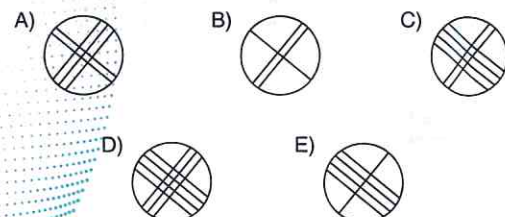
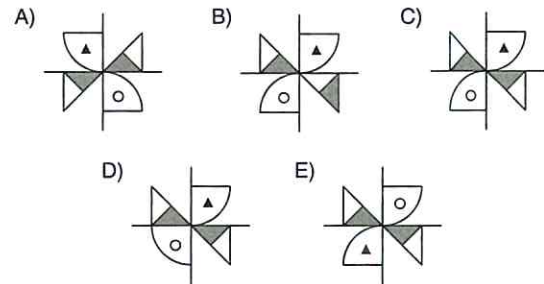
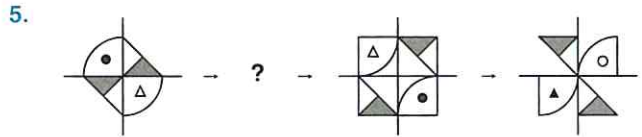
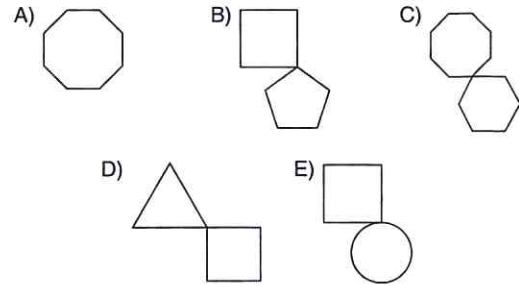
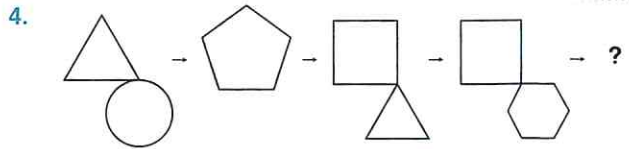
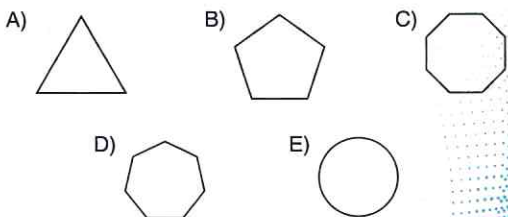
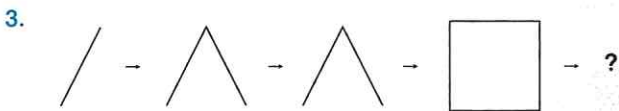
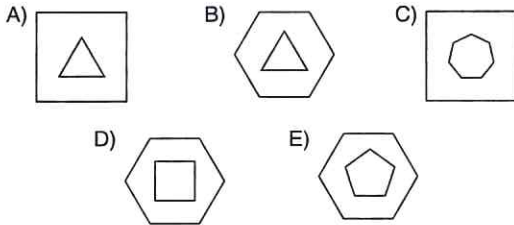
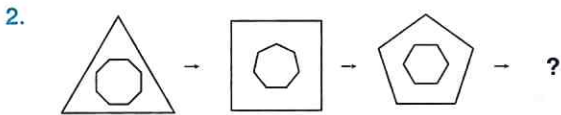
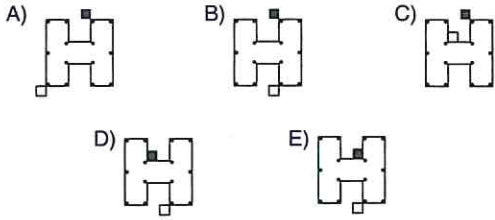
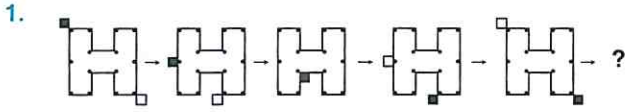
Z
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- E)

X
Y

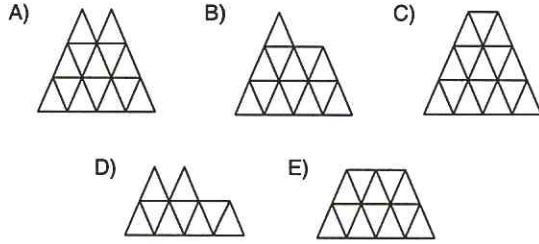
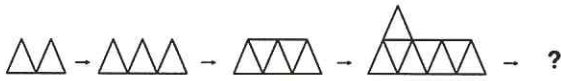
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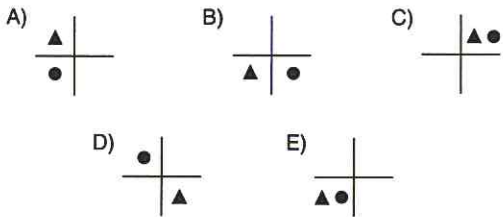
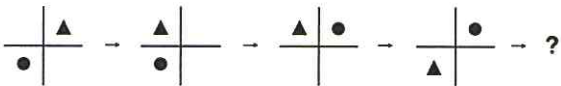




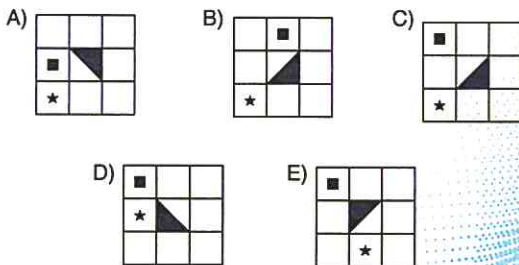
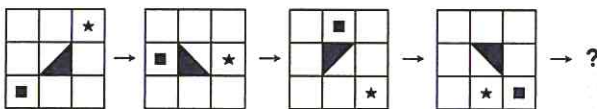
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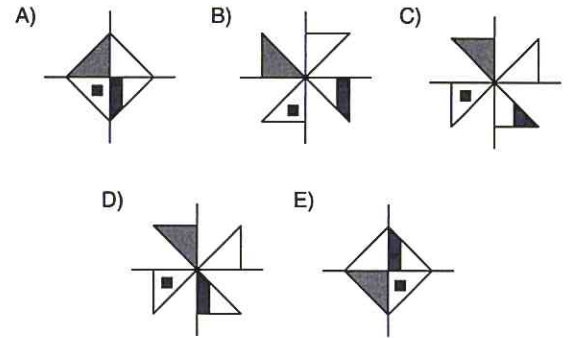
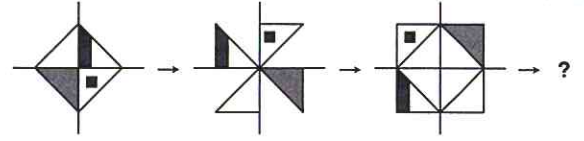
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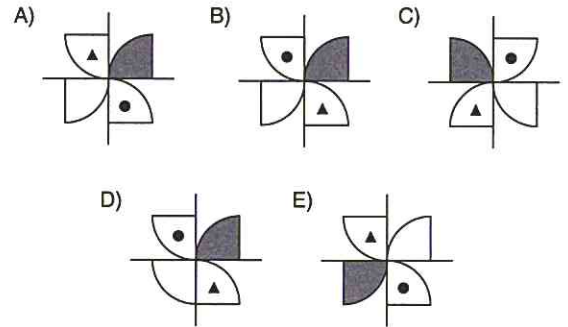
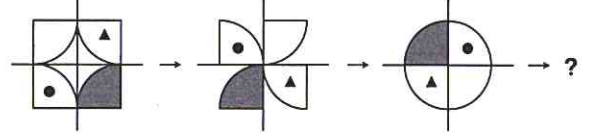
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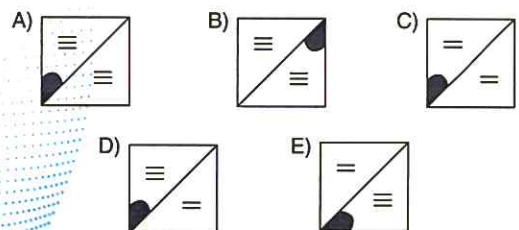
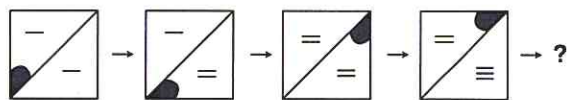
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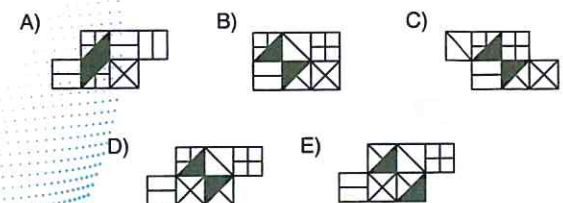
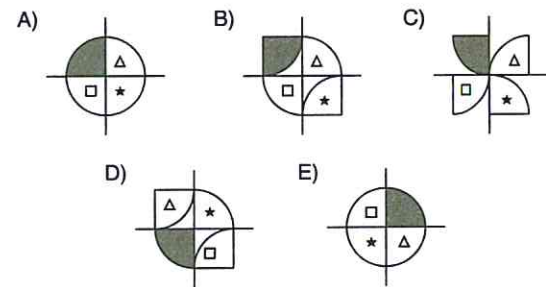
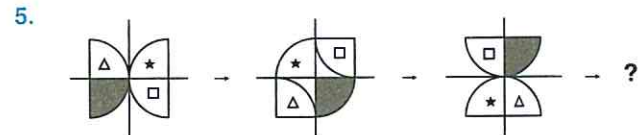
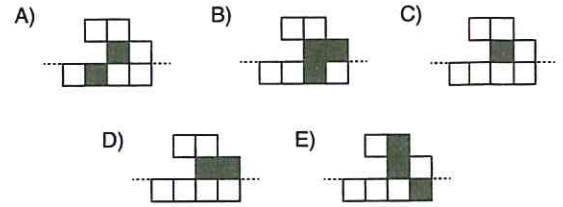
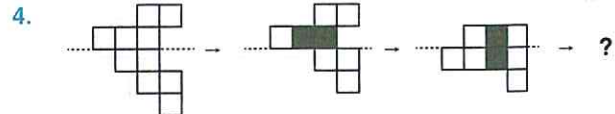
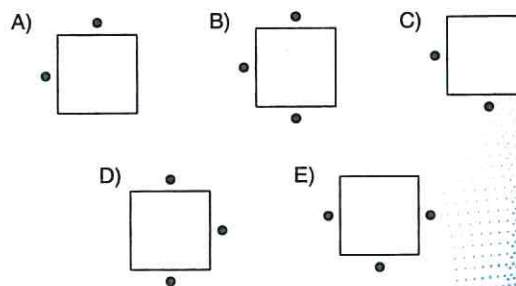
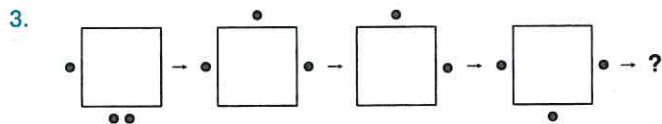
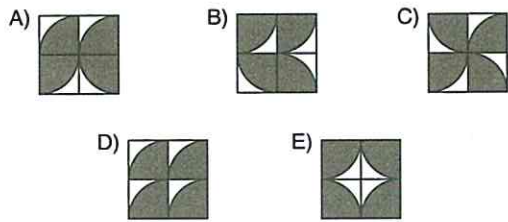
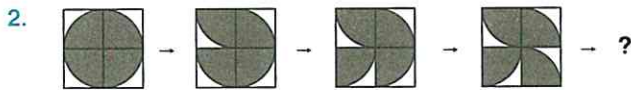
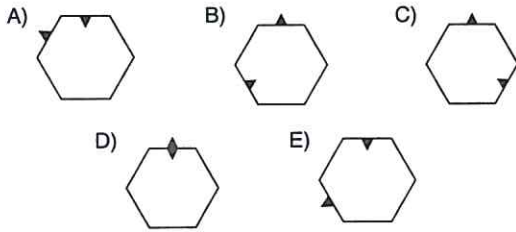
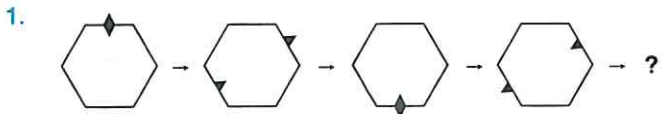


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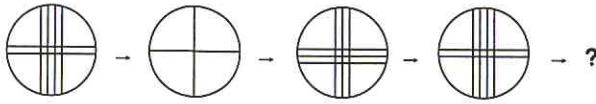


12.





7.



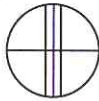
A)



B)



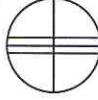
C)



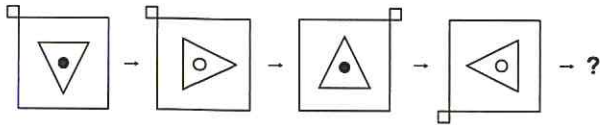
D)



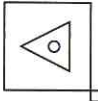
E)



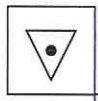
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A)



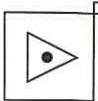
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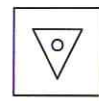
C)



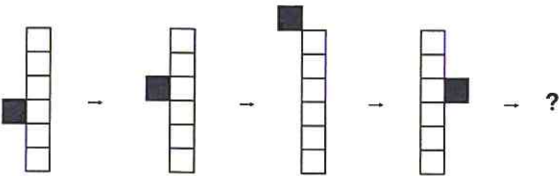
D)



E)



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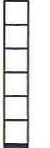
A)



B)



C)



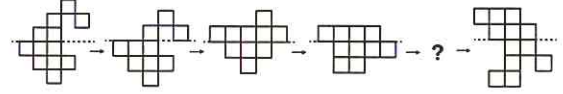
D)



E)



10.



A)



B)



C)



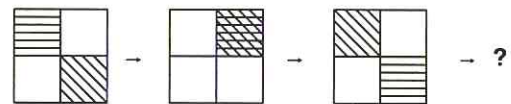
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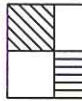
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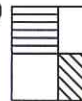
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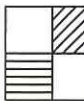
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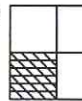
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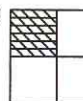
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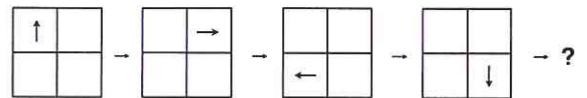
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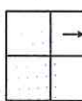
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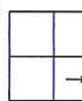
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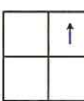
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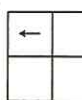
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C)

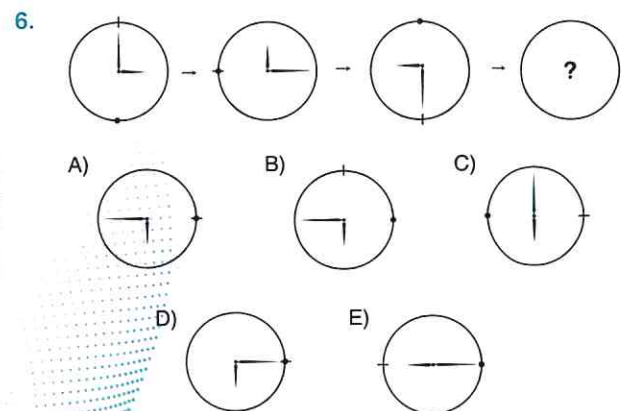
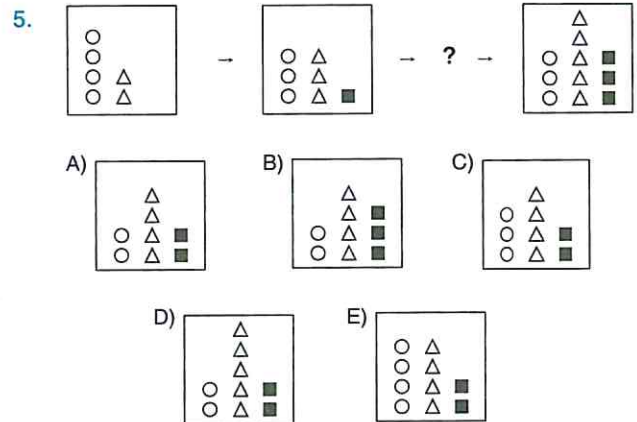
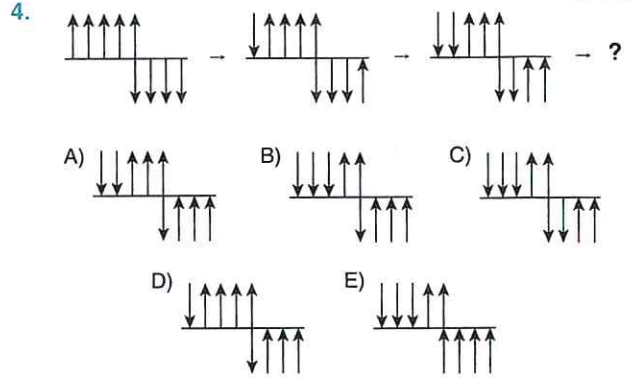
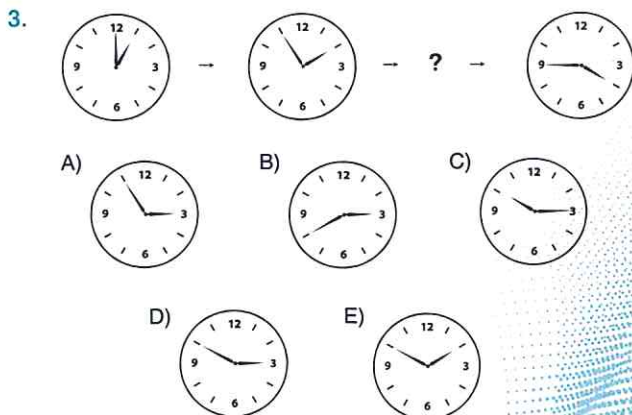
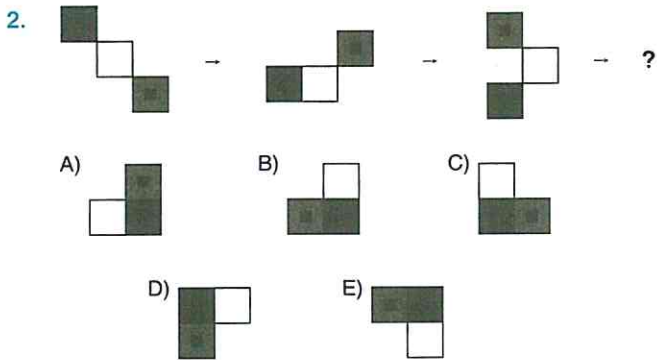
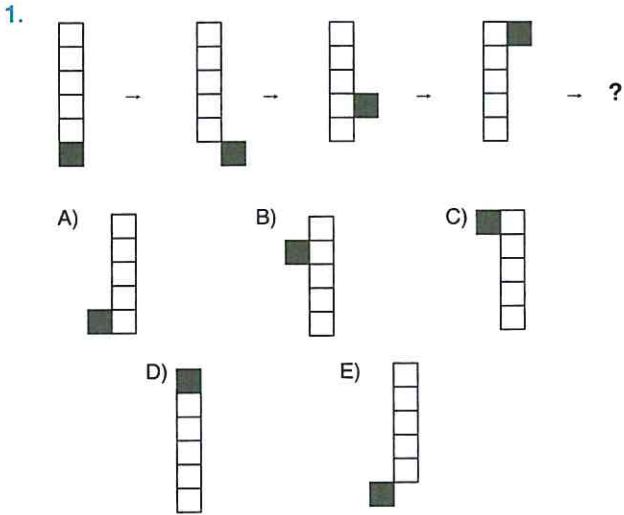


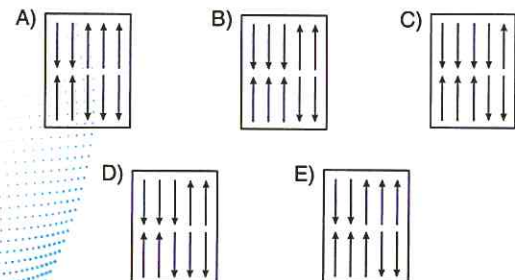
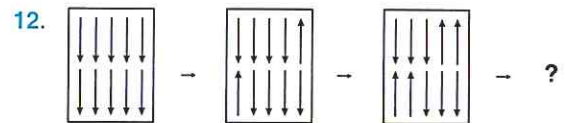
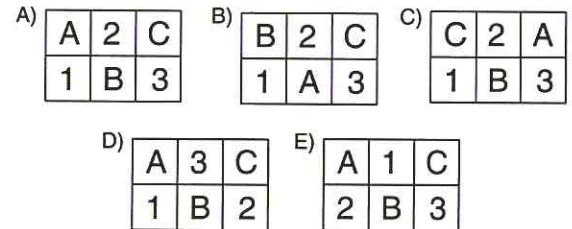
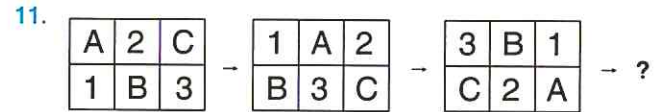
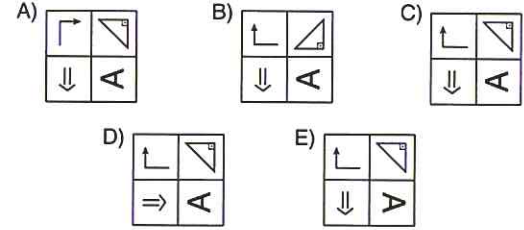
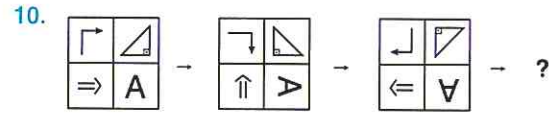
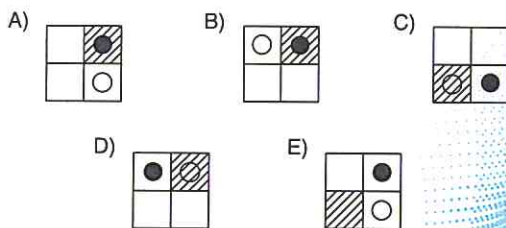
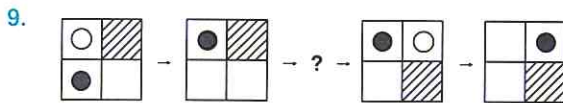
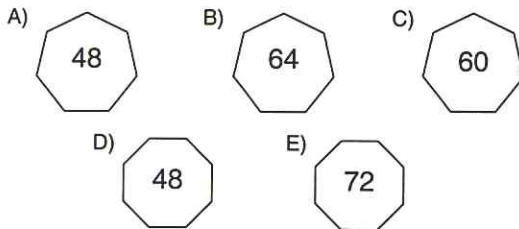
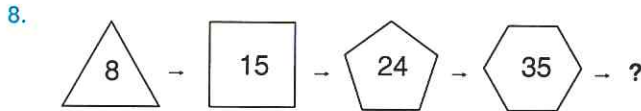
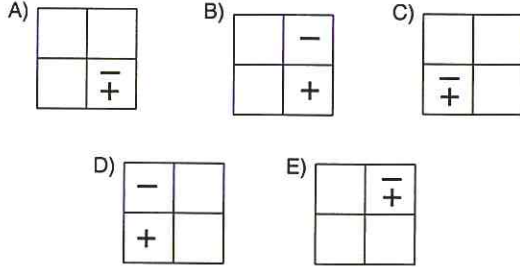
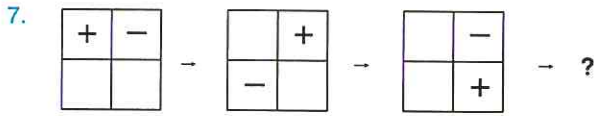
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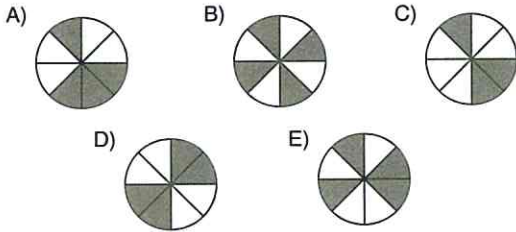
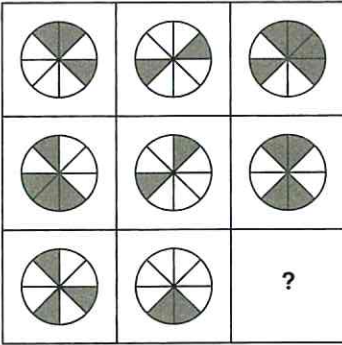
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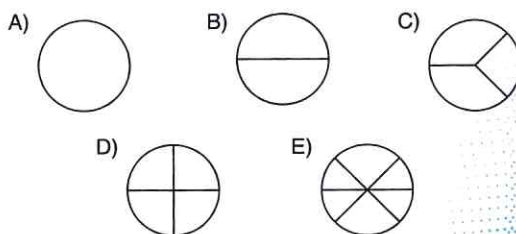
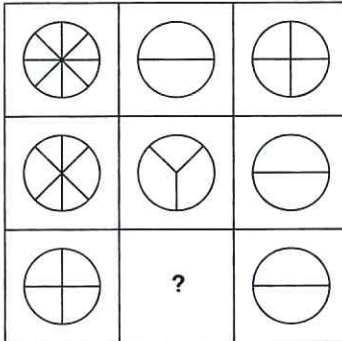




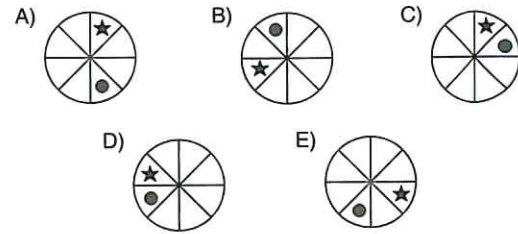
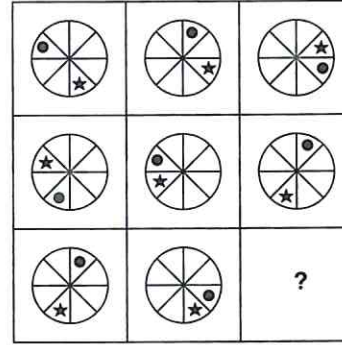
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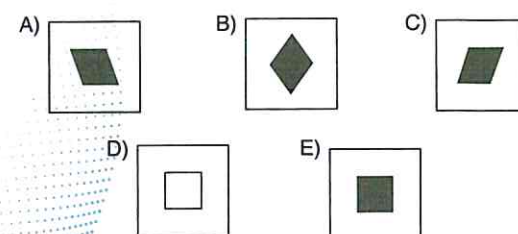
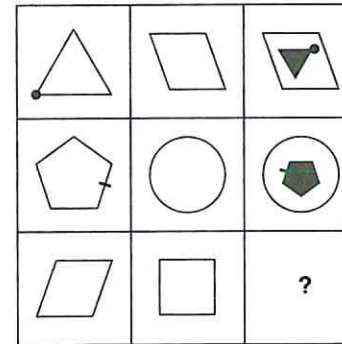
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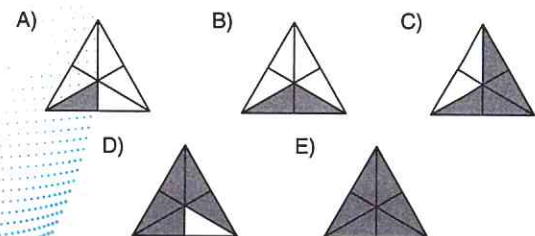
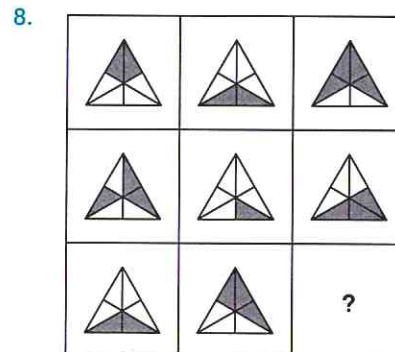
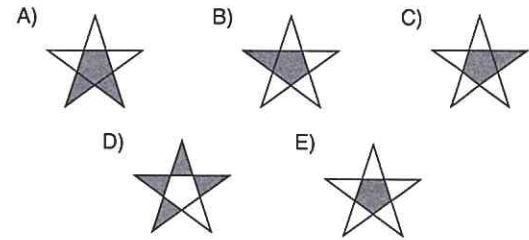
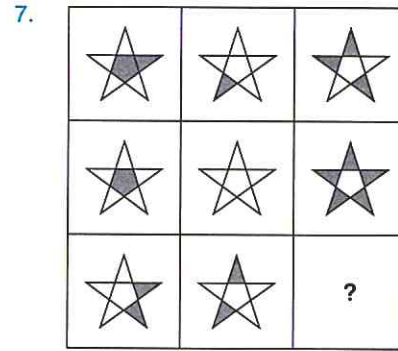
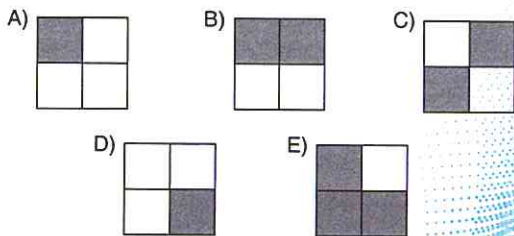
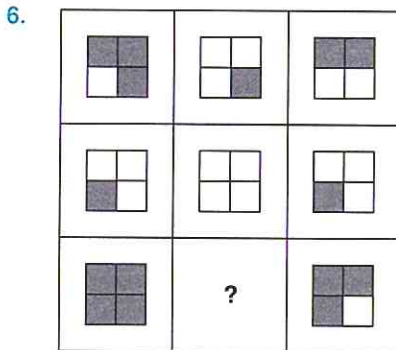
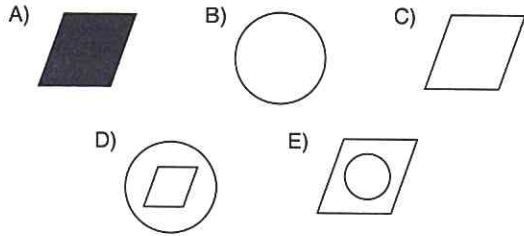
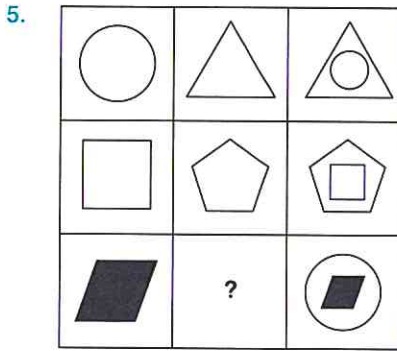


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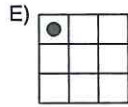
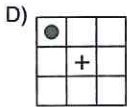
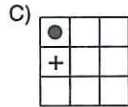
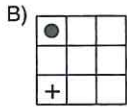
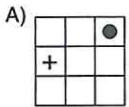
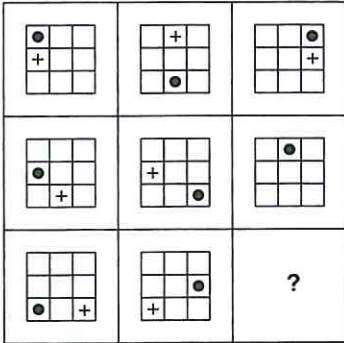


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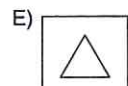
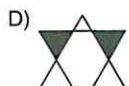
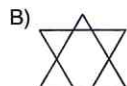
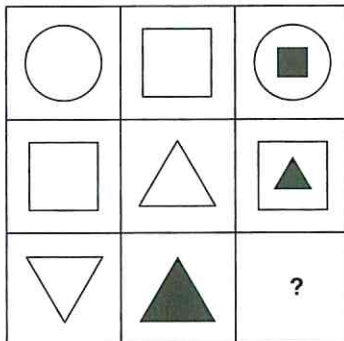




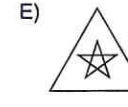
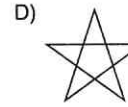
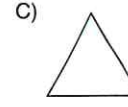
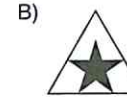
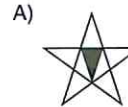
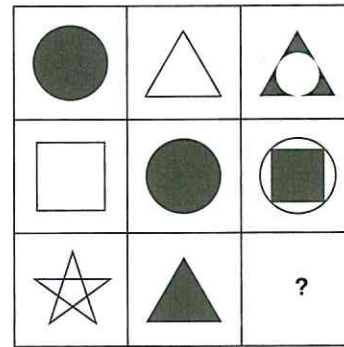
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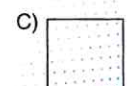
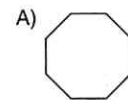
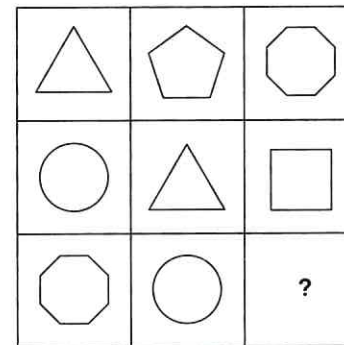
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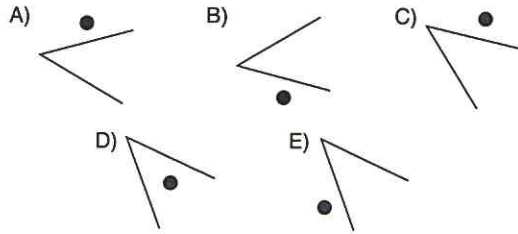
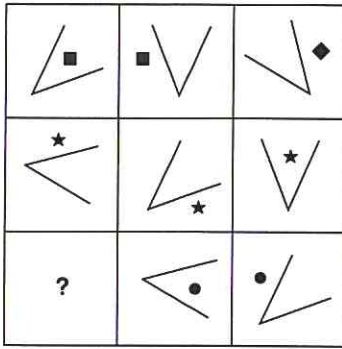
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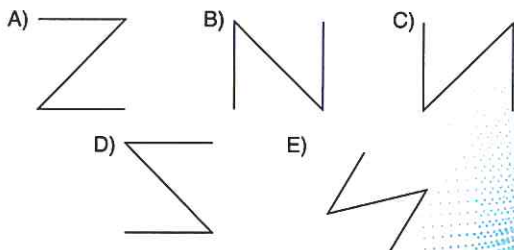
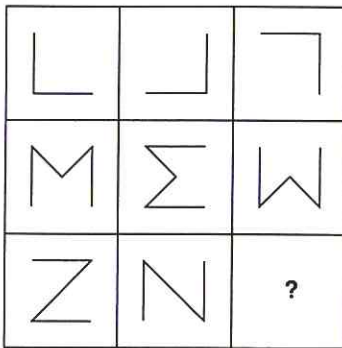
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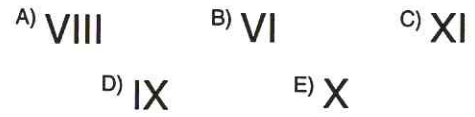
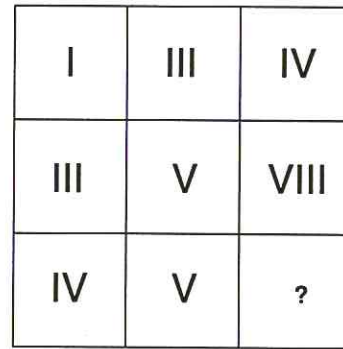
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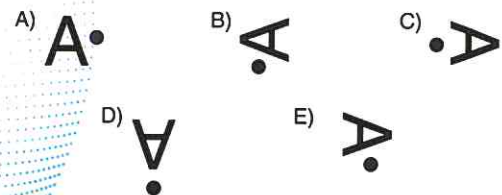
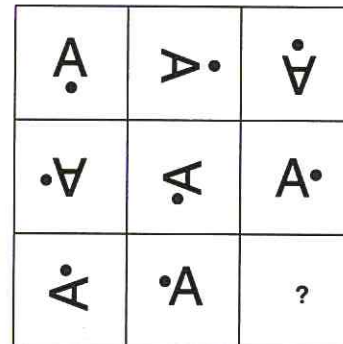
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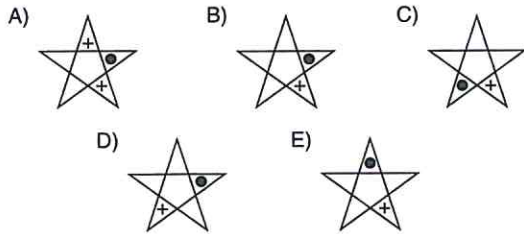
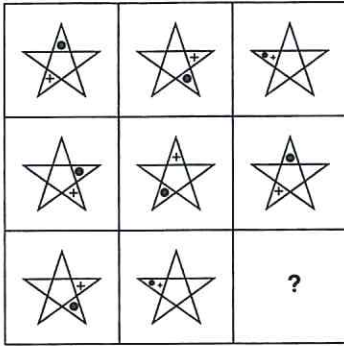
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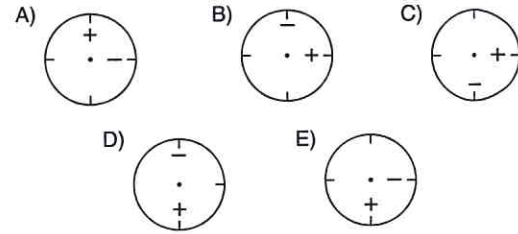
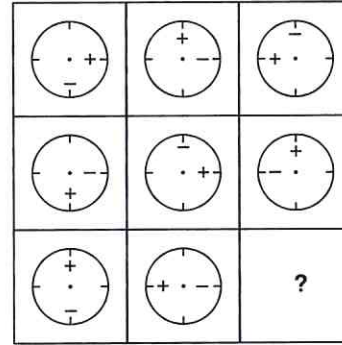
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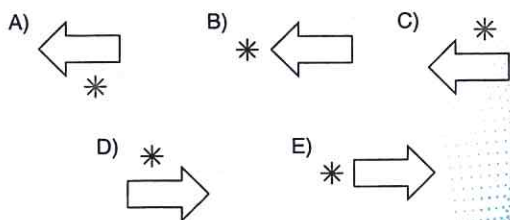
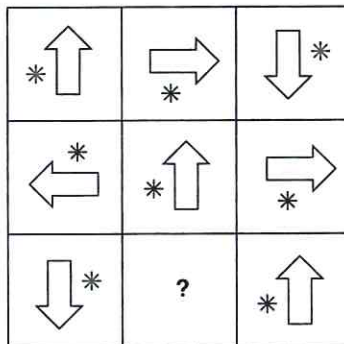
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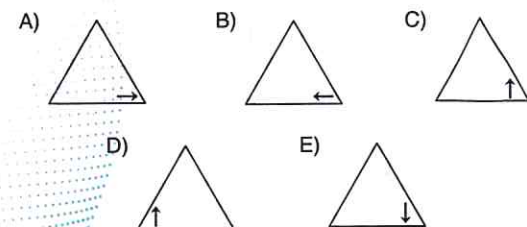
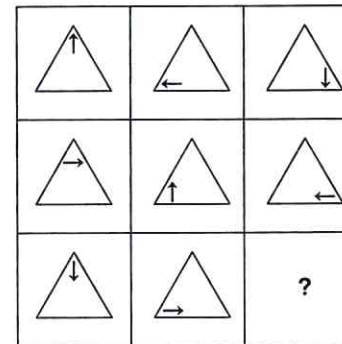
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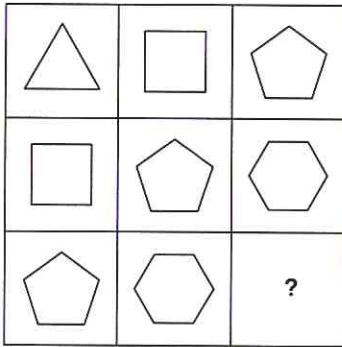
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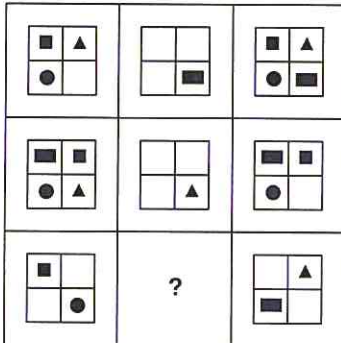


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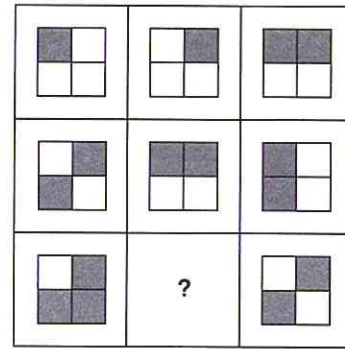
- A) B) C)
- D) E)

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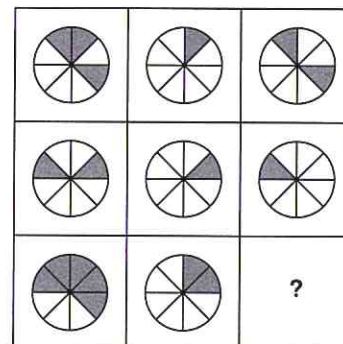
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- C) D)
- E)

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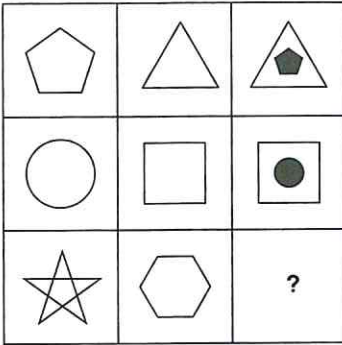
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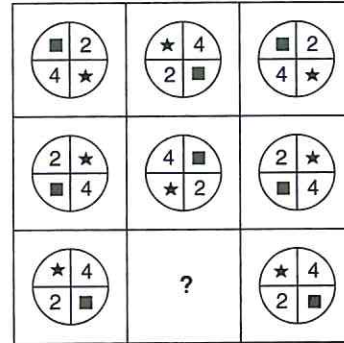
- A) B)
- C) D)
- E)

1.



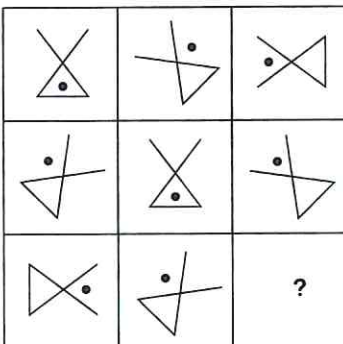
- A)
- B)
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- D)
- E)

3.



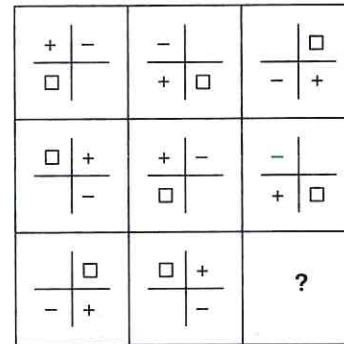
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- B)
- C)
- D)
- E)

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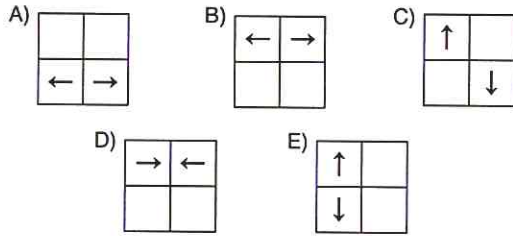
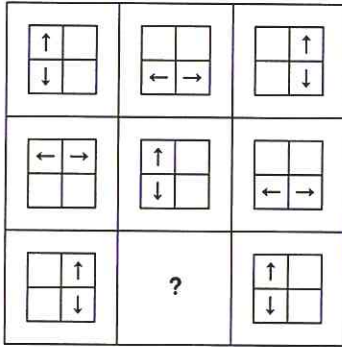
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- B)
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- D)
- E)

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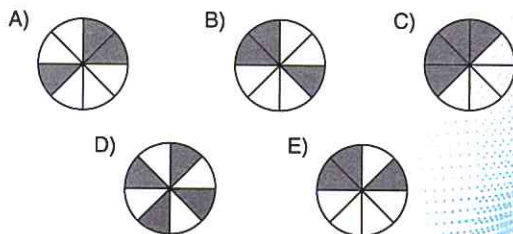
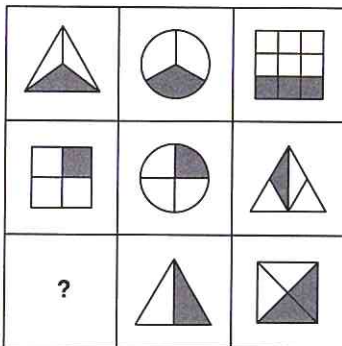


- A)
- B)
- C)
- D)
- E)

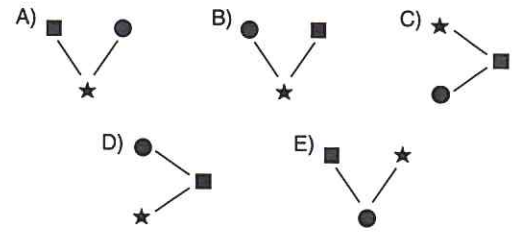
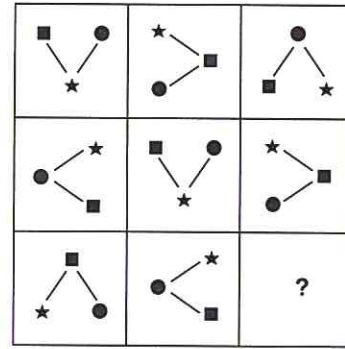
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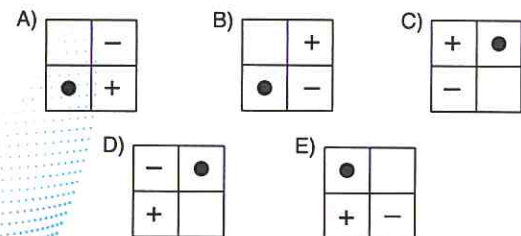
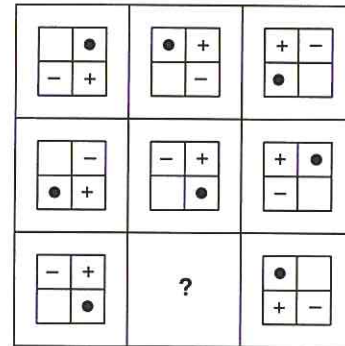
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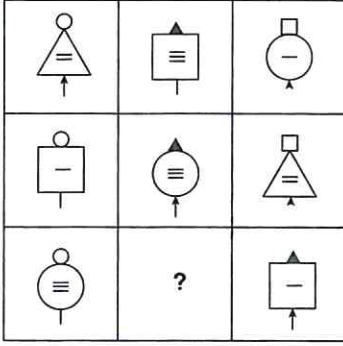
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8.

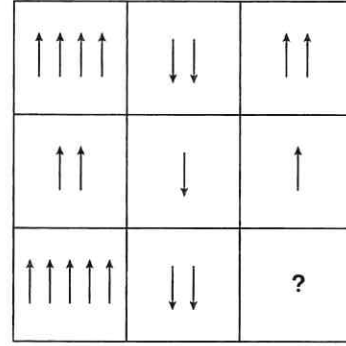


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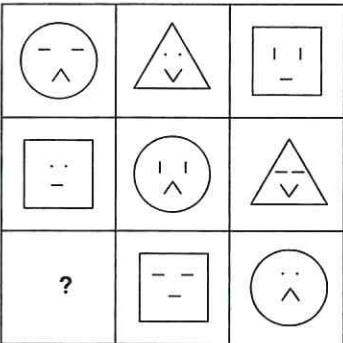
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- B)
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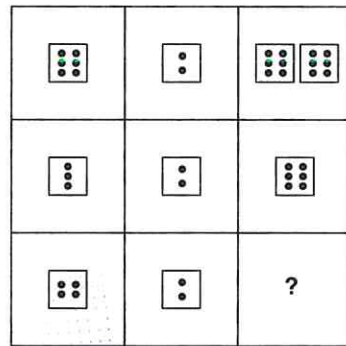
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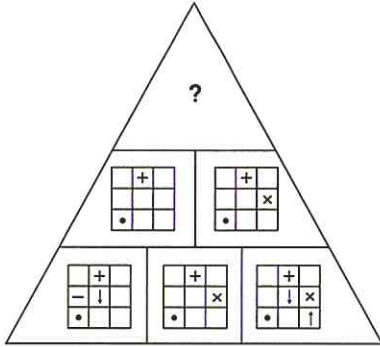
- A)
- B)
- C)
- D)
- E)

4.



- A)
- B)
- C)
- D)
- E)

5.



- A)

+		
-	↓	
•		

 B)

+		
-		x
•		

 C)

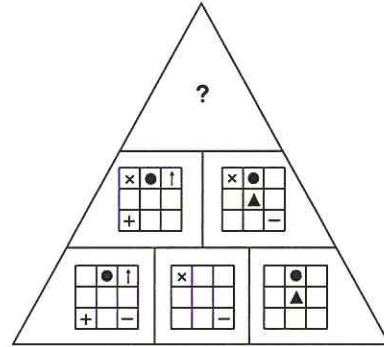
-	↓	
		↑
- D)

+		
•		

 E)

+		
		x
•		

7.



- A)

		↑
	▲	
+		-

 B)

	▲	
+		-

 C)

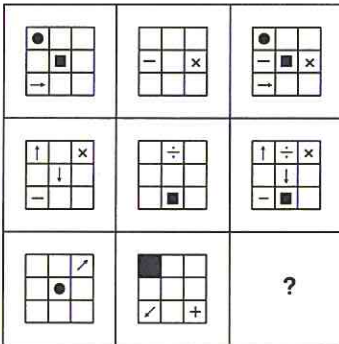
x		
	▲	
-		+
- D)

x		↑
	▲	
		-

 E)

x	•	
	+	
		-

6.



- A)

■		/
+		•
/		+

 B)

■		/
•		+
/		+

 C)

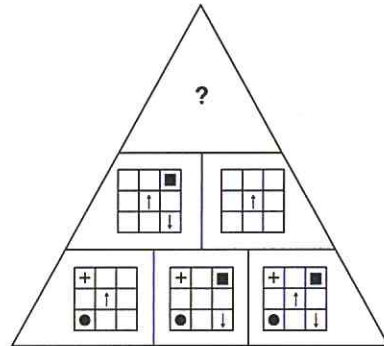
■		/
•		+
/		+
- D)

■		↑
↓	•	+
↓		+

 E)

■		/
•		+
/		+

8.



- A)

		■
•		↓
+		↓

 B)

		■
↑		↓
		↓

 C)

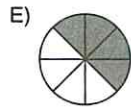
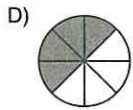
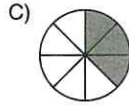
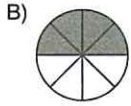
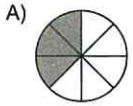
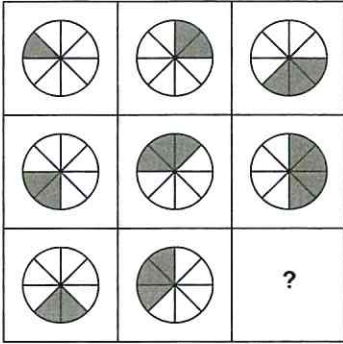
↑		
- D)

+		■
•		↓
+		↓

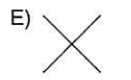
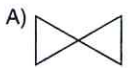
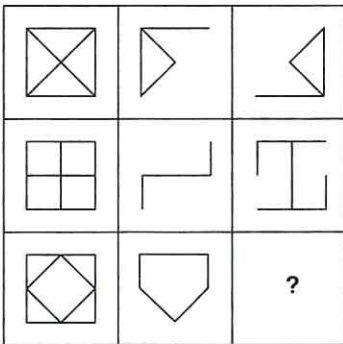
 E)

		■
		↓
		↓

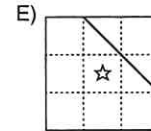
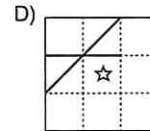
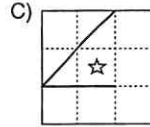
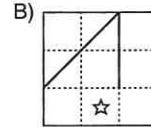
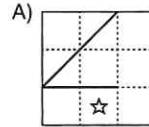
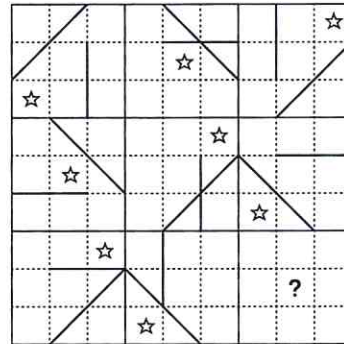
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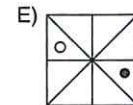
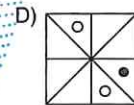
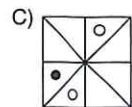
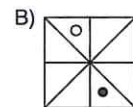
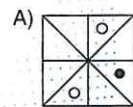
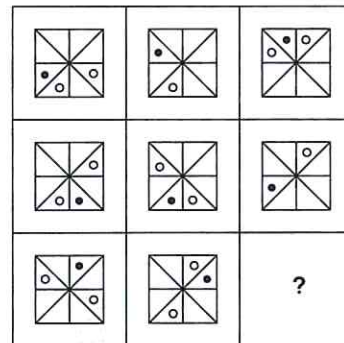
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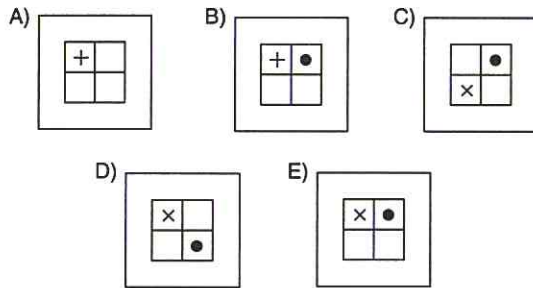
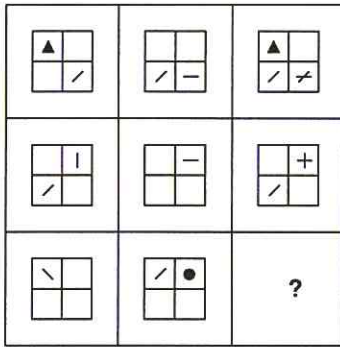
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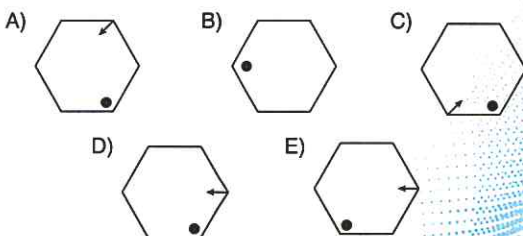
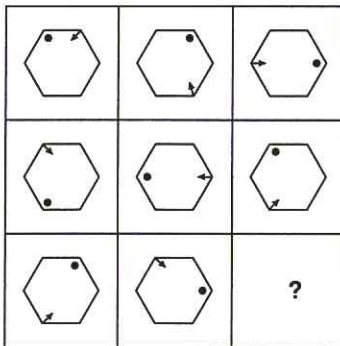
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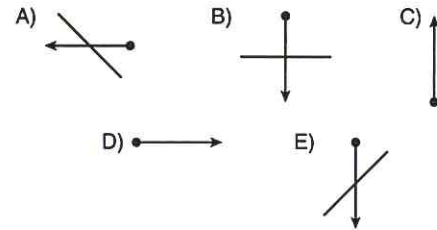
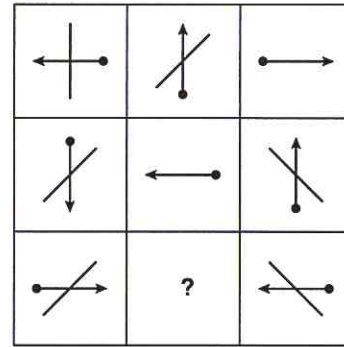
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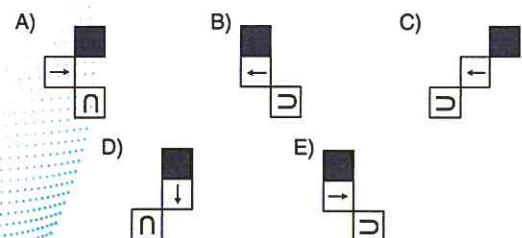
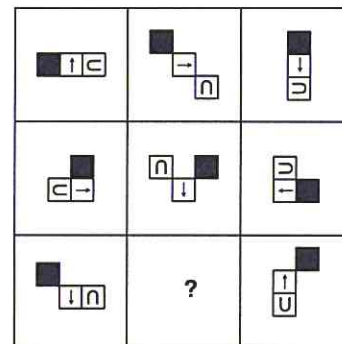
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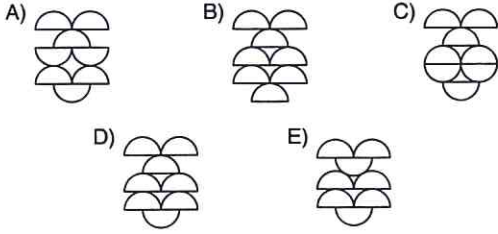
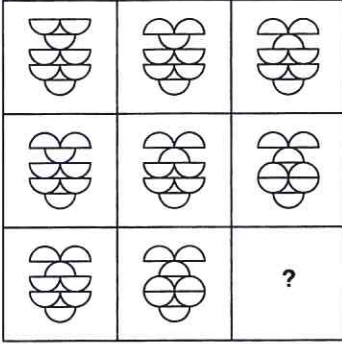
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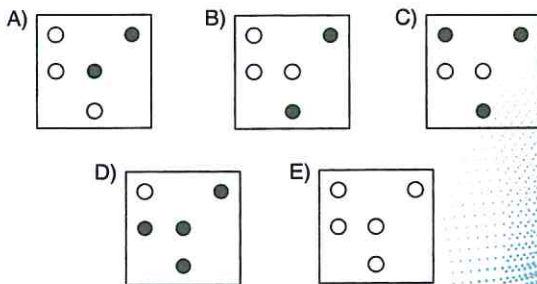
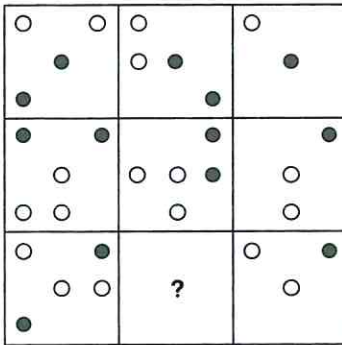
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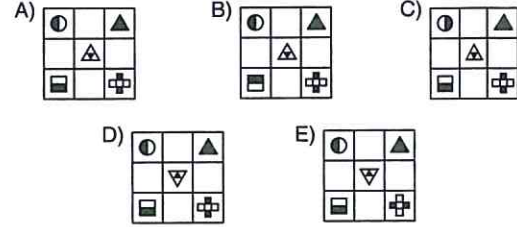
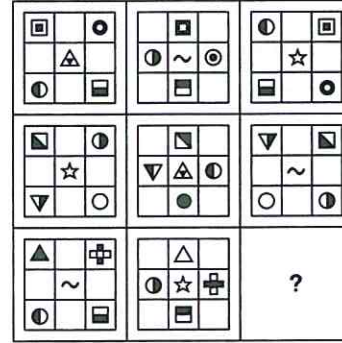
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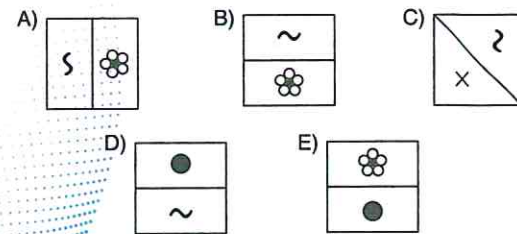
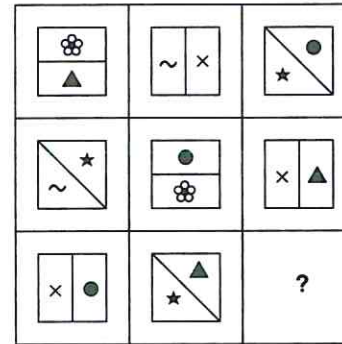
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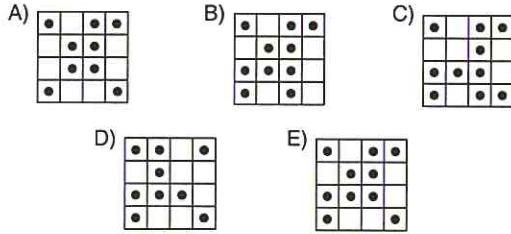
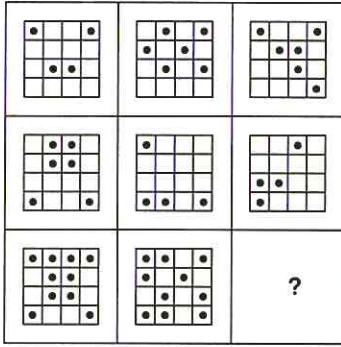
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4.



5.

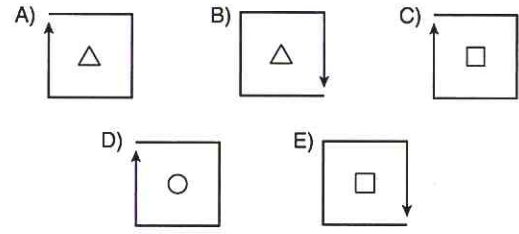
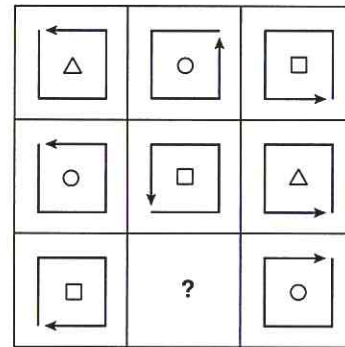


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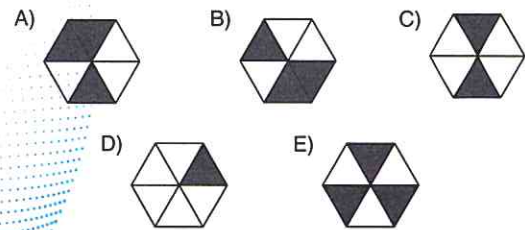
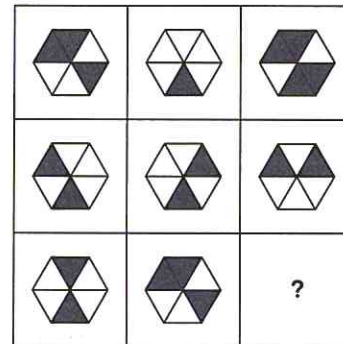
62	97	29
57	57	79
34	43	?



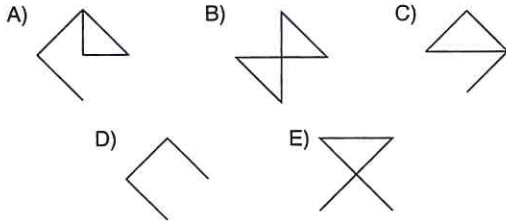
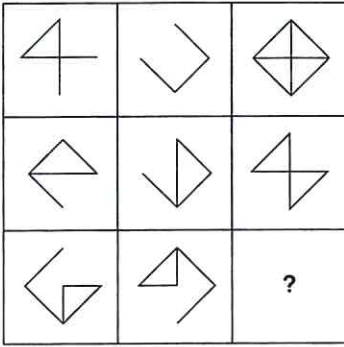
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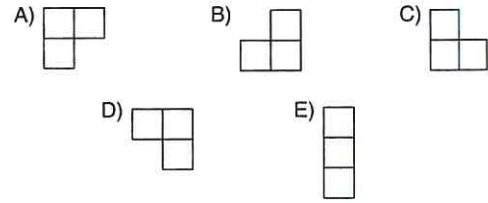
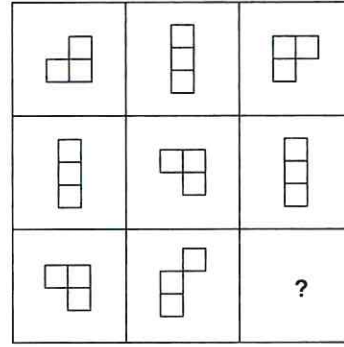
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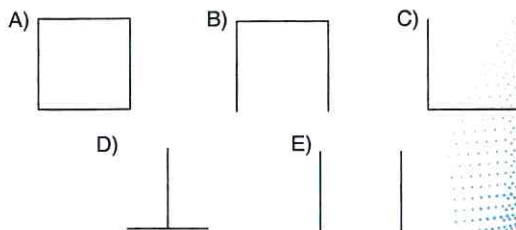
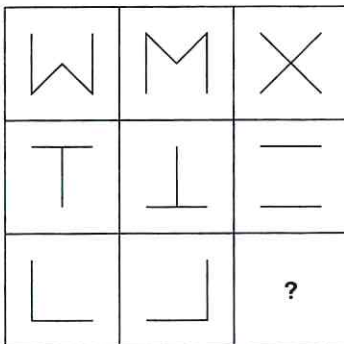
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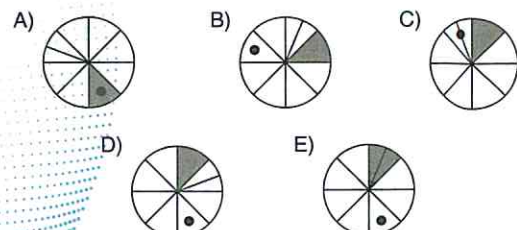
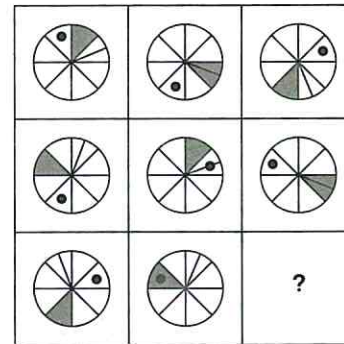
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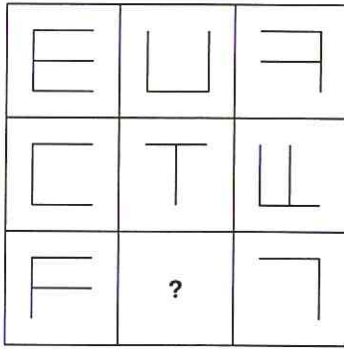
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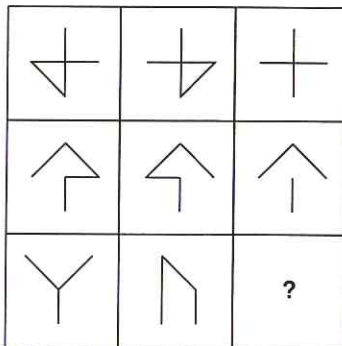


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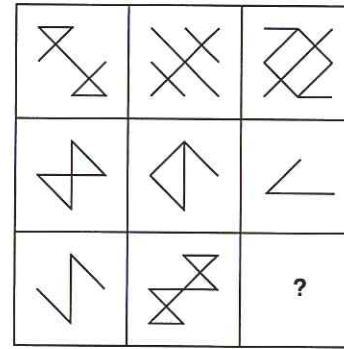
- A)
- B)
- C)
- D)
- E)

6.



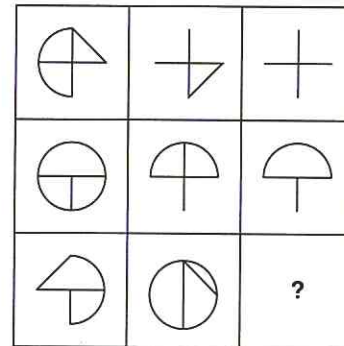
- A)
- B)
- C)
- D)
- E)

7.



- A)
- B)
- C)
- D)
- E)

8.



- A)
- B)
- C)
- D)
- E)

1.

A	A	C	B	C	D	E
C	A	A	B	B	A	E
B	E	C	C	B	D	E
A	D	A	B	A	C	B
D	C	D	E	D	C	D
D	E	A	C	E	E	A
E	B	A	B	A	B	D

	C	C
X	Y	

X		Y
K	L	

⇒ (K, L) = (?, ?)

- A) (D, A) B) (E, D) C) (E, B)
D) (B, A) E) (A, B)

2.

■	△	■	★	●	T	●
+	△	+	△	■	△	★
△	■	■	★	T	X	+
★	X	●	■	△	★	■
★	■	△	■	X	△	■
■	+	★	X	■	★	●
△	●	■	△	T	■	T

	A	B
B	A	

C	D
B	A

⇒ (C, D) = (?, ?)

- A) (★, +) B) (T, x) C) (T, ●)
D) (★, ●) E) (+, ●)

3.

4	7	1	4	4	2	4
3	1	4	7	3	1	6
1	2	3	7	1	6	2
4	8	7	8	8	5	3
2	1	1	5	5	9	1
9	3	4	1	3	6	6
3	1	3	5	1	5	1

A	A
B	A

X	B
B	Y

⇒ X + Y = ?

- A) 6 B) 7 C) 8 D) 9 E) 10

4.

A	E	D	E	E	B	C
F	A	F	A	G	G	F
B	D	A	C	D	E	B
E	C	E	B	B	A	E
C	C	D	F	D	C	C
F	G	A	D	F	A	F
B	B	D	G	C	G	G

F	K
F	
L	

L	K
X	Y

⇒ (X, Y) = ?

- A) (G, A) B) (E, D) C) (C, D)
D) (A, E) E) (G, B)

5.

V	T	D	R	T	M	E
R	E	V	R	L	R	E
D	L	E	M	R	T	V
M	L	T	R	M	V	D
T	D	T	V	L	R	E
D	L	M	E	D	T	V
M	E	L	V	D	M	L

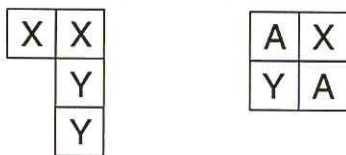


⇒ (X, Y) = ?

- A) (V, M) B) (M, L) C) (E, D)
D) (M, T) E) (E, M)

6.

3	6	8	5	5	9	7
9	4	8	9	3	9	4
6	7	6	7	3	6	6
4	8	3	4	5	8	4
6	4	7	8	5	7	5
9	8	5	6	4	3	7
5	3	9	8	9	7	3

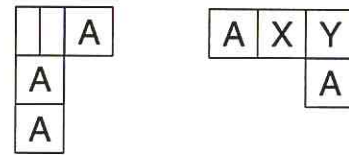


⇒ A² = ?

- A) 16 B) 36 C) 49 D) 64 E) 81

7.

△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△

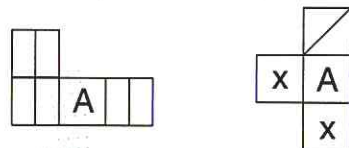


⇒ (X, Y) = ?

- A) (o, /) B) (/, o) C) (/, /)
D) (o, \) E) (/, \)

8.

△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△
△	△	△	△	△	△	△



⇒ X = ?

- A) \ B) / C) —
D) | E) /

1.

▲	○	■	■	┐	▲	Σ
┐	▲	○	Σ	↓	▲	┐
Σ	Σ	○	┐	○	↓	○
○	▲	■	▲	Σ	■	Σ
○	↓	○	▲	Σ	↓	▲
■	▲	↓	Σ	↓	┐	○
○	Σ	┐	○	■	Σ	■

		A
B	B	A
A		
A		

X		Y
	B	
	B	

⇒ (X, Y) = ?

- A) (Σ, ○) B) (▲, ■) C) (┐, ↓)
D) (Σ, ┐) E) (▲, ○)

3.

1	7	7	8	6	6	3
7	8	6	6	5	5	6
7	4	8	4	8	4	4
5	7	9	1	6	1	4
4	4	3	5	9	1	7
9	1	2	5	2	8	2
3	9	7	1	9	7	1

A	B	A
		A

X	B
B	Y

⇒ X . Y = ?

- A) 24 B) 36 C) 40 D) 48 E) 54

4.

A	E	C	E	C	C	E
D	A	D	A	A	G	D
B	F	A	G	B	E	C
C	G	D	D	F	D	C
E	G	C	A	B	E	A
B	B	E	G	E	F	C
A	D	A	C	F	C	F

		L
	K	
B	B	

Y	X
K	L
X	Y

⇒ (X, Y) = ?

- A) (E, C) B) (A, E) C) (E, B)
D) (E, D) E) (B, A)

2.

—	●	—	Z	W	W	Z
—	X	W	X	Z	W	—
X	W	—	●	W	—	Z
W	●	X	—	X	W	●
—	—	Z	—	●	Z	X
X	—	X	●	—	—	—
Z	●	—	Z	W	X	—

A	D	B
C	?	C
B	D	A

- A) — B) / C) ● D) Z

E) W

5.

●	⊗	κ	+	V	+	●
⊗	+	●	●	▼	κ	▼
V	+	V	▼	κ	●	V
κ	●	+	⊗	⊗	κ	+
V	+	●	κ	V	▼	κ
▼	κ	κ	▼	+	●	⊗
+	●	κ	V	▼	+	V

X		
A	B	B
A		

⇒ X = ?

- A) ⊗ B) κ C) ▼ D) + E) V

6.

⊂	●	⊂	⊂	∞	●	☆
⊂	●	∞	∧	⊂	☆	⊂
∞	⊂	⊂	☆	∧	⊂	∞
●	⊂	∧	⊂	☆	∞	☆
☆	●	∞	⊂	∧	⊂	●
●	⊂	⊂	∧	∞	∧	⊂
∞	☆	∧	☆	●	∞	∧

X			Y
	A	B	
A			B

⇒ (X, Y) = ?

- A) (∧, ●) B) (☆, ∞)
D) (●, ☆) E) (●, ⊂)

7.

X	κ	⊗	κ	★	κ	⊗
⊗	⊂	★	■	★	X	★
■	⊂	X	κ	⊂	⊗	■
X	★	κ	⊗	X	κ	★
⊗	■	X	⊗	■	κ	⊗
★	κ	κ	■	★	⊗	⊂
■	⊂	X	⊂	κ	■	X

A	B	A
	B	
A		K

⇒ K = ?

- A) ■ B) X C) ⊂ D) ⊗ E) ★

8.

A	C	D	D	F	G	G
F	F	G	A	B	C	G
E	A	G	E	B	C	C
D	B	A	D	D	A	B
C	E	D	A	B	F	A
C	A	F	D	E	E	F
E	B	G	G	D	A	B

			L		
	K	K		L	K
K					X
					X

⇒ X = ?

- A) C B) D C) E D) F E) G

1.

œ	α	β	œ	α	β	œ
λ	λ	α	ε	β	λ	μ
œ	λ	œ	ε	μ	œ	α
μ	ε	μ	œ	β	α	ε
μ	α	ε	β	α	λ	α
ε	œ	β	œ	λ	ε	œ
β	α	ε	œ	α	ε	λ

ε
ε
A

B	Y
X	A

⇒ (X, Y) = ?

- A) (λ, ε) B) (λ, β) C) (ε, α)
D) (β, α) E) (ε, λ)

3.

⊙	⌘	♀	⚡	♀	♀	⌘
⊗	T	⊗	♀	T	⚡	♀
⚡	♀	♀	⊙	⚡	⊗	⌘
⌘	⊗	⚡	⌘	⊗	⊙	♀
⊙	T	⊗	⊙	⌘	T	⚡
⊗	⚡	⌘	⊗	⚡	T	⊙
⌘	T	⊙	⊙	T	⚡	⊗

B
A
B

X	B
B	Y

⇒ (X, Y) = ?

- A) (T, ♀) B) (⚡, ⌘) C) (T, ⊗)
D) (⌘, ⊙) E) (⚡, ⊙)

2.

4	8	4	5	7	6	9
8	4	9	8	4	7	4
4	5	6	7	5	8	6
7	9	8	3	6	9	7
3	5	3	7	6	7	3
7	8	6	3	9	5	7
9	3	9	3	6	8	9

A
A
C

⇒ B + C = ?

- A) 14 B) 15 C) 16 D) 17 E) 18

4.

°C	Y	°C	Y	§	●
Y	●	°C	Y	§	Y
Y	°C	●	°C	§	Y
●	Y	°C	Y	°C	§
°C	Y	°C	Y	°C	●
°C	Y	°C	Y	°C	Y

A
A
B

B
X
A
B

⇒ X = ?

- A) / B) Y C) \ D) ● E) °C

5.

▲	◆	%	→	▲	%	→
└┐	±	→	±	└┐	→	└┐
±	→	▲	◆	└┐	▲	→
%	└┐	%	└┐	→	±	%
→	±	◆	▲	◆	%	▲
◆	▲	±	└┐	±	→	±
%	→	◆	▲	◆	└┐	◆

	A	
	B	Y
X	A	
	B	

⇒ (X, Y) = ?

- A) (±, ◆) B) (±, ±) C) (◆, ±)
D) (▲, %) E) (% , →)

6.

※	⊕	@	&	↑	⊗	⊕
⊗	@	↑	⊕	&	@	&
↑	⊗	※	⊗	&	↑	※
⊕	↑	※	⊕	⊗	@	⊕
※	↑	&	@	↑	⊗	※
&	※	⊕	&	⊗	⊕	↑
⊕	@	↑	※	⊗	@	※

A	X	
	B	
	B	
		A

⇒ X = ?

- A) ※ B) @ C) & D) ⊗ E) ↑

7.

♠	□	2	2	≈	2	≈
≈	>	□	♠	>	♠	2
>	≈	2	♠	♠	□	>
□	2	≈	2	□	2	≈
♠	>	♠	≈	♠	□	♠
□	□	♠	2	>	≈	>
≈	♠	♠	□	♠	>	♠

	A	
	A	
X	B	
		B

⇒ X = ?

- A) □ B) ≈ C) 2 D) ♠ E) ♠

8.

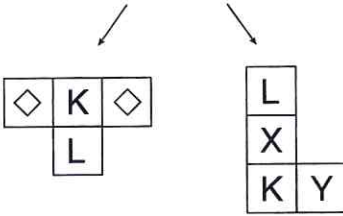
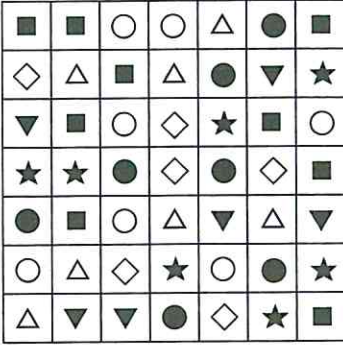
π	Δ	ω	π	Δ	φ	ω
ω	Δ	∩	ε	ω	∩	φ
∩	ε	∩	ε	Δ	∩	φ
φ	π	ω	φ	π	ε	Δ
ε	ε	∩	φ	ω	π	ω
φ	∩	ω	π	ε	Δ	∩
ε	π	Δ	π	∩	π	ω

A	B				
K	B	A			
		L			
			X	K	Y

⇒ (X, Y) = ?

- A) (∩, ε) B) (Δ, ω) C) (∩, ω)
D) (Δ, ε) E) (φ, π)

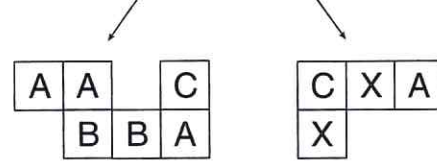
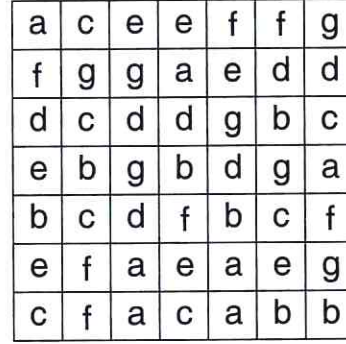
1.



⇒ (X, Y) = ?

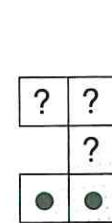
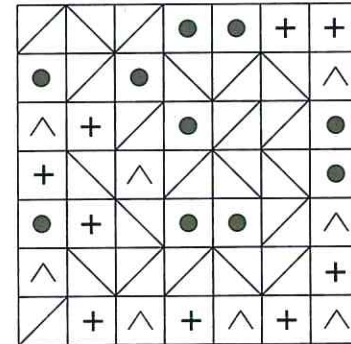
- A) (△, ▽) B) (★, ■) C) (◇, ★)
D) (★, ○) E) (○, ●)

3.



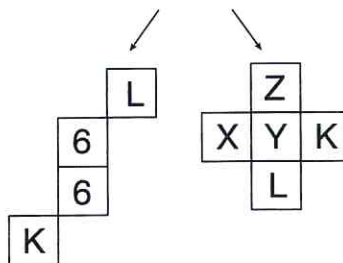
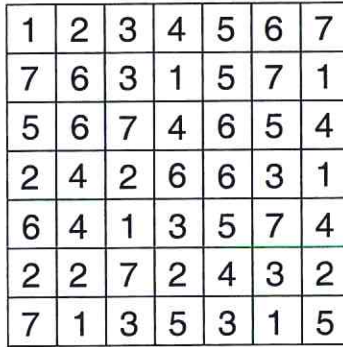
- A) a B) b C) c D) d E) e

4.



- A) B) C)
D) E)

2.



⇒ X + Y + Z = ?

- A) 7 B) 8 C) 9 D) 10 E) 11

5.

~	Δ	*	≈	○	+	*
*	≈	Δ	○	*	+	≈
+	○	≈	○	*	Δ	~
*	≈	~	~	≈	+	Δ
○	*	+	+	*	≈	○
Δ	~	+	Δ	Δ	+	~
Δ	○	~	≈	~	○	+

A	B
A	B

	X	
B	Y	A

⇒ (X, Y) = ?

- A) (*, ~) B) (+, ~) C) (Δ, +)
D) (Δ, ≈) E) (+, ≈)

6.

α	θ	∧	ε	∧	θ	β
θ	∧	ε	α	∧	β	ϑ
θ	ε	ϑ	α	θ	ε	∧
ϑ	ϑ	ε	β	α	ε	θ
θ	β	ϑ	∧	θ	ϑ	β
β	ϑ	ε	α	∧	β	ϑ
α	∧	β	ϑ	α	ε	α

	B	
A	A	B

Y		
	B	
	B	X

⇒ (X, Y) = ?

- A) (α, β) B) (θ, ∧) C) (α, ε)
D) (ϑ, ε) E) (θ, ε)

7.

C	A	N	E	R	Y	S
R	C	R	E	A	Y	N
E	R	A	C	Y	S	A
E	S	N	A	S	A	Y
A	N	E	S	N	C	E
S	C	R	C	Y	E	Y
Y	S	N	N	R	C	R

A	N	E
▲	C	R

		▲	
	▲		X ₁
▲		X ₂	

(X₁, X₂) = ?

- A) (E, S) B) (E, C) C) (N, C)
D) (Y, C) E) (Y, S)

8.

+	★	▼	*	ε	★	*
●	+	K	●	ε	*	●
*	▼	K	+	▼	K	●
★	ε	ε	●	ε	★	K
*	▼	*	K	*	+	+
ε	K	●	+	★	▼	ε
▼	●	★	▼	+	+	★

	A	
B	+	C
	A	

	C	
X	Y	
	C	

(X, Y) = ?

- A) (★, ε) B) (*, ε) C) (*, K)
D) (ε, +) E) (★, K)

●	A	B	C	D	E
A	B	C	D	E	A
B	C	D	E	A	B
C	D	E	A	B	C
D	E	A	B	C	D
E	A	B	C	D	E

1. $(A \bullet C) \bullet (D \bullet E) = ?$

- A) A B) B C) C D) D E) E

2. $[(C \bullet E) \bullet B] \bullet (A \bullet D) = ?$

- A) E B) D C) C D) B E) A

3. $[(B \bullet (D \bullet E))] \bullet [(A \bullet D) \bullet C] = ?$

- A) B B) C C) D D) E E) A

4. $[(A \bullet C) \bullet (B \bullet D)] \bullet [(E \bullet A) \bullet (B \bullet A)] = ?$

- A) C B) D C) E D) A E) B

▲	1	2	3	4	5
1	4	5	1	2	3
2	5	1	2	3	4
3	1	2	3	4	5
4	2	3	4	5	1
5	3	4	5	1	2

5. $(1 \blacktriangle 3) \blacktriangle (5 \blacktriangle 2) \blacktriangle (4 \blacktriangle 4) = ?$

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

6. $[(5 \blacktriangle 2) \blacktriangle 3] \blacktriangle (1 \blacktriangle 5) = ?$

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

7. $[(3 \blacktriangle (4 \blacktriangle 1))] \blacktriangle [(2 \blacktriangle 2) \blacktriangle 4] = ?$

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

8. $[(5 \blacktriangle 1) \blacktriangle (2 \blacktriangle 3)] \blacktriangle [(1 \blacktriangle 2) \blacktriangle (4 \blacktriangle 4)] = ?$

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

●	♠	♣	■	▲	★	▼
♠	■	▲	★	▼	♠	♣
♣	▲	★	▼	♠	♣	■
■	★	▼	♠	♣	■	▲
▲	▼	♠	♣	■	▲	★
★	♠	♣	■	▲	★	▼
▼	♣	■	▲	★	▼	♠

9. $[(♠●▼)●(▲●★)]●(■●♠) = ?$

- A) ▼ B) ♠ C) ▲ D) ■ E) ♣

10. $(♣●★)●[(▲●♠)●(▼●■)] = ?$

- A) ♠ B) ■ C) ▲ D) ♣ E) ★

11. $[(♠●★)●(♣●♠)]●[(▲●■)●(★●★)] = ?$

- A) ♣ B) ▲ C) ★ D) ■ E) ♠

12. $[(▲●▼)●(♣●♠)]●[(■●▼)●(▲●▲)] = ?$

- A) ▼ B) ♠ C) ♣ D) ★ E) ▲

★	A	B	C	D	E	F
A	E	F	A	B	C	D
B	F	A	B	C	D	E
C	A	B	C	D	E	A
D	B	C	D	E	A	B
E	C	D	E	A	B	C
F	D	E	A	B	C	D

13. $(F★A)★(E★C) = ?$

- A) B B) E C) F D) A E) C

14. $[(A★A)★B]★(C★C) = ?$

- A) D B) E C) F D) A E) C

15. $[(D★D)★(C★E)★A]★D = ?$

- A) B B) A C) D D) E E) F

16. $[(B★D)★(C★F)]★[(E★E)★(A★A)] = ?$

- A) C B) B C) E D) F E) A

□	4	5	6	7	8	9
4	5	6	7	8	9	4
5	6	7	8	9	4	5
6	7	8	9	4	5	6
7	8	9	4	5	6	7
8	9	4	5	6	7	8
9	4	5	6	7	8	9

■	A	B	C	D	E	F
A	C	D	E	F	A	B
B	D	E	F	A	B	C
C	E	F	A	B	C	D
D	F	A	B	C	D	E
E	A	B	C	D	E	F
F	B	C	D	E	F	A

1. $[(5 \square 5) \square (5 \square 8)] \square 4 = ?$

- A) 4 B) 5 C) 6 D) 7 E) 9

2. $[(6 \square 5) \square 4] \square (7 \square 8) = ?$

- A) 9 B) 7 C) 6 D) 8 E) 4

3. $[(7 \square 9) \square (9 \square 4)] \square (8 \square 8) = ?$

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

4. $[(5 \square 5) \square (7 \square 4)] \square [(6 \square 6) \square 9] = ?$

- A) 6 B) 5 C) 4 D) 9 E) 7

5. $(? \blacksquare A) \blacksquare (B \blacksquare E) = F$

- A) E B) F C) C D) D E) A

6. $[(C \blacksquare A) \blacksquare (E \blacksquare ?)] \blacksquare (A \blacksquare B) = (D \blacksquare E)$

- A) B B) C C) E D) A E) F

7. $[(B \blacksquare E) \blacksquare D] \blacksquare [? \blacksquare (C \blacksquare F)] = A \blacksquare (B \blacksquare C)$

- A) D B) B C) E D) F E) A

8. $[(A \blacksquare D) \blacksquare ?] \blacksquare [(E \blacksquare F) \blacksquare (E \blacksquare B)] = A$

- A) A B) B C) C D) D E) E

★	A	B	C	D	E	F
A	A	B	C	D	E	F
B	B	C	D	E	F	A
C	C	D	E	F	A	B
D	D	E	F	A	B	C
E	E	F	A	B	C	D
F	F	A	B	C	D	E

△	1	2	3	4	5	6
1	5	6	1	2	3	4
2	6	1	2	3	4	5
3	1	2	3	4	5	6
4	2	3	4	5	6	1
5	3	4	5	6	1	2
6	4	5	6	1	2	3

9. $[(F ★ A) ★ (B ★ B)] ★ (C ★ E) = ?$

- A) E B) B C) F D) C E) A

10. $[(E ★ ?) ★ B] ★ (D □ B) = E$

- A) B B) E C) F D) D E) C

11. $[(C ★ A) ★ (E ★ D)] ★ [(C ★ ?) ★ (B ★ B)] = (E ★ F)$

- A) A B) E C) B D) C E) D

12. $[(A ★ E) ★ (? ★ C)] ★ (D ★ D) = (E ★ A) ★ B$

- A) F B) E C) D D) C E) B

13. $[(6 △ 6) △ (2 △ 3)] △ (5 △ 1) = ?$

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

14. $[(1 △ 3) △ (2 △ 3)] △ (? △ 3) = 5$

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

15. $[(? △ 5) △ (2 △ 5)] △ [(1 △ 5) △ (4 △ 1)] = (2 △ 2)$

- A) 5 B) 6 C) 1 D) 2 E) 3

16. $[(3 △ 3) △ (? △ 1)] △ [(5 △ 3) △ (2 △ 1)] = (5 △ 1) △ 4$

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

Δ	A	B	C	D	E	F
A	B	C	D	E	F	A
B	C	D	E	F	A	B
C	D	E	F	A	B	C
D	E	F	A	B	C	D
E	F	A	B	C	D	E
F	A	B	C	D	E	F

$\bullet$	Δ	$\blacksquare$	$\star$	$\square$	$\blacktriangle$	+
Δ	$\star$	$\square$	$\blacktriangle$	+	Δ	$\blacksquare$
$\blacksquare$	$\square$	$\blacktriangle$	+	Δ	$\blacksquare$	$\star$
$\star$	$\blacktriangle$	+	Δ	$\blacksquare$	$\star$	$\square$
$\square$	+	Δ	$\blacksquare$	$\star$	$\square$	$\blacktriangle$
$\blacktriangle$	Δ	$\blacksquare$	$\star$	$\square$	$\blacktriangle$	+
+	$\blacksquare$	$\star$	$\square$	$\blacktriangle$	+	Δ

1. $[(B \Delta ?) \Delta (A \Delta A)] \Delta E = F$

- A) B B) C C) D D) E E) F

2. $(D \Delta ?) \Delta [(F \Delta C) \Delta (B \Delta E)] = (C \Delta A)$

- A) C B) F C) E D) D E) A

3. $[(A \Delta F) \Delta ?] \Delta [(E \Delta E) \Delta (C \Delta B)] = (A \Delta D)$

- A) D B) E C) F D) A E) B

4. $[(F \Delta A) \Delta (E \Delta B)] \Delta [(C \Delta C) \Delta (? \Delta A)] = C \Delta (B \Delta B)$

- A) E B) F C) A D) B E) C

5. $(\Delta \bullet \star) \bullet [(\square \bullet \blacktriangle) \bullet \Delta] = ?$

- A) $\blacktriangle$ B) + C) Δ D) $\blacksquare$ E) $\star$

6. $[(? \bullet \Delta) \bullet +] \bullet (\square \bullet \blacksquare) = \star \bullet \star$

- A) Δ B) $\blacksquare$ C) $\star$ D) $\square$ E) $\blacktriangle$

7. $[(+ \bullet \star) \bullet (? \bullet \Delta)] \bullet [(\blacksquare \bullet +) \bullet +] = (+ \bullet +)$

- A) $\square$ B) $\blacktriangle$ C) + D) $\star$ E) $\blacksquare$

8. $[(\Delta \bullet \blacktriangle) \bullet (\blacksquare \bullet \square)] \bullet [\star \bullet (\Delta \bullet +)] = (? \bullet \star)$

- A) + B) Δ C) $\blacksquare$ D) $\star$ E) $\square$

★	ε	x	T	R	+	*
ε	+	*	ε	x	T	R
x	*	ε	x	T	R	+
T	ε	x	T	R	+	*
R	x	T	R	+	*	ε
+	T	R	+	*	ε	x
*	R	+	*	ε	x	T

Δ	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙
⊙	⊙	⊙	⊙	⊙	⊙	⊙

9. $(T ★ R) ★ [(ε ★ +) ★ *] = ?$

- A) ε B) x C) T D) R E) +

10. $[(* ★ ?) ★ (ε ★ x)] ★ (T ★ x) = (ε ★ R)$

- A) + B) R C) T D) ★ E) ε

11. $[(R ★ x) ★ (* ★ T)] ★ [(? ★ ε) ★ T] = (* ★ *)$

- A) x B) T C) R D) + E) *

12. $[T ★ (x ★ R)] ★ [(? ★ *)] ★ [(ε ★ ε)] = (* ★ R)$

- A) R B) + C) * D) ε E) x

13. $[(⊙ Δ ⊙) Δ ⊙] Δ (⊙ Δ ⊙) = ?$

- A) ⊙ B) ⊙ C) ⊙ D) ⊙ E) ⊙

14. $[(⊙ Δ ⊙) Δ (? Δ ⊙)] Δ (⊙ Δ ⊙) = (⊙ Δ ⊙)$

- A) ⊙ B) ⊙ C) ⊙ D) ⊙ E) ⊙

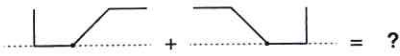
15. $[(⊙ Δ ⊙) Δ (⊙ Δ ⊙)] Δ [(⊙ Δ ?) Δ ⊙] = (⊙ Δ ⊙)$

- A) ⊙ B) ⊙ C) ⊙ D) ⊙ E) ⊙

16. $[(⊙ Δ ⊙) Δ (⊙ Δ ⊙)] Δ [(⊙ Δ ⊙) Δ (⊙ Δ ?)] = ⊙$

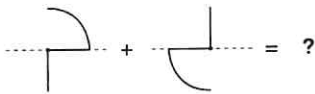
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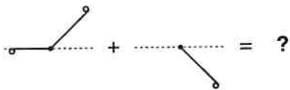
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2.



- A) B) C) D) E)

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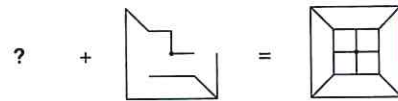
- A) B) C) D) E)

4.



- A) B) C) D) E)

5.

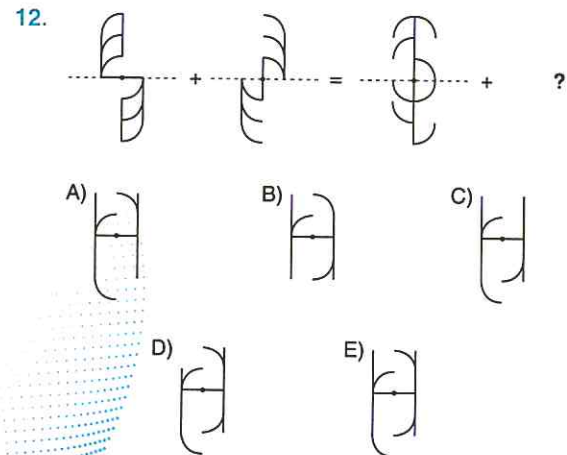
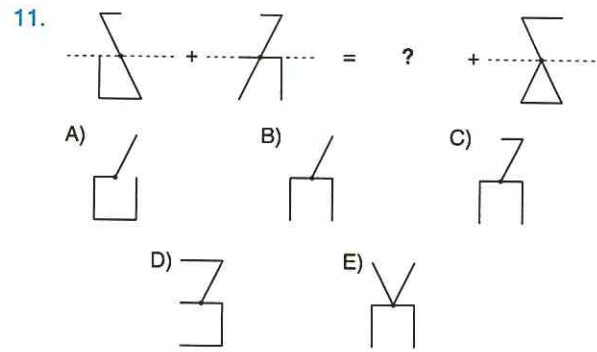
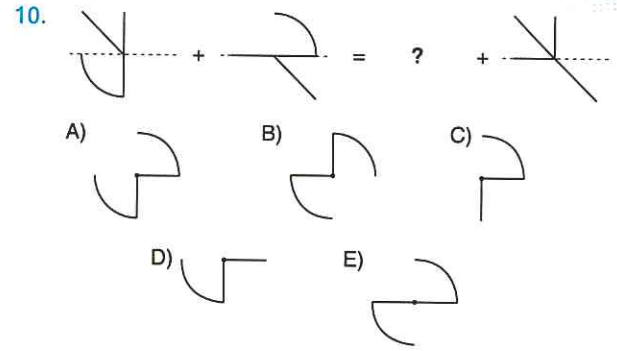
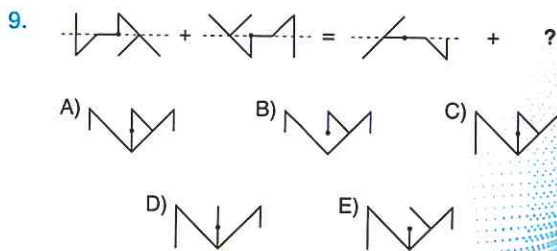
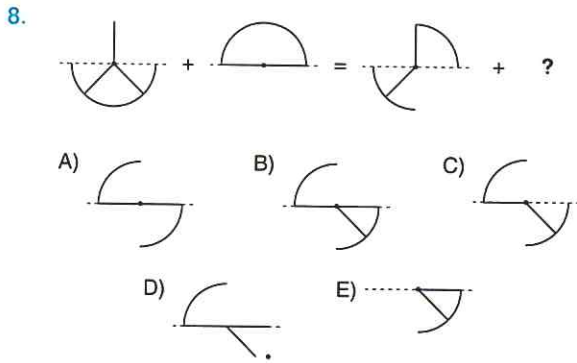
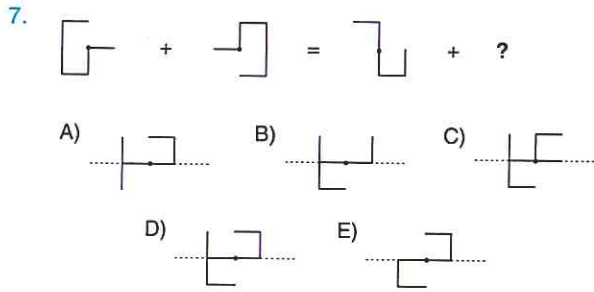


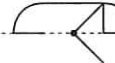
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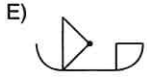
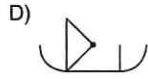
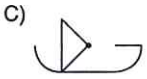
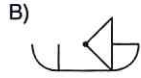
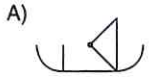
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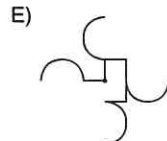
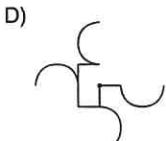
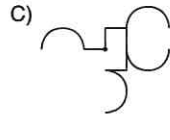
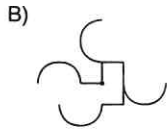
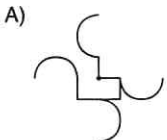
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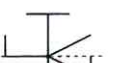


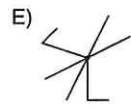
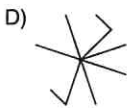
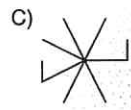
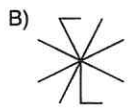
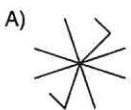
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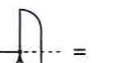


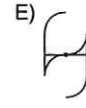
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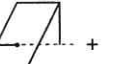


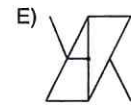
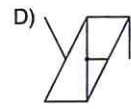
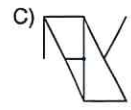
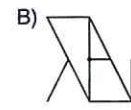
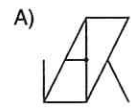
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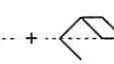
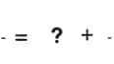


4.  +  = ? + 



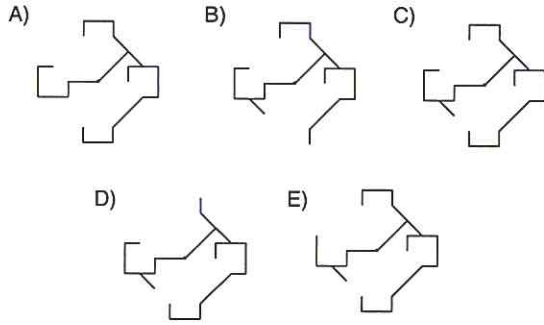
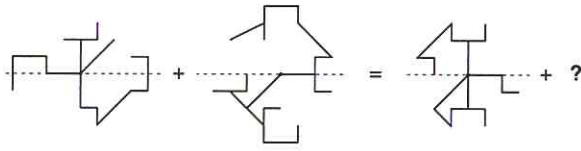
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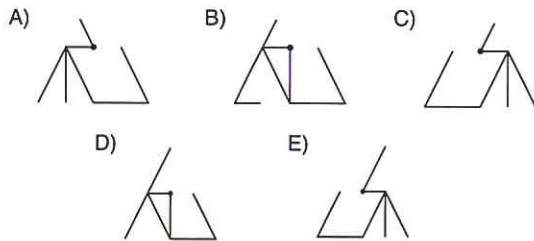
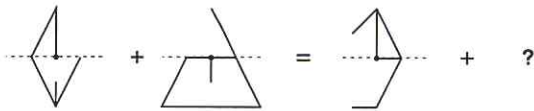
6.  +  = ? + 



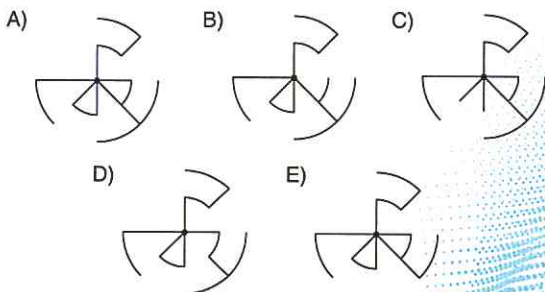
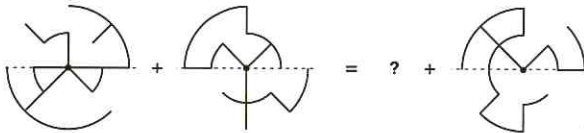
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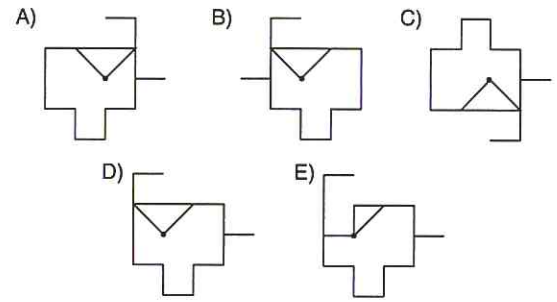
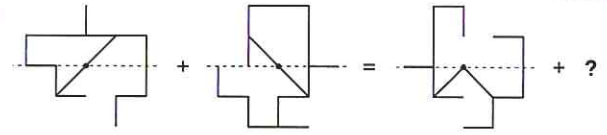
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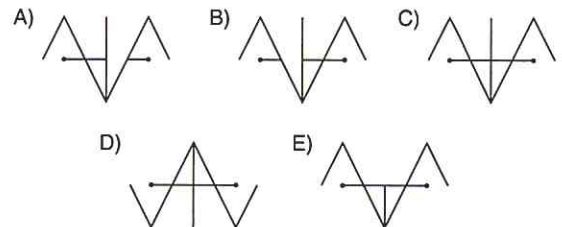
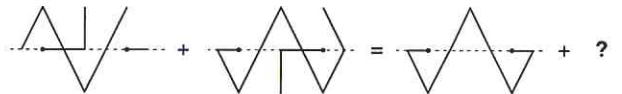
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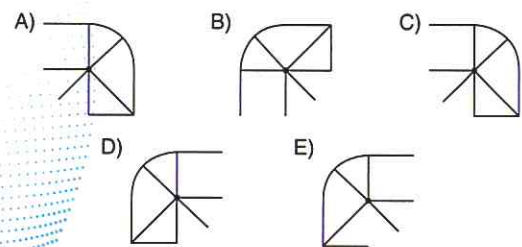
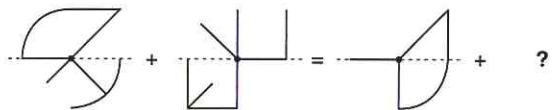
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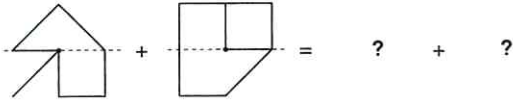
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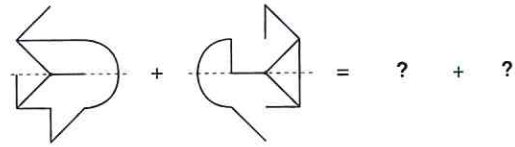


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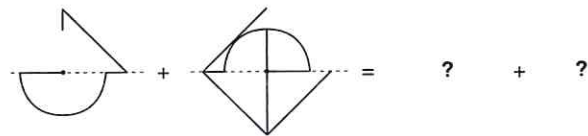
- A) + B) +
- C) + D) +
- E) +

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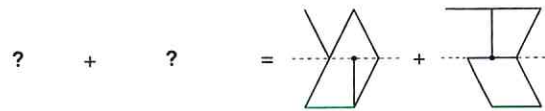
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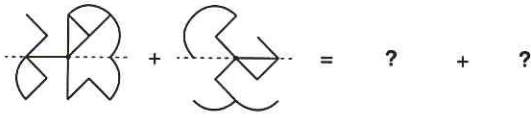
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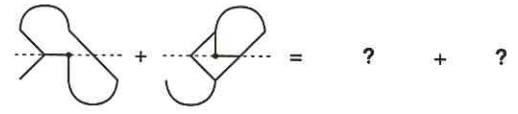
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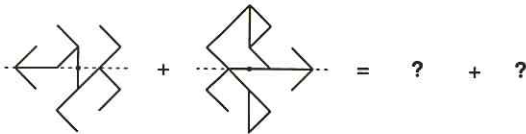
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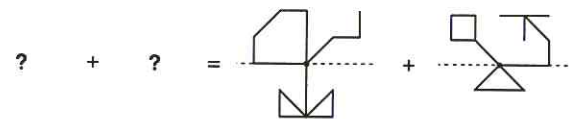
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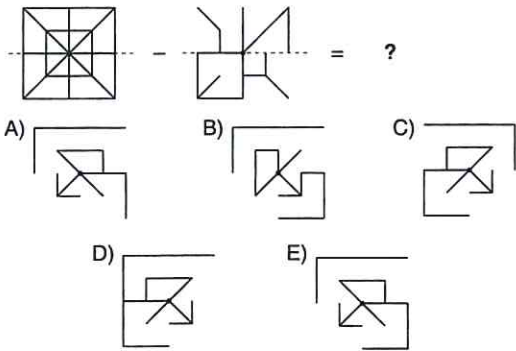
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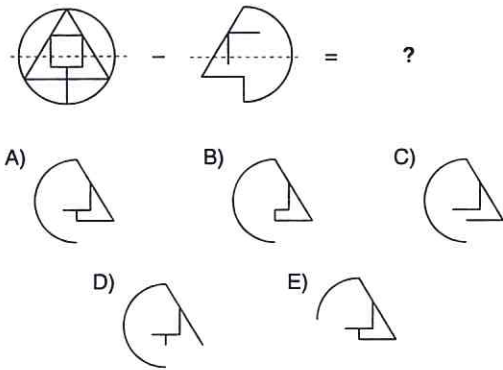


- A) B)
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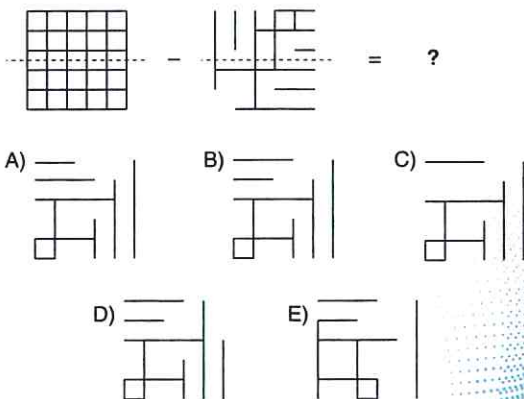
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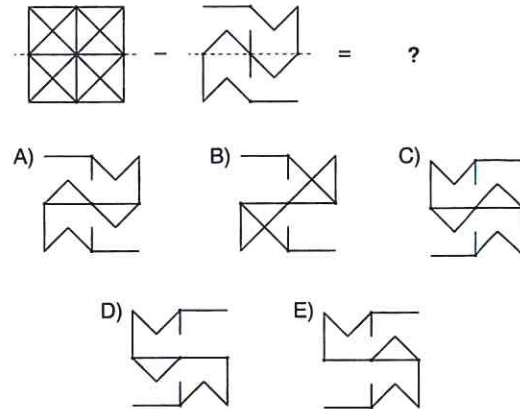
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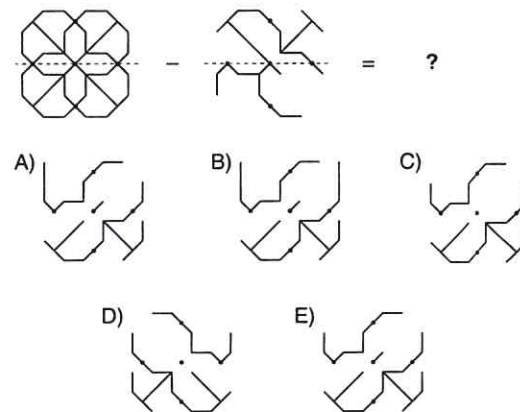
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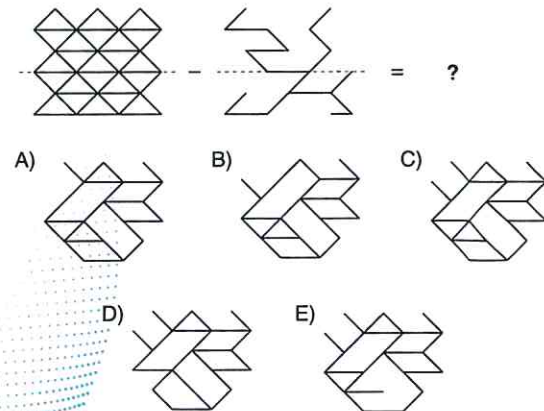
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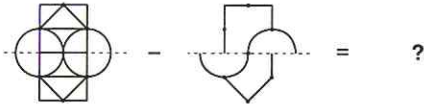
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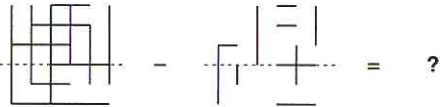


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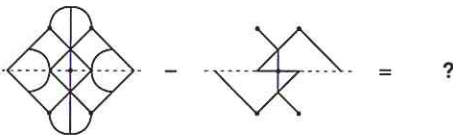
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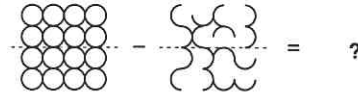
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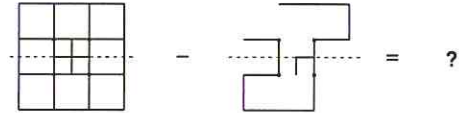
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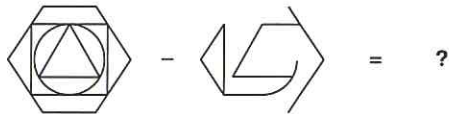
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11.



- A) B) C)
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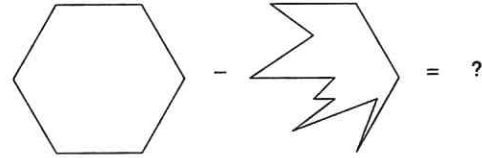
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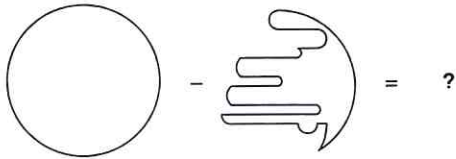
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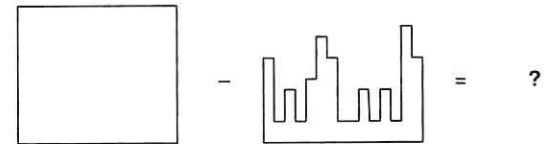
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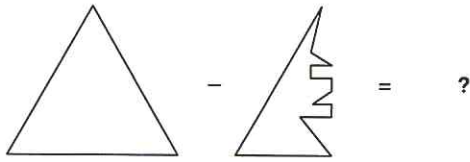
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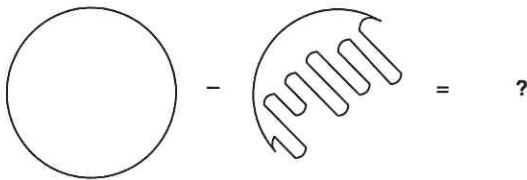
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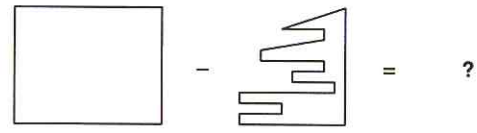
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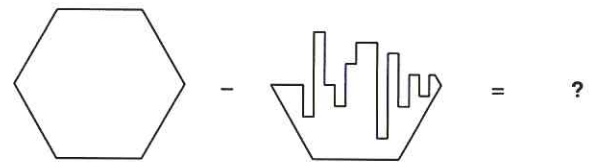
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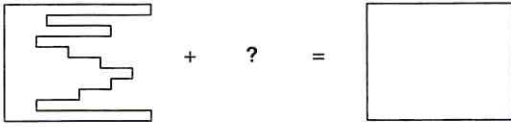
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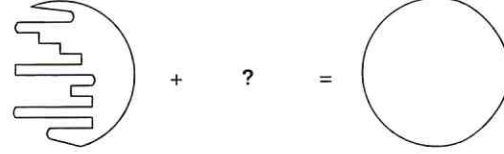
- A) B) C) D) E)

1.



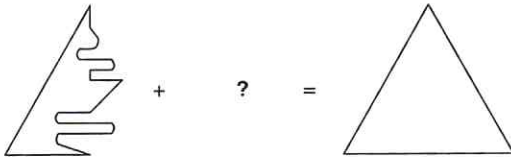
- A)
- B)
- C)
- D)
- E)

3.



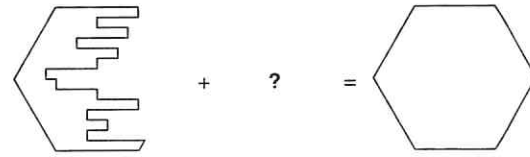
- A)
- B)
- C)
- D)
- E)

2.



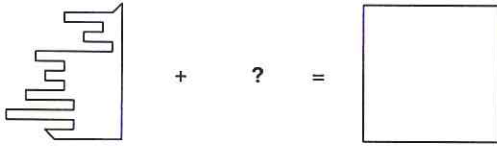
- A)
- B)
- C)
- D)
- E)

4.



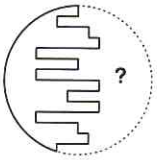
- A)
- B)
- C)
- D)
- E)

5.



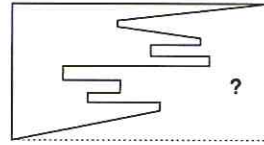
- A) B) C) D) E)

6.



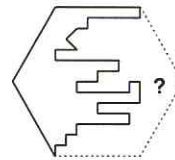
- A) B) C) D) E)

7.



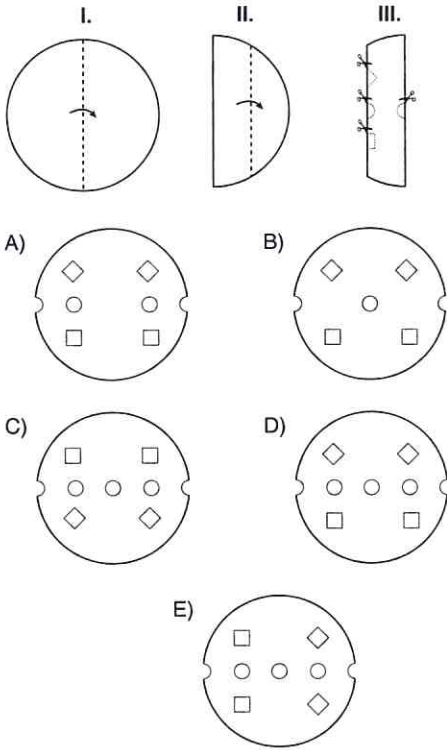
- A) B) C) D) E)

8.

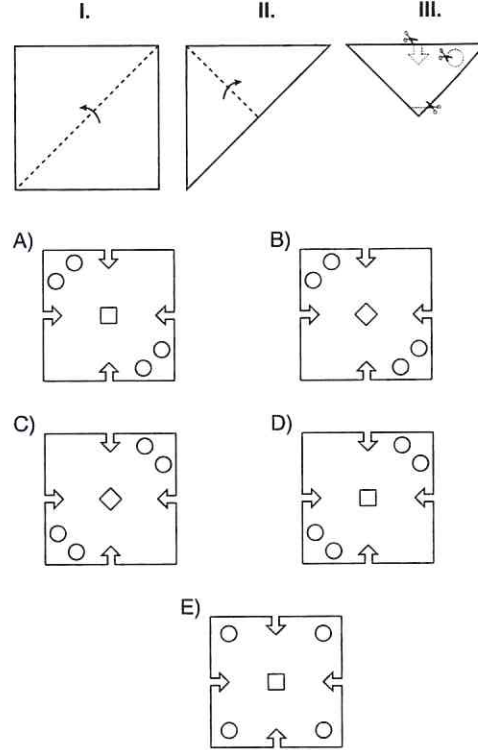


- A) B) C) D) E)

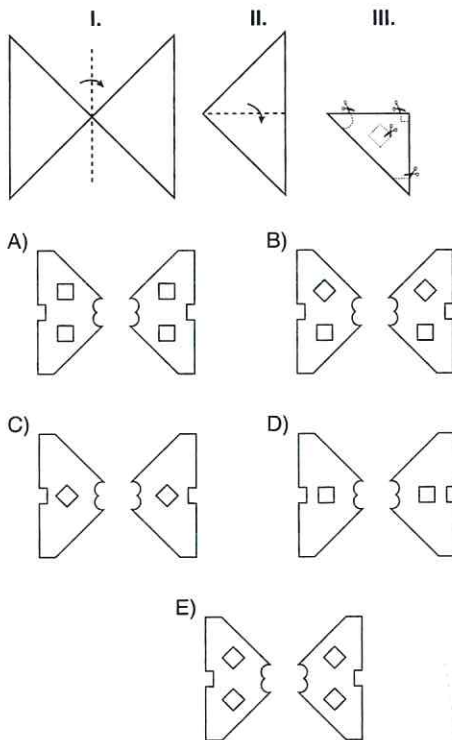
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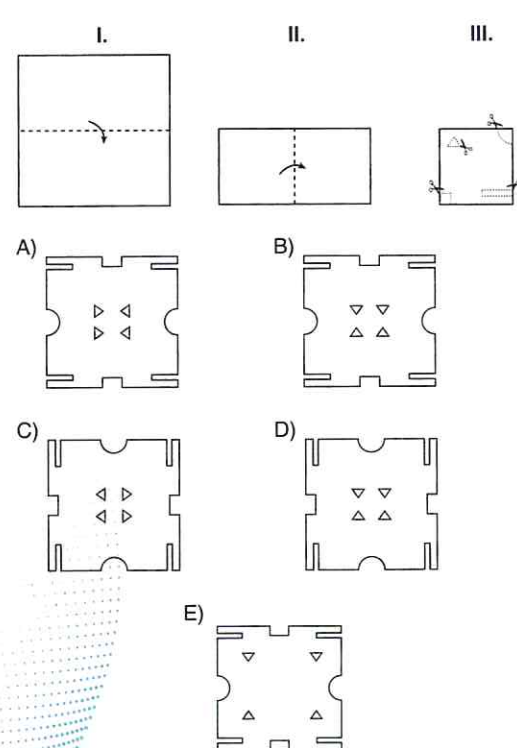
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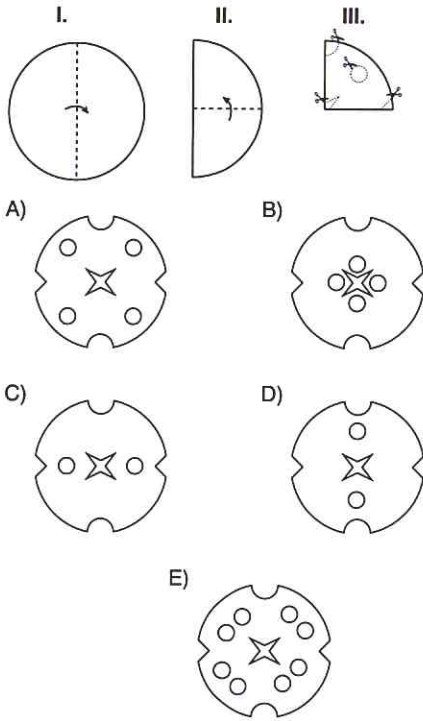
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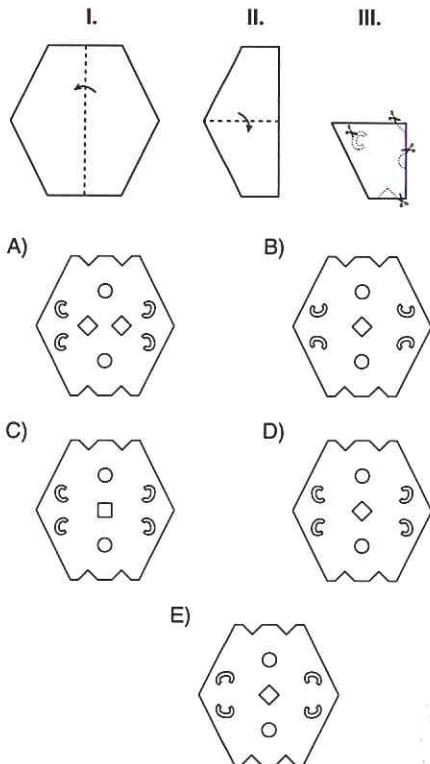
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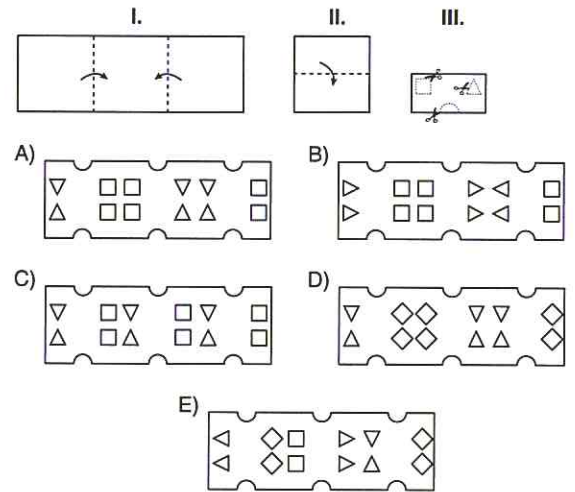
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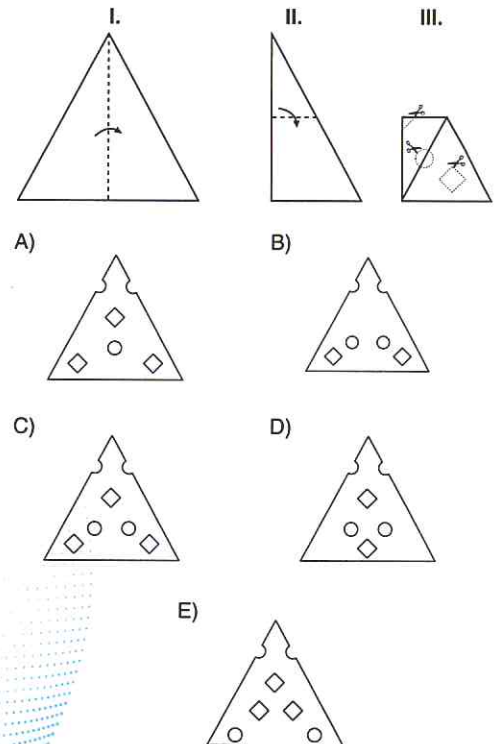
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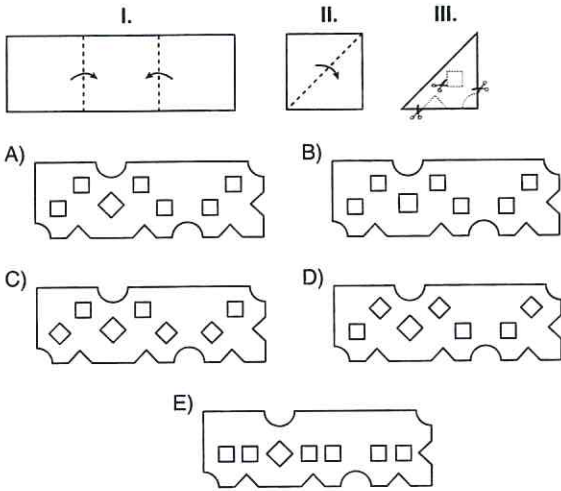
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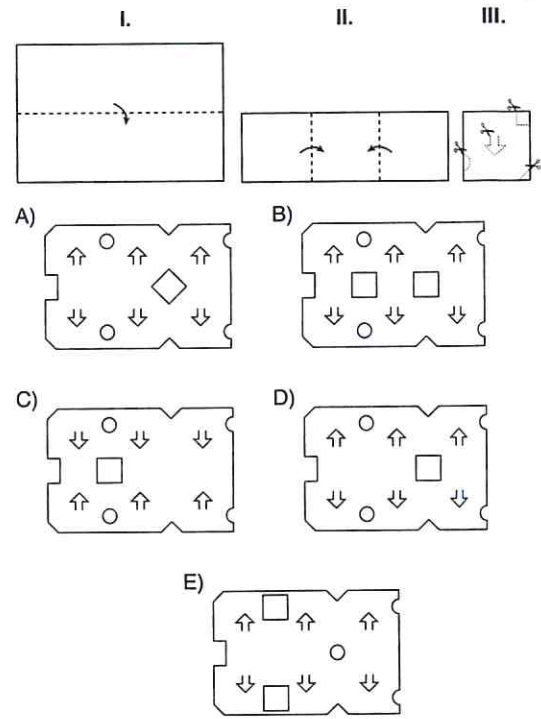
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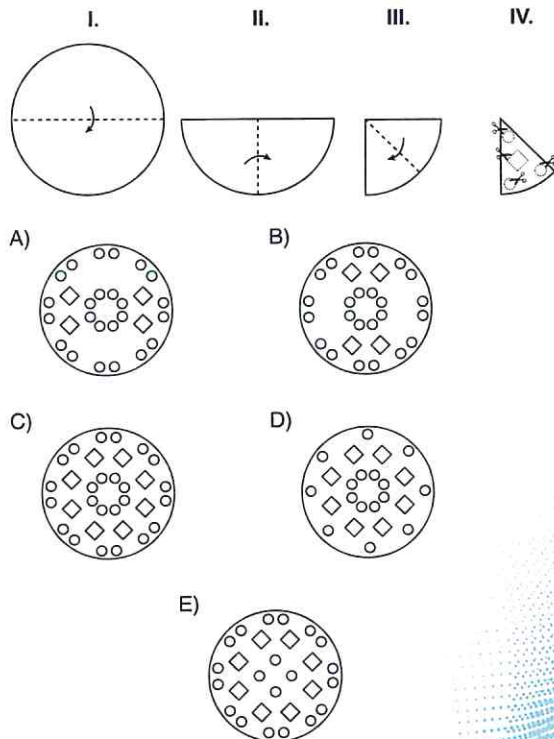
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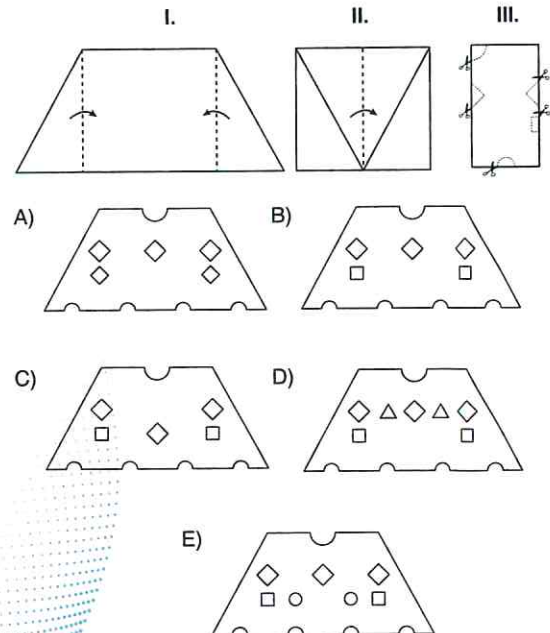
3.



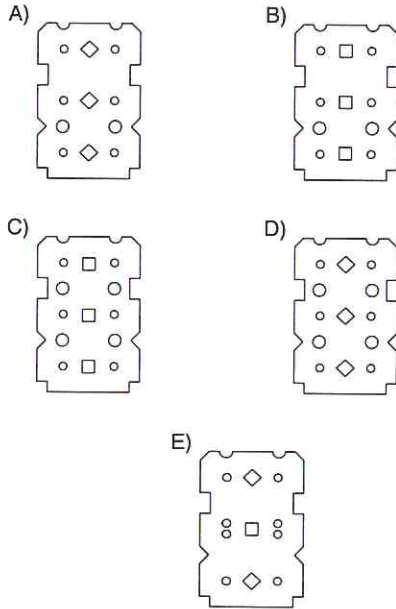
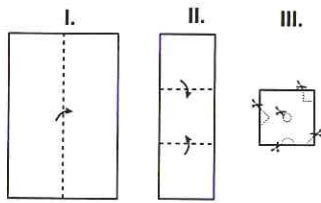
2.



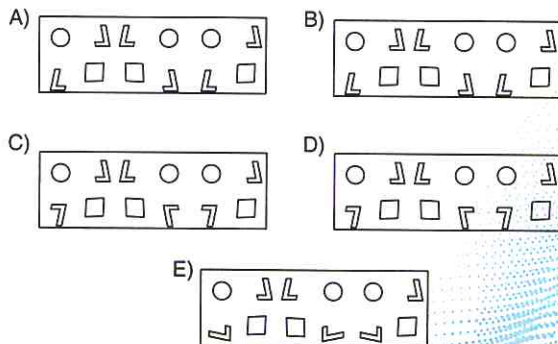
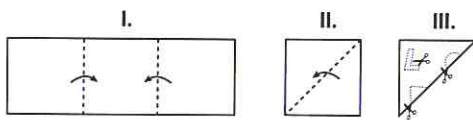
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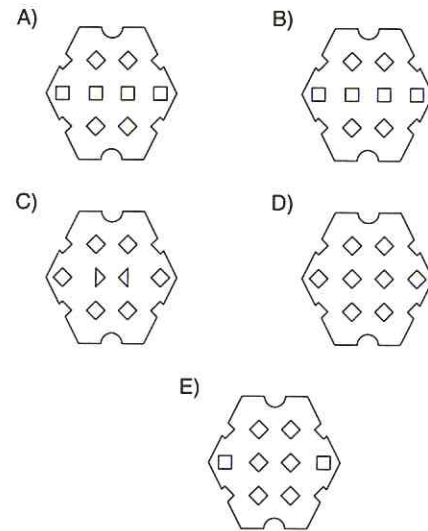
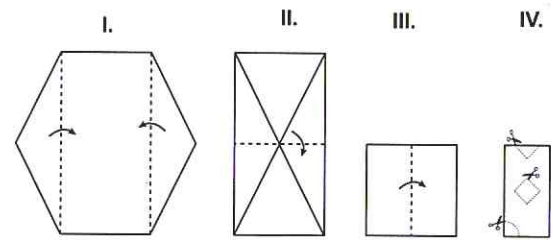
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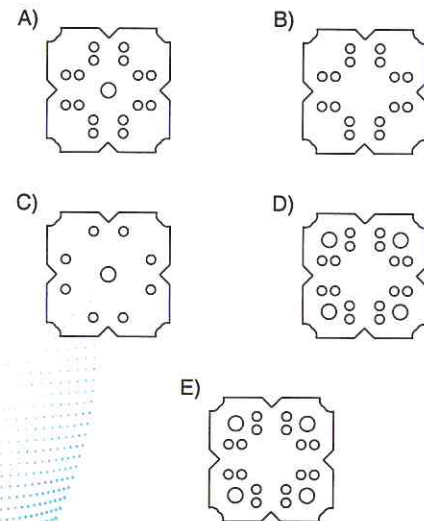
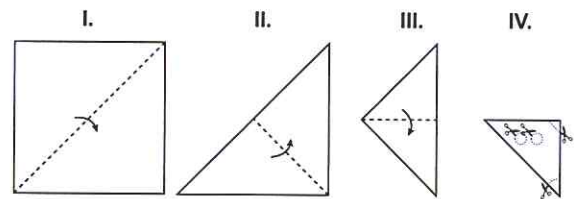
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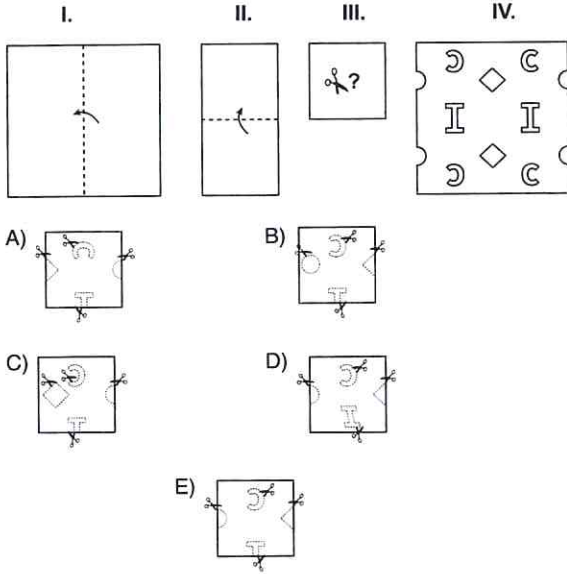
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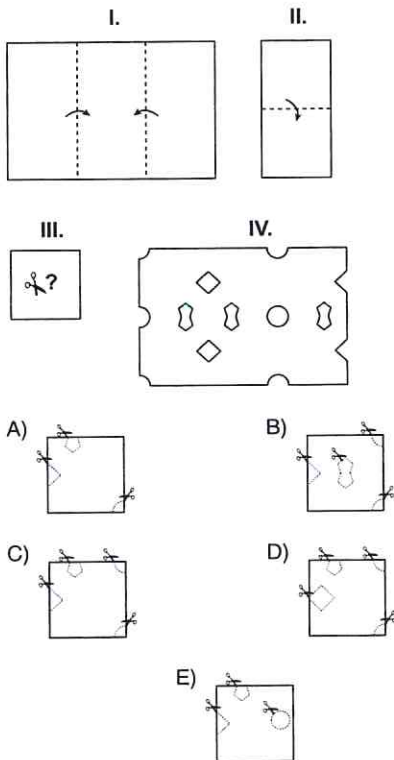
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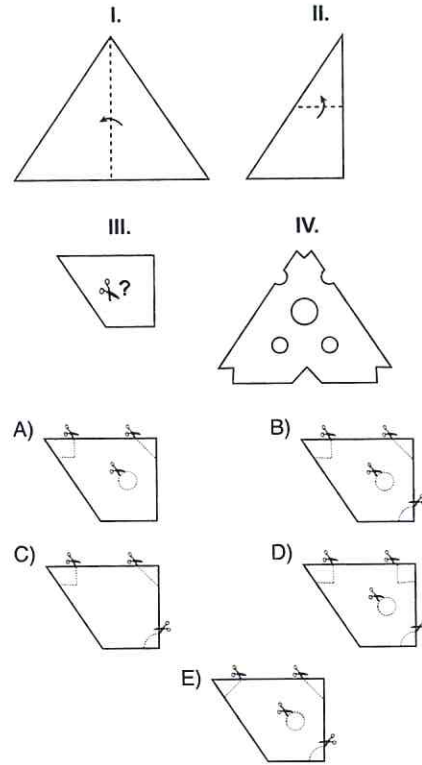
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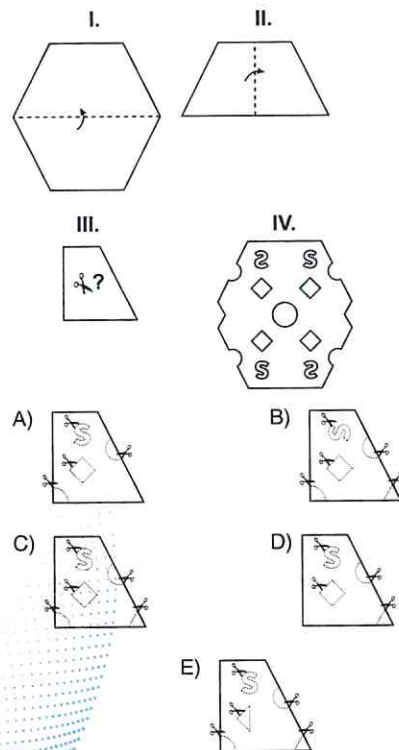
2.



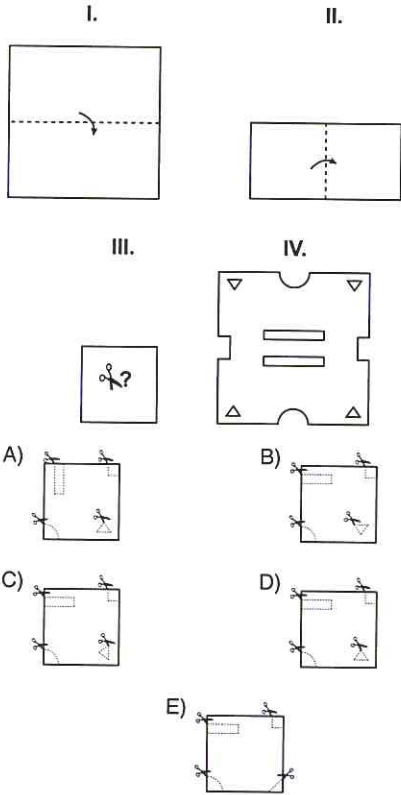
3.



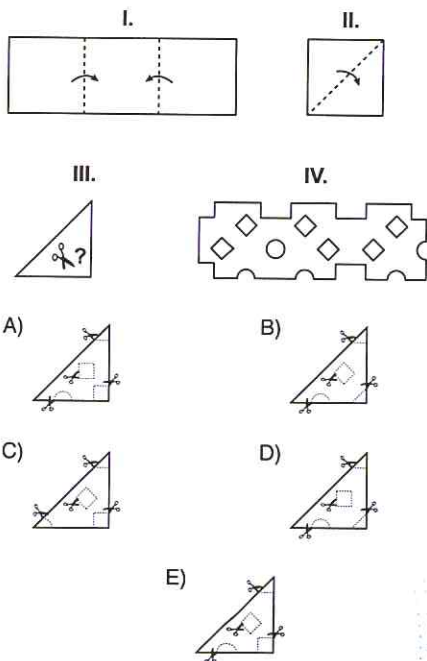
4.



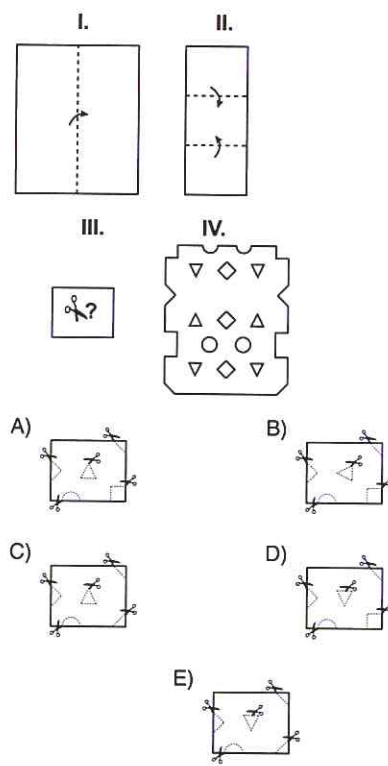
5.



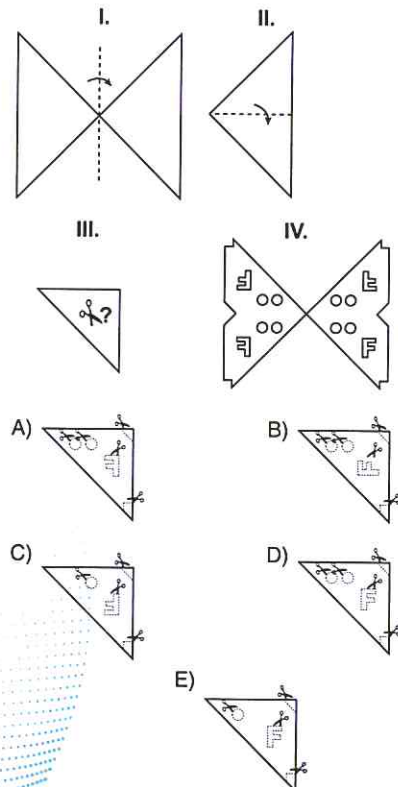
6.



7.



8.





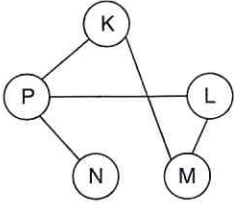
ŞEKİL BAĞLANTILARI

LINKS IN FIGURE

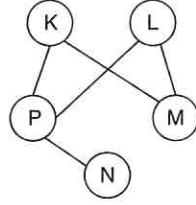
4
TEST
Tests

47
SORU
Questions

ÖRNEK / EXAMPLE



Şekil I
Figure I



Şekil II
Figure II

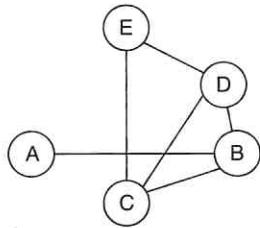
K, L, M, N ve P harfleri I. şekildeki gibi birbirine bağlanmıştır. I. şekildeki bağlantı sayıları ve birbirine bağlanan harfler değişmemek koşuluyla II. şekil elde edilmiştir.

Letters K, L, M, N and P are linked as in Figure I. Figure II has been constructed so as not to change which letters are linked to which, and the number of links made with each letter, in Figure I.

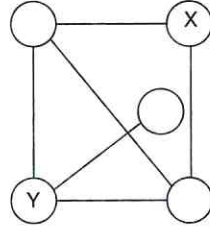
Aşağıda verilen soruları örnekte verilen kurala göre cevaplayınız.

Answer the following questions according to the given rule in example

1.



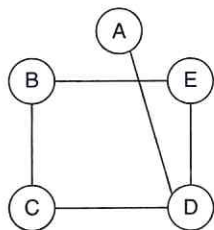
⇒



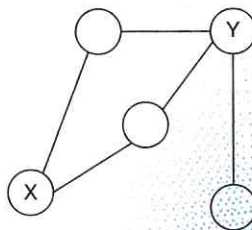
⇒ X, Y = ?, ?

- A) E, C B) B, C C) E, B
D) A, E E) B, D

2.



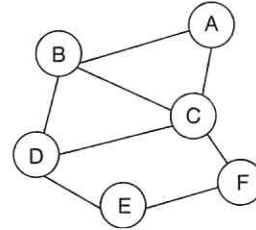
⇒



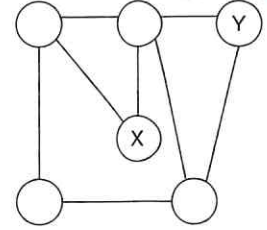
⇒ X, Y = ?, ?

- A) B, D B) B, A C) C, B
D) D, B E) B, E

3.



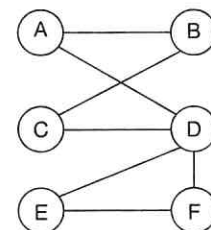
⇒



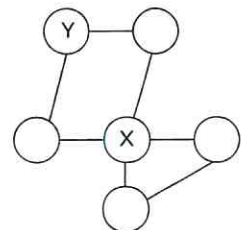
⇒ X, Y = ?, ?

- A) C, B B) A, B C) F, B
D) E, D E) A, F

4.



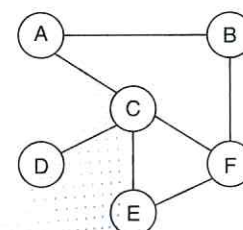
⇒



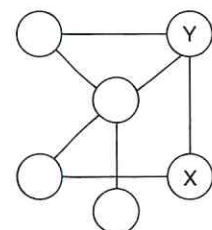
⇒ X, Y = ?, ?

- A) C, F B) D, A C) E, D
D) D, B E) B, A

5.



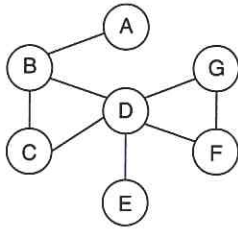
⇒



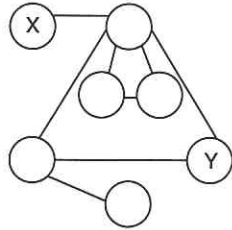
⇒ X, Y = ?, ?

- A) F, E B) A, D C) B, F
D) B, C E) A, E

6.



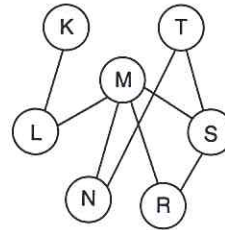
⇒



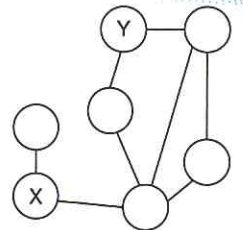
⇒ X, Y = ?, ?

- A) G, A B) B, G C) E, A
D) E, C E) E, F

9.



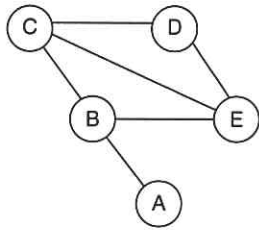
⇒



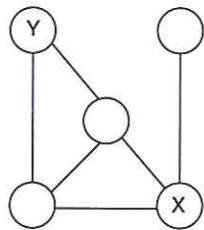
⇒ X, Y = ?, ?

- A) S, R B) T, R C) L, T
D) L, N E) K, L

7.



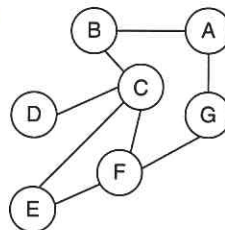
⇒



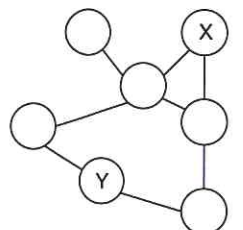
⇒ X, Y = ?, ?

- A) A, C B) A, B C) D, E
D) A, D E) B, D

10.



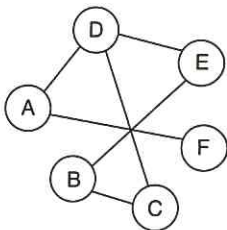
⇒



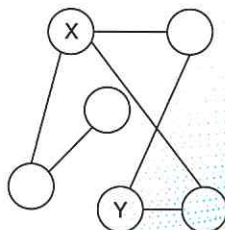
⇒ X, Y = ?, ?

- A) D, G B) E, B C) B, C
D) E, A E) A, C

8.



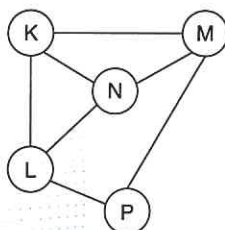
⇒



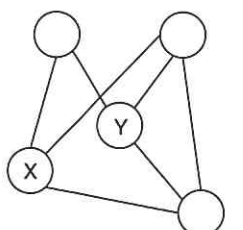
⇒ X, Y = ?, ?

- A) D, B B) B, E C) E, C
D) D, A E) B, F

11.



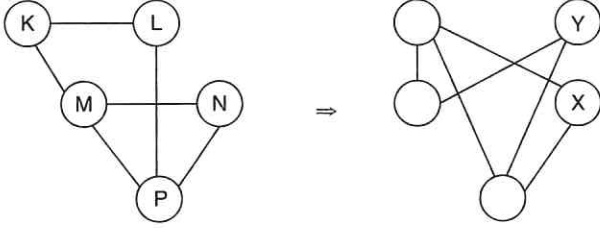
⇒



⇒ X, Y = ?, ?

- A) P, L B) L, M C) L, N
D) K, P E) N, K

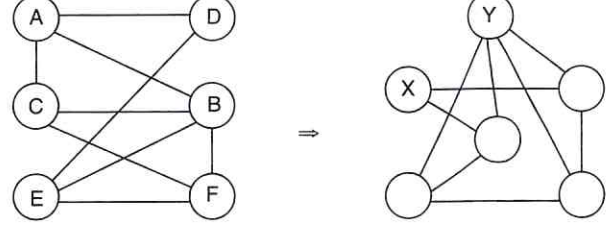
1.



⇒ X, Y = ?, ?

- A) M, N B) N, P C) M, L
D) L, N E) L, K

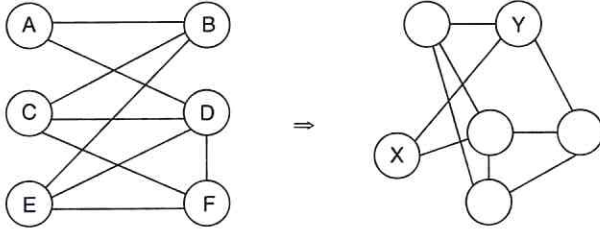
4.



⇒ X, Y = ?, ?

- A) B, E B) D, B C) E, B
D) A, D E) D, C

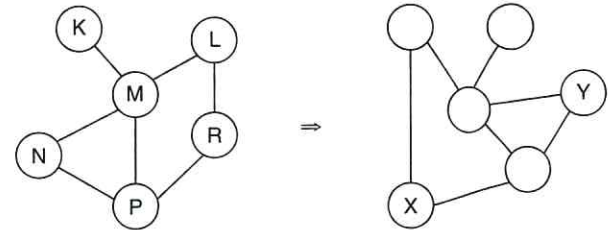
2.



⇒ X, Y = ?, ?

- A) E, F B) A, C C) B, D
D) A, B E) B, E

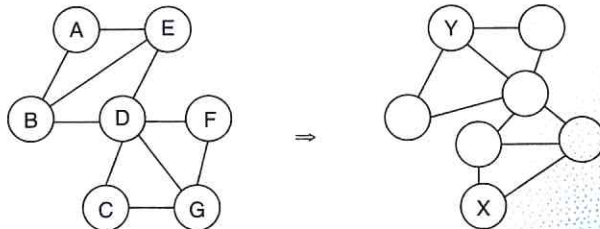
5.



⇒ X, Y = ?, ?

- A) R, N B) P, R C) N, M
D) R, M E) K, L

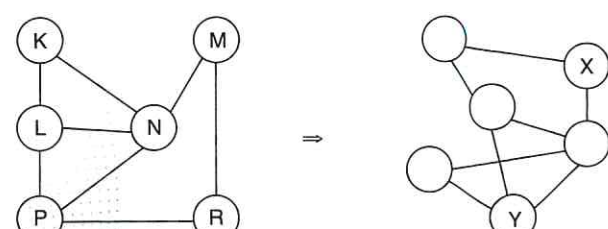
3.



⇒ X, Y = ?, ?

- A) A, E B) B, D C) C, G
D) E, F E) A, G

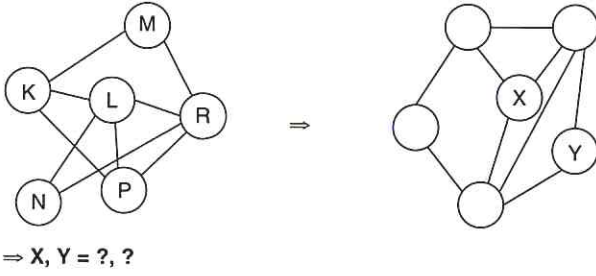
6.



⇒ X, Y = ?, ?

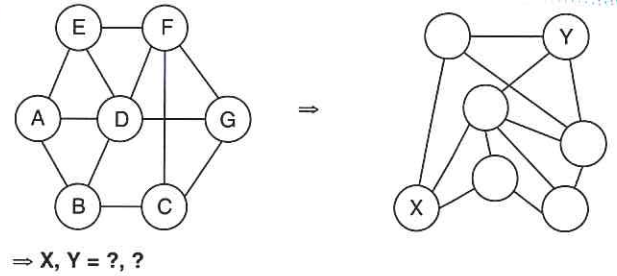
- A) K, N B) P, R C) L, N
D) M, P E) M, L

7.



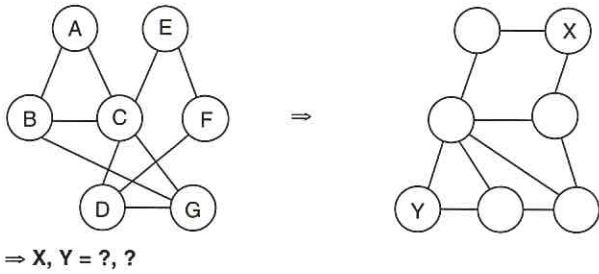
- A) P, N B) L, N C) P, K
D) R, N E) P, M

10.



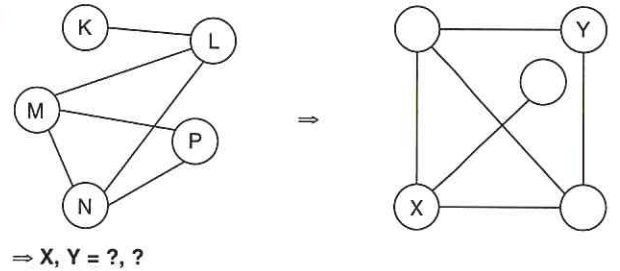
- A) B, G B) B, C C) D, G
D) A, G E) B, E

8.



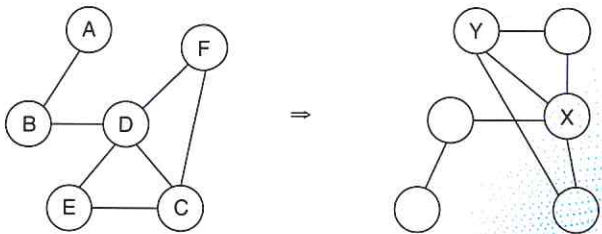
- A) G, D B) F, B C) B, C
D) B, A E) F, A

11.



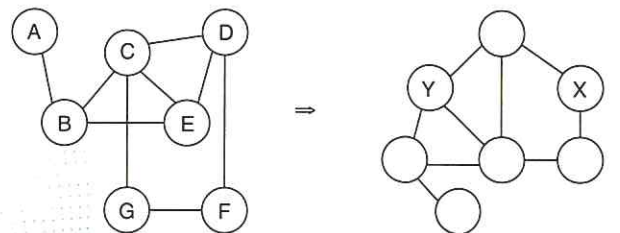
- A) M, P B) L, P C) K, P
D) N, P E) L, K

9.



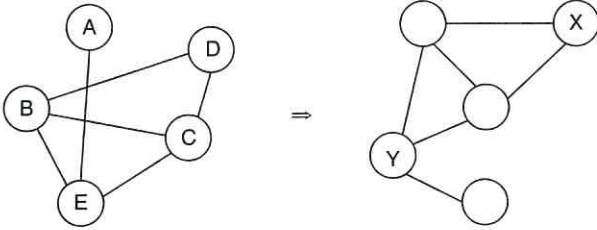
- A) B, E B) D, C C) A, C
D) D, A E) E, C

12.



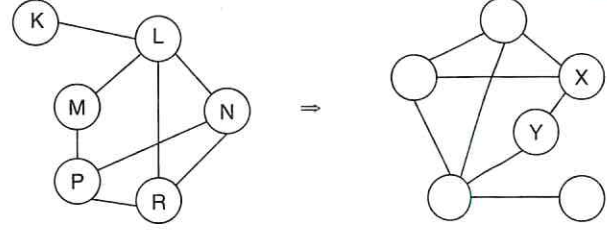
- A) G, C B) E, F C) F, E
D) D, B E) B, D

1.

 $\Rightarrow X, Y = ?, ?$

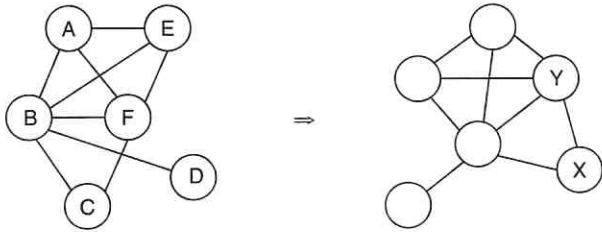
- A) B, C B) D, A C) B, E
D) D, C E) D, E

4.

 $\Rightarrow X, Y = ?, ?$

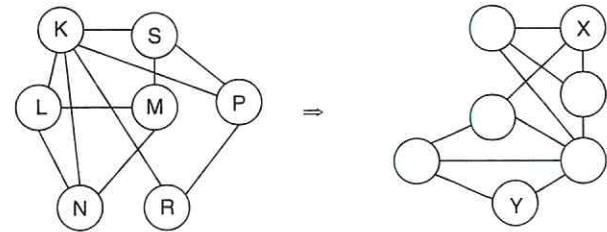
- A) M, N B) K, L C) N, P
D) P, M E) P, K

2.

 $\Rightarrow X, Y = ?, ?$

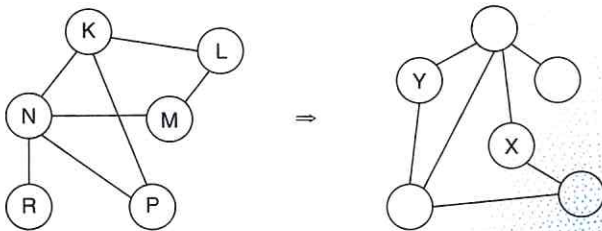
- A) C, F B) C, B C) A, C
D) F, E E) E, F

5.

 $\Rightarrow X, Y = ?, ?$

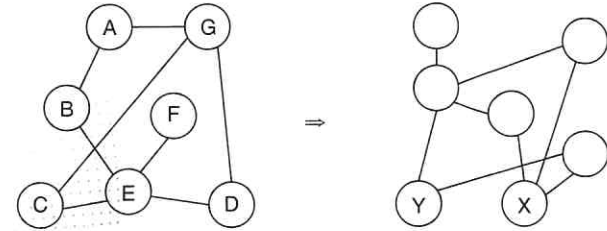
- A) M, R B) L, R C) N, R
D) M, N E) M, K

3.

 $\Rightarrow X, Y = ?, ?$

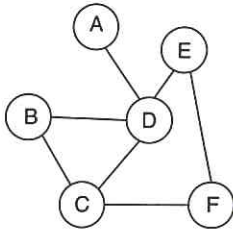
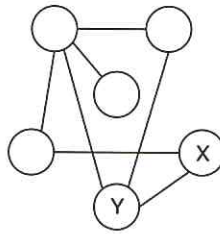
- A) M, N B) M, P C) P, R
D) K, L E) P, M

6.

 $\Rightarrow X, Y = ?, ?$

- A) F, G B) A, G C) A, B
D) G, B E) G, C

7.

 $\Rightarrow$  $\Rightarrow X, Y = ?, ?$

A) A, B

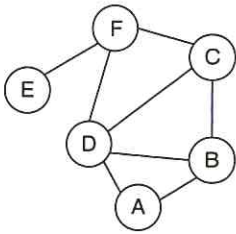
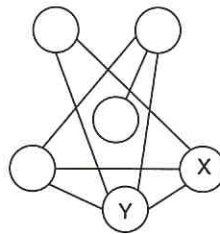
B) F, D

C) C, D

D) F, C

E) A, F

8.

 $\Rightarrow$  $\Rightarrow X, Y = ?, ?$

A) B, D

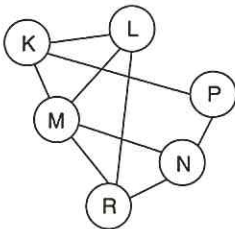
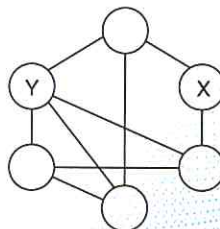
B) B, C

C) D, A

D) A, D

E) C, D

9.

 $\Rightarrow$  $\Rightarrow X, Y = ?, ?$

A) P, M

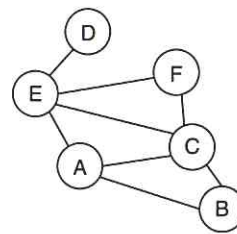
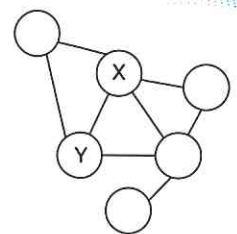
B) N, M

C) K, L

D) M, R

E) R, M

10.

 $\Rightarrow$  $\Rightarrow X, Y = ?, ?$

A) B, C

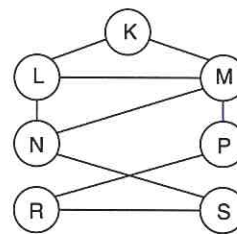
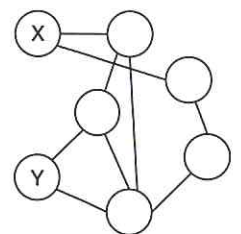
B) C, A

C) E, A

D) C, D

E) C, E

11.

 $\Rightarrow$  $\Rightarrow X, Y = ?, ?$

A) S, M

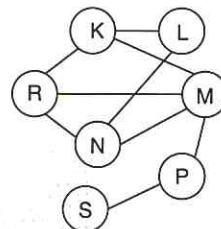
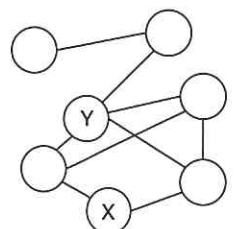
B) S, K

C) R, P

D) K, L

E) P, S

12.

 $\Rightarrow$  $\Rightarrow X, Y = ?, ?$

A) L, M

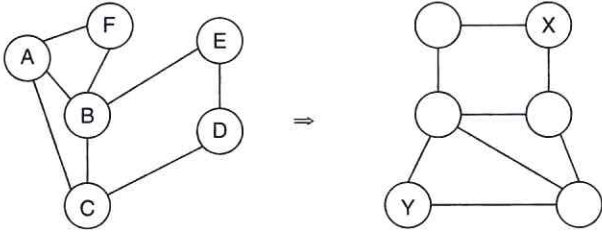
B) L, N

C) P, M

D) K, M

E) L, K

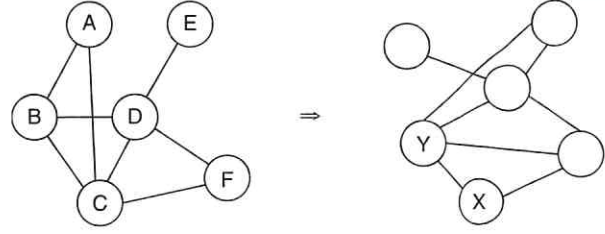
1.



⇒ X, Y = ?, ?

- A) F, A B) D, C C) A, D
D) D, F E) B, C

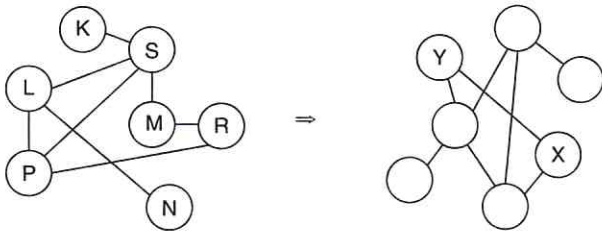
4.



⇒ X, Y = ?, ?

- A) B, C B) A, D C) F, C
D) F, A E) A, C

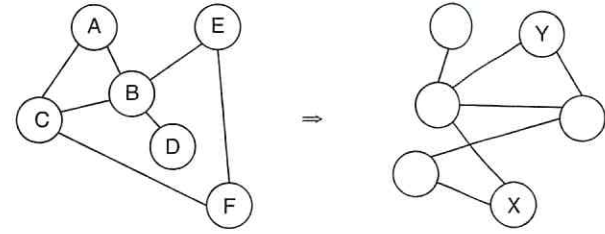
2.



⇒ X, Y = ?, ?

- A) R, P B) R, M C) K, L
D) M, N E) S, M

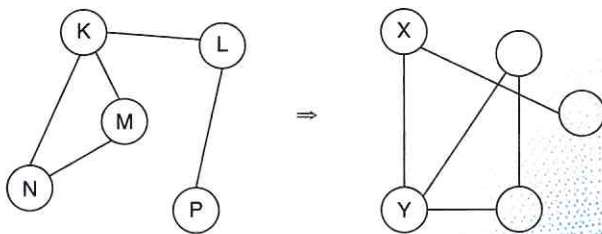
5.



⇒ X, Y = ?, ?

- A) B, D B) E, A C) A, B
D) E, C E) A, E

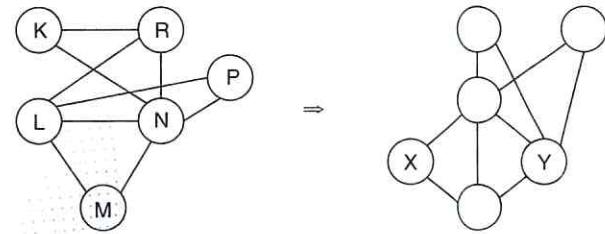
3.



⇒ X, Y = ?, ?

- A) M, N B) L, N C) K, P
D) L, K E) M, L

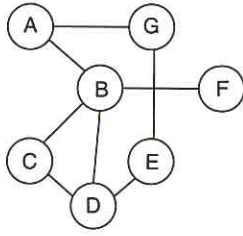
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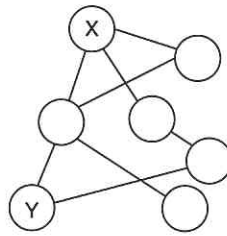
⇒ X, Y = ?, ?

- A) K, M B) N, L C) P, R
D) P, L E) K, L

7.



⇒



⇒ X, Y = ?, ?

A) E, F

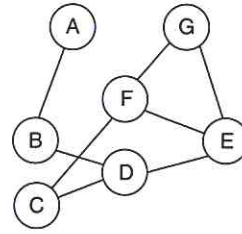
B) D, G

C) D, A

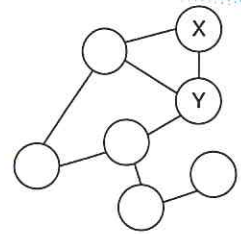
D) C, E

E) A, B

10.



⇒



⇒ X, Y = ?, ?

A) G, C

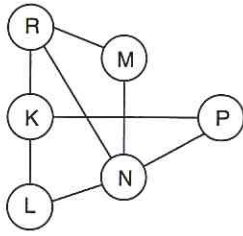
B) G, E

C) C, E

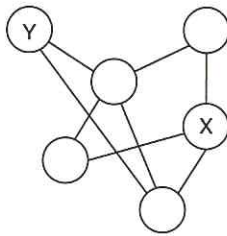
D) B, D

E) A, G

8.



⇒



⇒ X, Y = ?, ?

A) K, M

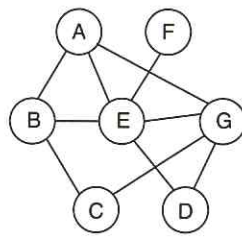
B) K, L

C) K, N

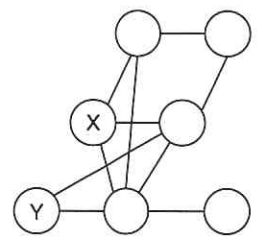
D) M, L

E) P, R

11.



⇒



⇒ X, Y = ?, ?

A) A, D

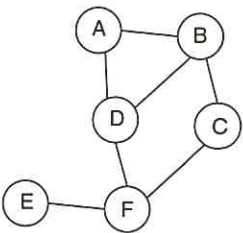
B) B, C

C) E, G

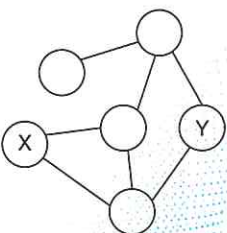
D) A, F

E) D, E

9.



⇒



⇒ X, Y = ?, ?

A) B, C

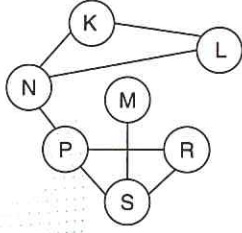
B) A, C

C) A, B

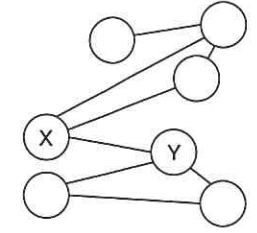
D) D, A

E) E, A

12.



⇒



⇒ X, Y = ?, ?

A) N, S

B) P, K

C) P, R

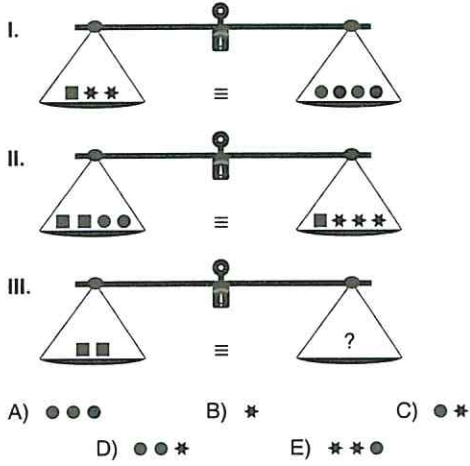
D) P, N

E) K, N

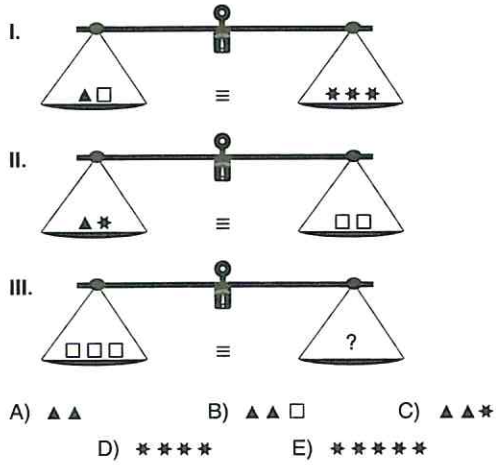


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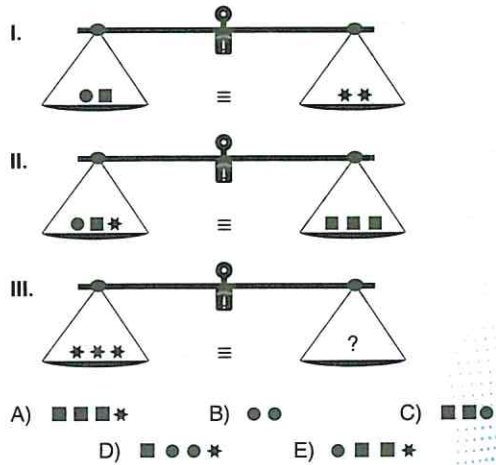
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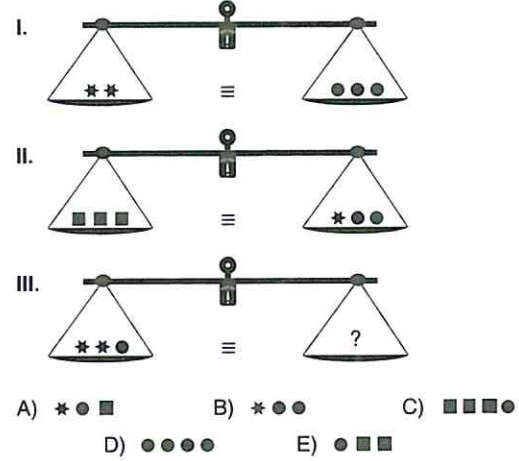
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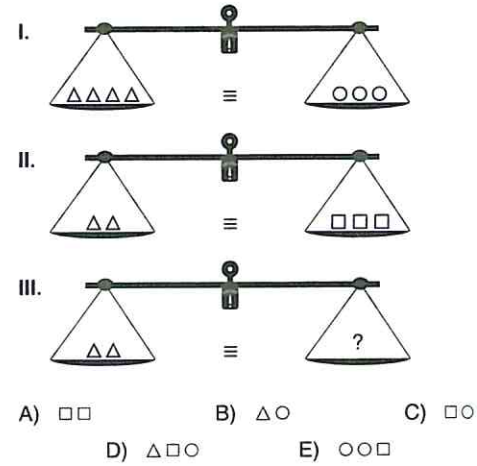
3.



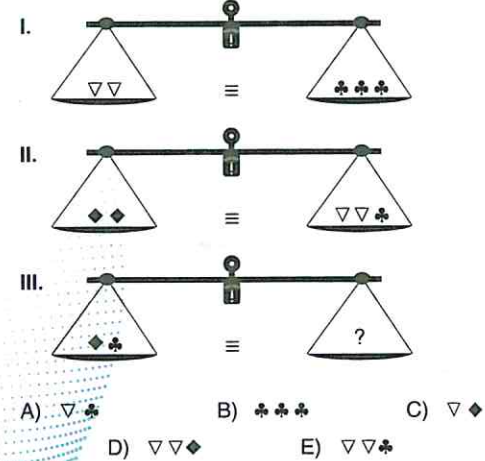
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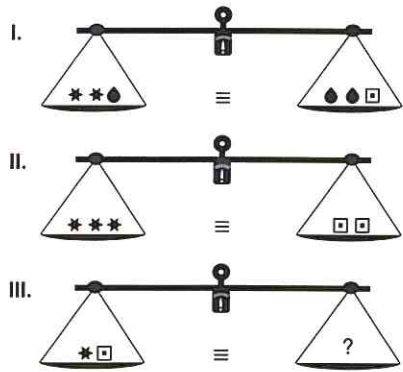
5.



6.

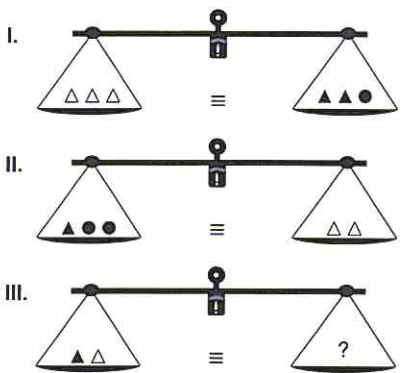


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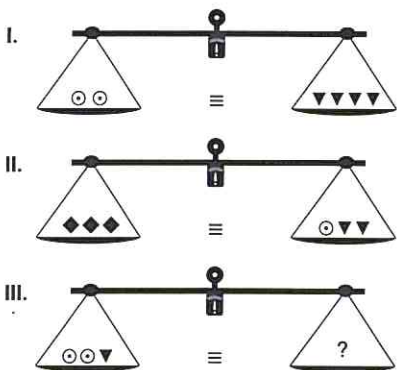
- A) ●●● B) ●●●● C) ●●●
D) ●● E) ●●

8.



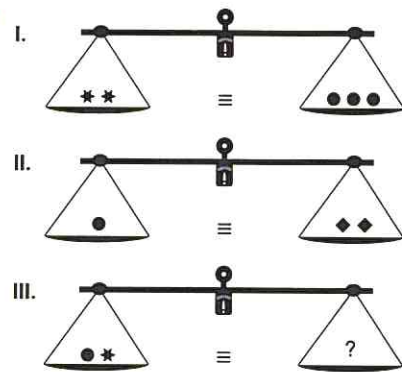
- A) ▲▲▲ B) ▲▲● C) ▲▲●
D) ●●● E) ●●●

9.



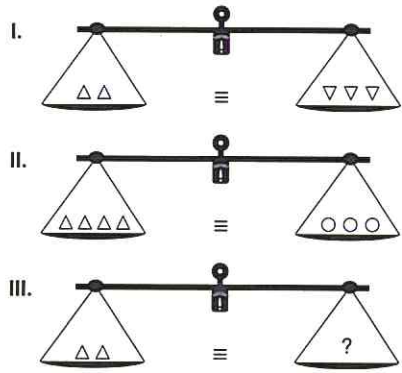
- A) ○▼◆ B) ○▼▼ C) ○◆◆◆
D) ▼▼○ E) ▼◆◆◆

10.



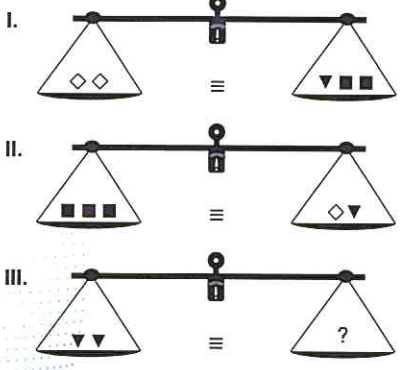
- A) ◆◆◆● B) ◆◆◆● C) ◆◆◆●
D) ●● E) ◆◆◆◆

11.



- A) ○○ B) ○▽ C) ▽▽○
D) △○○ E) △○▽

12.



- A) ■■ B) ◇◇ C) ◇■■
D) ■◇◇ E) ■◇

1.

I.  $\equiv$

II.  $\equiv$

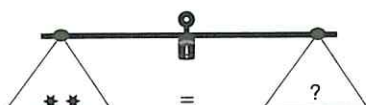
III.  $\equiv$

A)  B)  C) 
 D)  E) 

2.

I.  $\equiv$

II.  $\equiv$

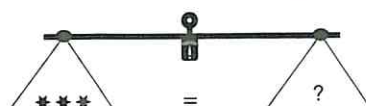
III.  $\equiv$

A)  B)  C) 
 D)  E) 

3.

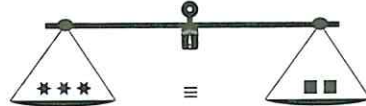
I.  $\equiv$

II.  $\equiv$

III.  $\equiv$

A)  B)  C) 
 D)  E) 

4.

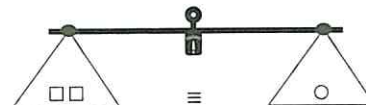
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II.  $\equiv$

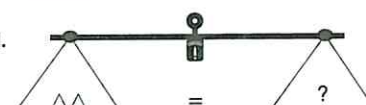
III.  $\equiv$

A)  B)  C) 
 D)  E) 

5.

I.  $\equiv$

II.  $\equiv$

III.  $\equiv$

A)  B)  C) 
 D)  E) 

6.

I.  $\equiv$

II.  $\equiv$

III.  $\equiv$

A)  B)  C) 
 D)  E) 

7. I. II. III.
 A) B) C)
 D) E)

8. I. II. III.
 A) B) C)
 D) E)

9. I. II. III.
 A) B) C)
 D) E)

10. I. II. III.
 A) B) C)
 D) E)

11. I. II. III.
 A) B) C)
 D) E)

12. I. II. III.
 A) B) C)
 D) E)

1.

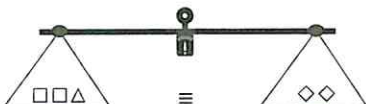
I. 

II. 

III. 

A) *▲● B) ** C) *●*
D) **▲ E) ●●▲

2.

I. 

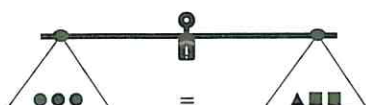
II. 

III. 

A) □□ B) □□◇ C) ◇◇
D) □◇ E) □◇◇

3.

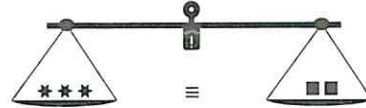
I. 

II. 

III. 

A) ▲●●●■ B) ▲▲▲ C) ●●▲▲
D) ■■■■ E) ▲●■

4.

I. 

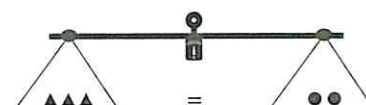
II. 

III. 

A) ● B) ●● C) ●●●
D) ●●●● E) ●●●●●

5.

I. 

II. 

III. 

A) ●■ ■ B) ●▲▲ C) ■■▲
D) ▲▲▲ E) ●■▲

6.

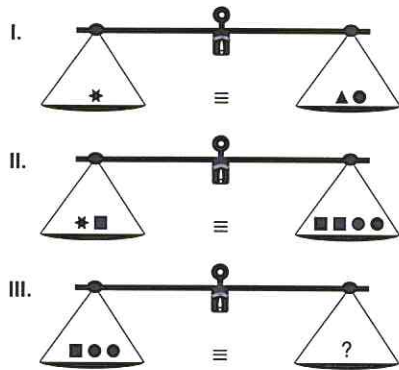
I. 

II. 

III. 

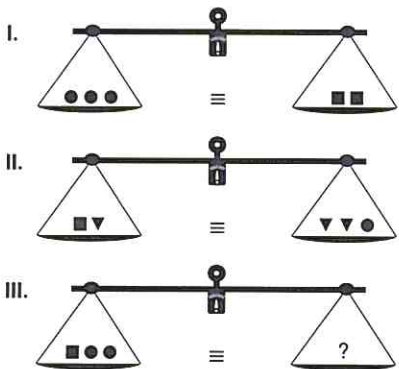
A) ■●● B) ●●* C) ●●●*
D) ●● E) ●●**

7.



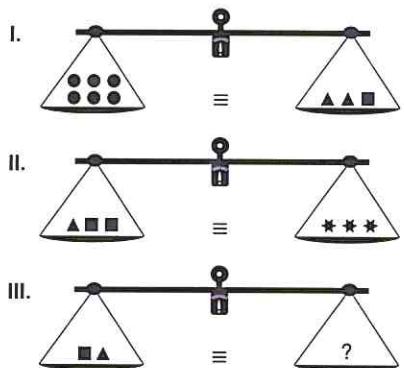
- A) ★▲ B) ★★ C) ★■●
D) ■▲● E) ●▲

8.



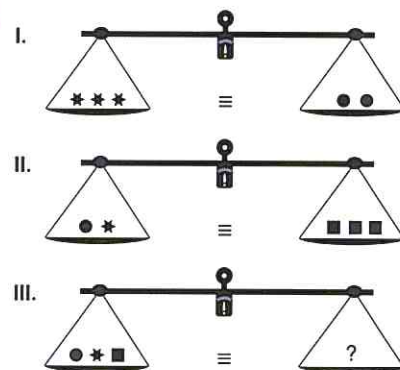
- A) ■▼▼ B) ●●▼▼ C) ■■▼
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9.



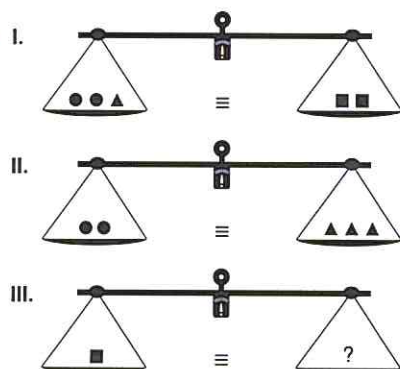
- A) ★★● B) ★★●● C) ●●●★
D) ★★●● E) ●●●★

10.



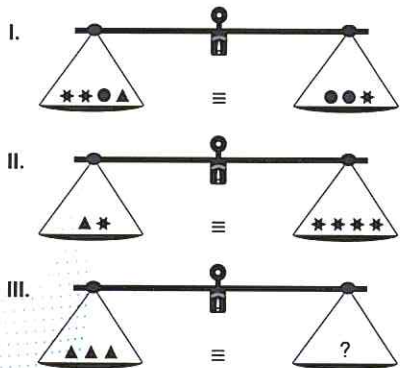
- A) ■●★★ B) ■■■■ C) ●●
D) ●●■ E) ★★★★★

11.



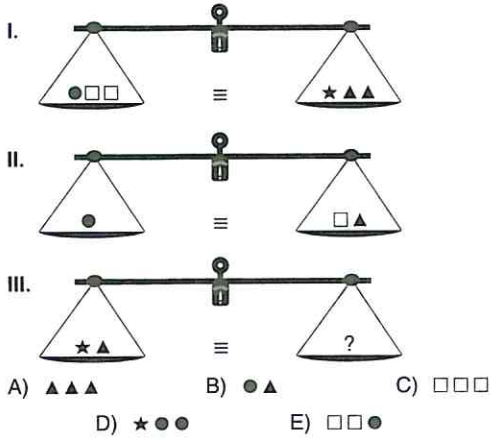
- A) ▲▲▲ B) ●▲▲ C) ▲●●
D) ▲▲ E) ●●●

12.

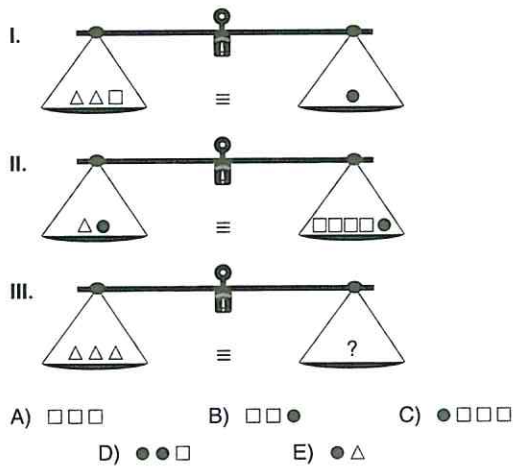


- A) ★★● B) ▲●★ C) ●●▲
D) ★●● E) ★★●●

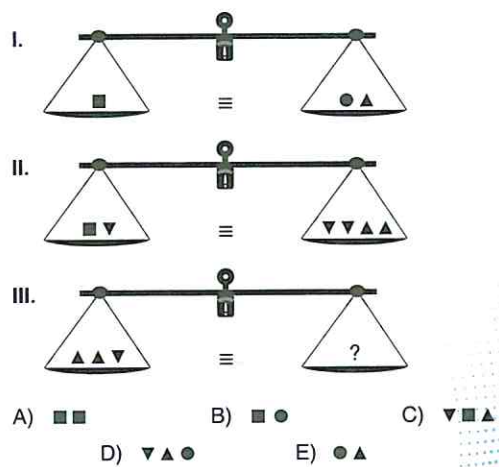
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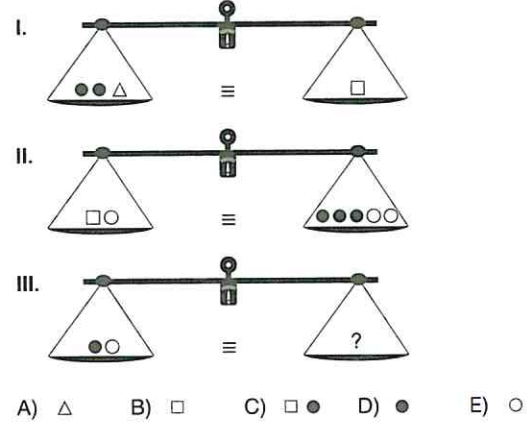
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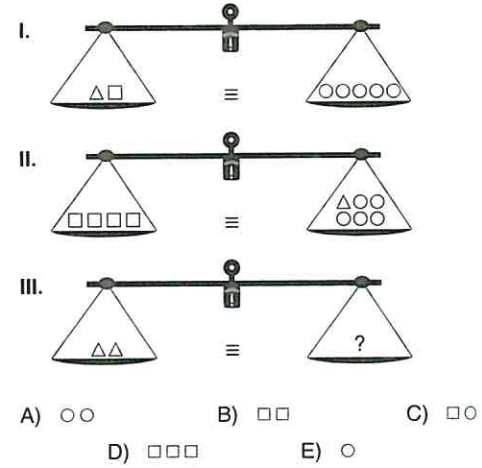
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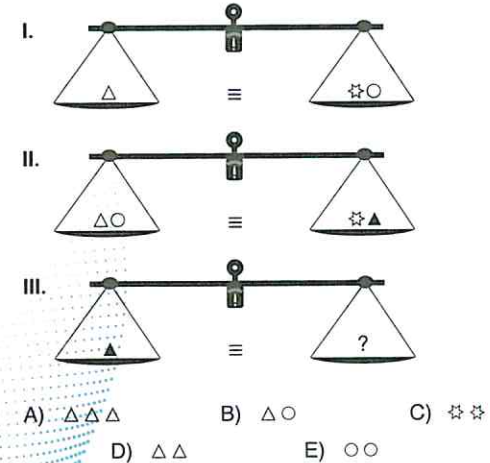
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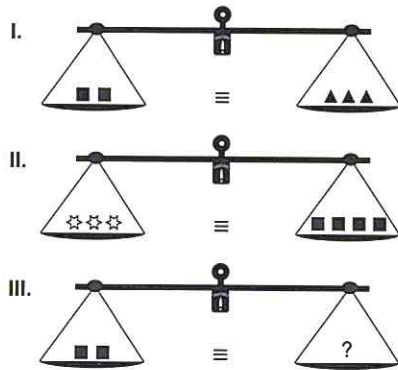
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6.

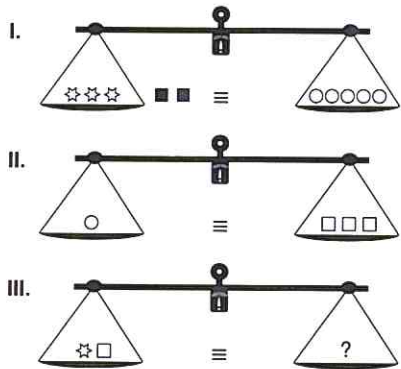


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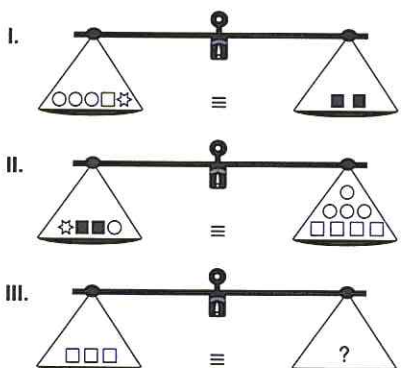
- A) ☆ ☆ B) ☆ ☆ ■ C) ☆ ▲
D) ☆ ▲ ■ E) ☆ ▲ ▲

8.



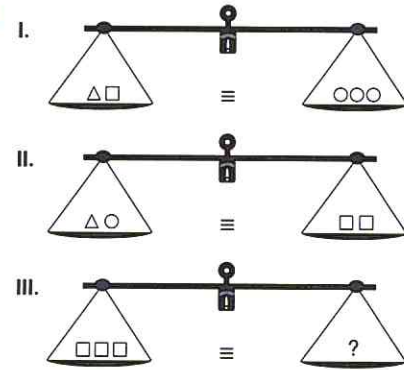
- A) ○ ○ B) ○ ○ ○ C) □ ○
D) □ □ E) ☆ ☆

9.



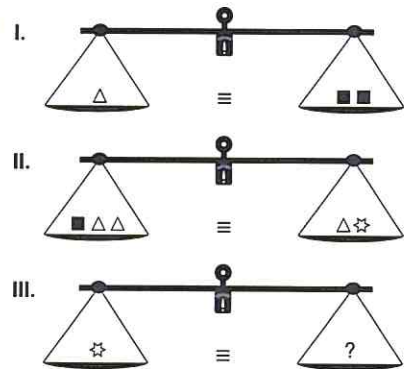
- A) □ □ ☆ B) ■ ☆ C) ☆ ☆
D) □ ○ E) ■

10.



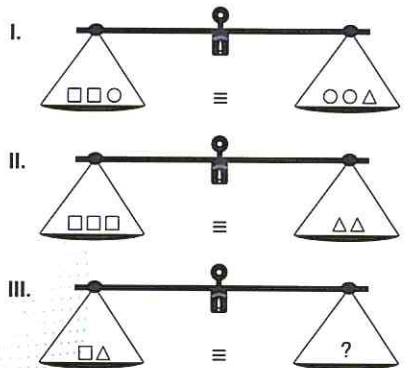
- A) ○ ○ ○ ○ ○ B) △ △ C) △ △ □
D) △ △ ○ E) ○ ○ ○ ○

11.



- A) ☆ ☆ B) △ △ C) ■ ☆
D) ■ ■ ■ E) ■

12.



- A) ○ ○ ○ B) □ ○ C) ○ ○
D) □ □ E) ○ □ □

1. I. 
- II. 
- III. 
- A) ☆ ☆ B) ○ ○ C) △ △
D) ☆ △ E) ☆ ☆ △ △

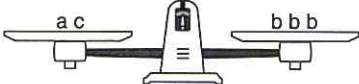
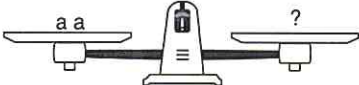
2. I. 
- II. 
- III. 
- A) □ □ ☆ B) □ □ ☆ ☆ C) ☆ ☆ ☆ ☆ ☆
D) ☆ ☆ ☆ ☆ E) ☆ ☆ ☆

3. I. 
- II. 
- III. 
- A) ● ● B) △ △ C) △ ●
D) ● ● ● E) △

4. I. 
- II. 
- III. 
- A) ▲ ▲ B) ● ● C) ● ▲
D) ● ▲ ▲ E) ● ● ▲

5. I. 
- II. 
- III. 
- A) □ △ B) △ △ C) □ □
D) ☆ ☆ △ E) ☆ □

6. I. 
- II. 
- III. 
- A) ○ ○ ☆ B) ○ □ □ C) □ □ ☆ ○
D) ☆ ○ □ E) □ □ □ ○

7. I. 
 II. 
 III. 
 A) b c c B) b b C) b c
 D) c c E) b b c

8. I. 
 II. 
 III. 
 A) ▲ ● B) ● ● ● C) ● ● ▲
 D) ▲ ▲ ● E) ☆ ☆ ☆

9. I. 
 II. 
 III. 
 A) ○ ○ ○ ○ ○ B) ● ● ● ● ● C) ○ ○ ● ● ●
 D) ● ● ○ ○ ○ E) ○ ●

10. I. 
 II. 
 III. 
 A) ■ ☆ ▲ B) ☆ ▲ ▲ C) ▲ ▲ ▲ ☆
 D) ☆ ☆ ■ E) ▲ ▲ ■ ☆

11. I. 
 II. 
 III. 
 A) ▲ ▲ □ B) □ □ ○ C) □ □ ▲
 D) □ □ □ E) ○ ○ □

12. I. 
 II. 
 III. 
 A) ▲ ● B) ▲ ▲ ● C) ▲ ▲
 D) ● ● E) ▲ ● ●

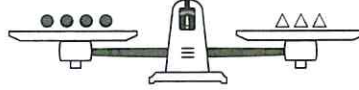
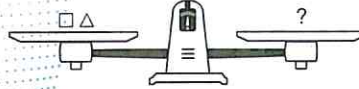
1. I. 
- II. 
- III. 
- A) ☆ □ B) ☆ ■ □ □ C) ☆ ■ □
D) □ ■ E) ☆

2. I. 
- II. 
- III. 
- A) △△△○ B) □□ C) □□△
D) △△△△□ E) △△△△

3. I. 
- II. 
- III. 
- A) ●●☆☆☆ B) ●●●☆☆ C) ☆☆☆
D) ▲●☆ E) ▲▲▲

4. I. 
- II. 
- III. 
- A) 2▲ B) 3▲ C) 4▲
D) 5▲ E) 7▲

5. I. 
- II. 
- III. 
- A) △△ B) △△○ C) ○○△
D) △ E) ○○○

6. I. 
- II. 
- III. 
- A) ●●△ B) △△ C) ●●●
D) ●● E) □□

7. I. 
 II. 
 III. 
 A) b + c B) 2b C) 3b
 D) 2c E) 3c

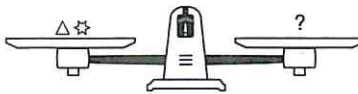
8. I. 
 II. 
 III. 
 A) ☆☆ B) ☆○ C) ☆□
 D) □□ E) □○

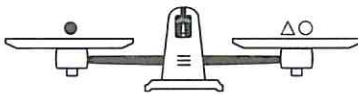
9. I. 
 II. 
 III. 
 A) □□□ B) □□ C) □□△●●
 D) △●● E) □●

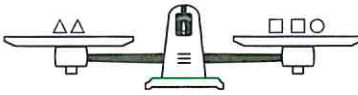
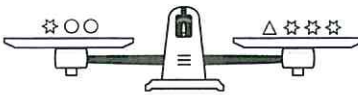
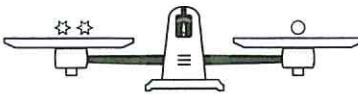
10. I. 
 II. 
 III. 
 A) ▲▲● B) ▲▲■ C) ●●▲
 D) ■■▲ E) ▲▲▲

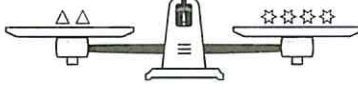
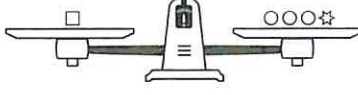
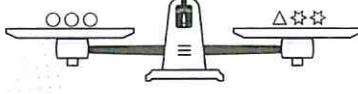
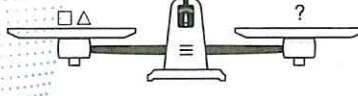
11. I. 
 II. 
 III. 
 A) -- B) -+ C) ++
 D) --- E) +++

12. I. 
 II. 
 III. 
 A) △△○ B) △ C) ○○
 D) ○○○ E) △△

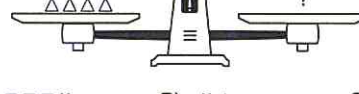
1. I. 
- II. 
- III. 
- IV. 
- A) ■■ B) △△○ C) ■○
D) □□ E) ○○○○○

3. I. 
- II. 
- III. 
- IV. 
- A) ☆△ B) ☆☆ C) △△
D) ○△ E) ☆

2. I. 
- II. 
- III. 
- IV. 
- A) ○ B) ☆△ C) △△△
D) ○△☆ E) □□□

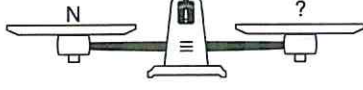
4. I. 
- II. 
- III. 
- IV. 
- A) ☆☆ B) ○○○ C) △△△☆
D) ☆☆☆☆☆ E) ☆☆☆○○

5. I. 
- II. 
- III. 
- IV. 
- A) ○○☆ B) ☆☆☆□ C) △□○○
D) ○○○ E) ☆☆☆○

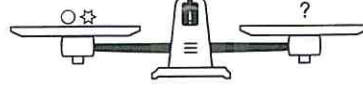
7. I. 
- II. 
- III. 
- IV. 
- A) □□□☆ B) ☆△ C) ☆☆
D) ☆☆☆□ E) △☆☆

6. I. 
- II. 
- III. 
- IV. 
- A) ☆☆☆○ B) ☆○ C) □○
D) ☆□○ E) ☆☆☆

8. I. 
- II. 
- III. 
- IV. 
- A) △△△ B) ☆△ C) ☆☆
D) △△ E) △○

1. I. 
- II. 
- III. 
- IV. 
- A) TS B) TM C) TT
D) SSS E) M

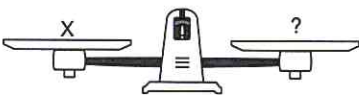
3. I. 
- II. 
- III. 
- IV. 
- A) AD B) BD C) ACD
D) BC E) AB

2. I. 
- II. 
- III. 
- IV. 
- A) ○△△ B) ☆☆☆ C) □□□
D) ☆☆☆△ E) ○△☆☆

4. I. 
- II. 
- III. 
- IV. 
- A) ☆☆☆ B) △△△ C) △☆☆
D) △△☆☆ E) ○☆☆

5. I. 
- II. 
- III. 
- IV. 
- A) $\square\square\star$ B) $\circ\square$ C) $\triangle\circ$
 D) $\triangle\triangle$ E) $\triangle\square$

7. I. 
- II. 
- III. 
- IV. 
- A) 8 ● B) 10 ● C) 15 ●
 D) 20 ● E) 30 ●

6. I. 
- II. 
- III. 
- IV. 
- A) TY B) YYY C) ZY
 D) YY E) TT

8. I. 
- II. 
- III. 
- IV. 
- A) $\square\triangle$ B) $\star\star$ C) $\triangle\triangle\triangle$
 D) $\star$ E) $\star\triangle$



HARFLİ İFADELER

LETTER EXPRESSIONS

18

TEST

Tests

288

SORU

Questions

Aşağıdaki sorularda verilen işlemlerde her harf sıfırdan ve birbirinden farklı birer rakamı göstermektedir. Buna göre, soru işareti ile belirtilen harf ya da işlemin değerini bulunuz.

In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$\begin{array}{r} 1. \quad \begin{array}{r} A B C D \\ + B C D 7 \\ \hline 9 6 2 6 \end{array} \quad \Rightarrow A = ? \end{array}$$

- A) 4 B) 5 C) 6 D) 7 E) 8

$$\begin{array}{r} 2. \quad \begin{array}{r} D C B A \\ + D C B A \\ \hline 7 5 C B \end{array} \quad \Rightarrow A + B + C + D = ? \end{array}$$

- A) 28 B) 27 C) 26 D) 25 E) 24

$$\begin{array}{r} 3. \quad \begin{array}{r} A 4 B 1 \\ + 3 A B 7 \\ \hline 9 0 2 C \end{array} \quad \Rightarrow \frac{2A+B}{C} = ? \end{array}$$

- A) 0 B) 1 C) 2 D) 3 E) 4

$$\begin{array}{r} 4. \quad \begin{array}{r} A B A \\ + 7 A B \\ \hline 1 4 5 4 \end{array} \quad \Rightarrow B = ? \end{array}$$

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

$$\begin{array}{r} 5. \quad \begin{array}{r} L M K \\ + K L L \\ \hline 1 K 5 M \end{array} \quad \Rightarrow K = ? \end{array}$$

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

$$\begin{array}{r} 6. \quad \begin{array}{r} D C 8 A \\ + B 2 B 4 \\ \hline A A D C B \end{array} \quad \Rightarrow A + B + C + D = ? \end{array}$$

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

$$\begin{array}{r} 7. \quad \begin{array}{r} K L K \\ + K M L \\ \hline 1 M M M \end{array} \quad \Rightarrow M = ? \end{array}$$

- A) 4 B) 5 C) 6 D) 7 E) 8

$$\begin{array}{r} 8. \quad \begin{array}{r} M L 4 \\ + 6 5 K \\ \hline 8 M L \end{array} \quad \Rightarrow K = ? \end{array}$$

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

9.
$$\begin{array}{r} B A A \\ B C B \\ + A B C \\ \hline 1 B 7 B \end{array} \Rightarrow C = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

10.
$$\begin{array}{r} K M 7 \\ M 3 K \\ + 8 L L \\ \hline 2 0 4 6 \end{array} \Rightarrow L = ?$$

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

11.
$$\begin{array}{r} A 4 A \\ + 3 C B \\ \hline 6 2 C \end{array} \Rightarrow A + B + C = ?$$

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

12.
$$\begin{array}{r} C B 7 \\ + B A B \\ \hline 8 C 2 \end{array} \Rightarrow A + B + C = ?$$

A) 13 B) 14 C) 15 D) 16 E) 17

13.
$$\begin{array}{r} B A A \\ + A C A \\ \hline 1 5 2 B \end{array} \Rightarrow A + B + C = ?$$

A) 14 B) 15 C) 16 D) 17 E) 18

14.
$$\begin{array}{r} C B A \\ + A A 5 \\ \hline 9 1 7 \end{array} \Rightarrow A + B + C = ?$$

A) 16 B) 17 C) 18 D) 19 E) 20

15.
$$\begin{array}{r} K L 2 \\ + 6 K \\ \hline M 2 9 \end{array} \Rightarrow K + L + M = ?$$

A) 19 B) 20 C) 21 D) 22 E) 23

16.
$$\begin{array}{r} D E 3 \\ + E 6 D \\ \hline 1 F 3 E \end{array} \Rightarrow D + E + F = ?$$

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

Aşağıdaki sorularda verilen işlemlerde her harf sıfırdan ve birbirinden farklı birer rakamı göstermektedir. Buna göre, soru işareti ile belirtilen harf ya da işlemin değerini bulunuz.

In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

1.

$$\begin{array}{r} K L \\ + L K \\ \hline 176 \end{array}$$

$$K \neq L$$

$$\Rightarrow K \times L = ?$$

- A) 52 B) 56 C) 63 D) 64 E) 72

2.

$$\begin{array}{r} A B C \\ + A C B \\ \hline 9 A 3 \end{array}$$

$$\Rightarrow B + C - A = ?$$

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

3.

$$\begin{array}{r} A B C \\ + B C A \\ \hline 754 \end{array}$$

$$\Rightarrow \frac{A+B}{C} = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

4.

$$\begin{array}{r} A B C \\ + C B A \\ \hline E B D 5 \end{array}$$

$$\Rightarrow E + B + D = ?$$

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

5.

$$\begin{array}{r} A B C \\ B C A \\ + C A B \\ \hline 2442 \end{array}$$

$$A + B = 14$$

$$\Rightarrow C = ?$$

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

6.

$$\begin{array}{r} K L M \\ K M K \\ + K K L \\ \hline 1 M 7 K \end{array}$$

$$\Rightarrow L = ?$$

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

7.

$$\begin{array}{r} A B C \\ A A B \\ + A C A \\ \hline 1 C 5 A \end{array}$$

$$\Rightarrow B = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

8.

$$\begin{array}{r} A 7 B \\ + 1 B C \\ \hline 467 \end{array}$$

$$\Rightarrow A + B + C = ?$$

- A) 17 B) 18 C) 19 D) 20 E) 21

9.
$$\begin{array}{r} A \\ + 2 \\ \hline B \end{array} \quad \begin{array}{r} B \\ + 3 \\ \hline C \end{array} \quad \begin{array}{r} A B \\ + C C \\ \hline 1 2 3 \end{array} \Rightarrow C = ?$$

- A) 1 B) 5 C) 6 D) 7 E) 8

10.
$$\begin{array}{r} A B C \\ B C A \\ + C A B \\ \hline D 5 E 3 \end{array} \quad \begin{array}{r} A \\ + B \\ \hline 1 5 \end{array} \Rightarrow C + D + E = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

11.
$$\begin{array}{r} K L M \\ + K L M \\ \hline 1 9 5 2 \end{array} \quad \begin{array}{r} K L \\ \times M \\ \hline ? \end{array} \Rightarrow ?$$

- A) 582 B) 572 C) 562 D) 552 E) 542

12.
$$\begin{array}{r} K M K \\ M L K \\ + K K L \\ \hline 1 5 4 7 \end{array} \Rightarrow L = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

13.
$$\begin{array}{r} K L \\ + L K \\ \hline 1 4 3 \end{array} \quad \begin{array}{r} L M \\ + M L \\ \hline 1 1 0 \end{array} \quad \begin{array}{r} M K \\ + K M \\ \hline 1 2 1 \end{array} \Rightarrow L = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

14.
$$\begin{array}{r} A B C \\ C C A \\ + C A B \\ \hline 1 C 8 C \end{array} \Rightarrow B = ?$$

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

15.
$$\begin{array}{r} C B A \\ + B A 4 \\ \hline 1 1 2 7 \end{array} \Rightarrow A + B + C = ?$$

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

16.
$$\begin{array}{r} A B C \\ + B B A \\ \hline 1 3 6 6 \end{array} \quad \begin{array}{r} A B C \\ + D E F \\ \hline 1 2 4 3 \end{array} \Rightarrow D + E + F = ?$$

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

Aşağıdaki sorularda verilen işlemlerde her harf sıfırdan ve birbirinden farklı birer rakamı göstermektedir. Buna göre, soru işareti ile belirtilen harf ya da işlemin değerini bulunuz.

In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

1.
$$\begin{array}{r} A \ 7 \ B \\ - \ 1 \ B \ C \\ \hline 3 \ 9 \ C \end{array} \Rightarrow A + B + C = ?$$

- A) 15 B) 16 C) 17 D) 18 E) 19

2.
$$\begin{array}{r} B \ C \ A \\ - \ A \ C \ B \\ \hline 4 \ D \ 5 \end{array} \Rightarrow D = ?$$

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

3.
$$\begin{array}{r} B \ 2 \ C \\ - \ A \ C \ 2 \\ \hline C \ B \ 1 \end{array} \Rightarrow A + B + C = ?$$

- A) 18 B) 17 C) 16 D) 15 E) 14

4.
$$\begin{array}{r} C \ B \ A \\ - \ B \ A \ 7 \\ \hline 4 \ 7 \ 9 \end{array} \Rightarrow C = ?$$

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

5.
$$\begin{array}{r} A \ B \\ - \ B \ A \\ \hline 2 \ C \end{array} \quad \begin{array}{r} A \\ - \ B \\ \hline 3 \end{array} \Rightarrow C = ?$$

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

6.
$$\begin{array}{r} K \ L \ M \\ - \ 2 \ M \ 5 \\ \hline 5 \ 2 \ K \end{array} \Rightarrow L = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

7.
$$\begin{array}{r} 5 \ K \ L \\ - \ 2 \ L \ K \\ \hline 2 \ 6 \ M \end{array} \quad \begin{array}{r} L \\ - \ M \\ \hline 3 \end{array} \Rightarrow M = ?$$

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

8.
$$\begin{array}{r} A \\ - \ 2 \\ \hline B \end{array} \quad \begin{array}{r} B \\ - \ 6 \\ \hline C \end{array} \Rightarrow A + B + C = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

9.

$$\begin{array}{r} A B 1 \\ - 1 B C \\ \hline C A B \end{array}$$

$\Rightarrow B = ?$

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

10.

$$\begin{array}{r} A B C \\ - 3 6 2 \\ \hline 2 8 9 \end{array}$$

$\Rightarrow A + B + C = ?$

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

11.

$$\begin{array}{r} K 3 M \\ - 7 L 8 \\ \hline 1 9 7 \end{array}$$

$\Rightarrow K + L - M = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

12.

$$\begin{array}{r} A B C \\ - B C 6 \\ \hline 2 1 6 \end{array}$$

$\Rightarrow A \cdot B + C = ?$

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

13.

$$\begin{array}{r} A B C B \\ - C 2 5 \\ \hline B 5 3 C \end{array}$$

$\Rightarrow A + B + C = ?$

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

14.

$$\begin{array}{r} A B \quad C \\ - C \quad \quad \\ \hline 5 D \end{array} \quad \begin{array}{r} \quad C \\ - B \quad \quad \\ \hline 6 \end{array}$$

$\Rightarrow A + D = ?$

- A) 7 B) 8 C) 9 D) 10 E) 11

15.

$$\begin{array}{r} K L M \\ - K L \quad \quad \\ \hline 4 6 7 \end{array}$$

$\Rightarrow M = ?$

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

16.

$$\begin{array}{r} 8 5 C B \\ - D C B A \\ \hline D C B A \end{array}$$

$\Rightarrow A + B + C + D = ?$

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

Aşağıdaki sorularda verilen işlemlerde her harf sıfırdan ve birbirinden farklı birer rakamı göstermektedir. Buna göre, soru işareti ile belirtilen harf ya da işlemin değerini bulunuz.

In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

1.
$$\begin{array}{r} A A B C \\ - B C A \\ \hline D 5 7 \end{array} \Rightarrow D = ?$$

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

2.
$$\begin{array}{r} 7 M L \\ - 4 4 K \\ \hline M L 2 \end{array} \Rightarrow K = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

3.
$$\begin{array}{r} 1 3 6 2 \\ - A B A \\ \hline B 8 B \end{array} \Rightarrow A + B = ?$$

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

4.
$$\begin{array}{r} A 2 B 6 \\ - 3 A 1 B \\ \hline B 6 B \end{array} \Rightarrow A + B = ?$$

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

5.
$$\begin{array}{r} 8 B 7 \\ - A 5 C \\ \hline B C 9 \end{array} \Rightarrow B = ?$$

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

6.
$$\begin{array}{r} K L M \\ - K L \\ \hline 2 M L \end{array} \Rightarrow M = ?$$

- A) 2 B) 4 C) 6 D) 7 E) 8

7.
$$\begin{array}{r} K L M \\ - L M K \\ \hline 7 2 K \end{array} \Rightarrow K + L + M = ?$$

- A) 17 B) 18 C) 19 D) 20 E) 21

8.
$$\begin{array}{r} A 7 B \\ - B A C \\ \hline C 3 9 \end{array} \Rightarrow A + B + C = ?$$

- A) 10 B) 9 C) 8 D) 7 E) 6

9.

$$\begin{array}{r} 5KL \\ - MLK \\ \hline ML3 \end{array}$$

$$\Rightarrow K + L + M = ?$$

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

10.

$$\begin{array}{r} KLMMLK \\ - MLKKLM \\ \hline 395604 \end{array}$$

$$\Rightarrow \max(K + M) = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

11.

$$\begin{array}{r} 5ABC6 \\ - CBABC \\ \hline 335AB \end{array}$$

$$\Rightarrow A + B + C = ?$$

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

12.

$$\begin{array}{r} KKM \\ - MLK \\ \hline L06 \end{array}$$

$$\Rightarrow K + L + M = ?$$

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

13.

$$\begin{array}{r} ABCD \\ - DCBA \\ \hline 6723 \end{array}$$

$$A \neq B \neq C \neq D$$

$$\Rightarrow \max(A + B + C + D) = ?$$

- A) 22 B) 23 C) 24 D) 25 E) 26

14.

$$\begin{array}{r} A \\ - 1 \\ \hline B \end{array} \quad \begin{array}{r} B \\ - 2 \\ \hline C \end{array} \quad \begin{array}{r} C \\ - 3 \\ \hline D \end{array}$$

$$\Rightarrow \max(A + B + C + D) = ?$$

- A) 23 B) 24 C) 25 D) 26 E) 27

15.

$$\begin{array}{r} KLM \\ - 3K \\ \hline 4M9 \end{array}$$

$$\Rightarrow L = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

16.

$$\begin{array}{r} DEF \\ - E F 4 \\ \hline 157 \end{array}$$

$$\Rightarrow D + E + F = ?$$

- A) 16 B) 17 C) 18 D) 19 E) 20

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

1.
$$\begin{array}{r} A \\ + 3 \\ \hline 5 \end{array} \quad \begin{array}{r} 7 \\ - B \\ \hline A \end{array} \quad \begin{array}{r} B \\ - A \\ \hline C \end{array} \Rightarrow C = ?$$

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

2.
$$\begin{array}{r} K \ 7 \ M \\ + \ K \ M \\ \hline 5 \ 2 \ K \end{array} \Rightarrow M = ?$$

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

3.
$$\begin{array}{r} A \ B \\ + B \ A \\ \hline 1 \ 3 \ 2 \end{array} \quad \begin{array}{r} A \\ - B \\ \hline 2 \end{array} \Rightarrow B = ?$$

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

4.
$$\begin{array}{r} K \\ L \\ + M \\ \hline 1 \ 4 \end{array} \quad \begin{array}{r} K \\ + M \\ \hline 9 \end{array} \quad \begin{array}{r} L \\ + M \\ \hline 8 \end{array} \Rightarrow K = ?$$

A) 3 B) 4 C) 5 D) 6 E) 7

5.
$$\begin{array}{r} A \ B \ C \\ B \ C \ A \\ + C \ A \ B \\ \hline 1 \ 6 \ 6 \ 5 \end{array} \quad \begin{array}{r} A \\ + C \\ \hline 7 \end{array} \Rightarrow B = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

6.
$$\begin{array}{r} A \ B \ 4 \\ + \ A \ B \\ \hline C \ 0 \ 1 \end{array} \Rightarrow C = ?$$

A) 2 B) 3 C) 4 D) 5 E) 7

7.
$$\begin{array}{r} K \ L \ M \\ - M \ L \ K \\ \hline 3 \ N \ 6 \end{array} \Rightarrow N = ?$$

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

8.
$$\begin{array}{r} A \ B \\ B \ B \\ B \ A \\ + A \ A \\ \hline 1 \ 7 \ 6 \end{array} \Rightarrow A + B = ?$$

A) 8 B) 7 C) 6 D) 5 E) 4

$$\begin{array}{r} K L M \\ L M K \\ + M K L \\ \hline 2 5 5 3 \end{array}$$

$$\Rightarrow K + L + M = ?$$

- A) 13 B) 15 C) 23 D) 25 E) 21

$$\begin{array}{r} A 5 B \\ + A 8 \\ \hline D C A \end{array}$$

$$\begin{array}{r} A \\ + B \\ \hline 1 2 \end{array}$$

$$\Rightarrow C + D = ?$$

- A) 11 B) 10 C) 9 D) 8 E) 7

$$\begin{array}{r} K L \\ + L K \\ \hline 1 4 3 \end{array}$$

$$\begin{array}{l} K \times L = 40 \\ \Rightarrow K - L = ? \end{array}$$

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

$$\begin{array}{r} K 4 L \\ + K L \\ \hline 9 3 K \end{array}$$

$$\Rightarrow L = ?$$

- A) 9 B) 8 C) 7 D) 6 E) 4

$$\begin{array}{r} C A \\ + A B \\ \hline 8 7 \end{array}$$

$$\begin{array}{l} B + C = 11 \\ \Rightarrow B = ? \end{array}$$

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

$$\begin{array}{r} X Y \\ + Y X \\ \hline 1 2 1 \end{array}$$

$$\begin{array}{l} X - Y = 1 \\ \Rightarrow X = ? \end{array}$$

- A) 7 B) 6 C) 5 D) 4 E) 3

$$\begin{array}{r} 2 3 8 \\ + K L \\ \hline M 7 7 \end{array}$$

$$\Rightarrow K + L + M = ?$$

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

$$\begin{array}{r} 1 A 4 \\ + B 8 C \\ \hline 7 2 1 \end{array}$$

$$\Rightarrow A + B + C = ?$$

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

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$\begin{array}{r} \text{A B C} \\ - \text{C B A} \\ \hline 495 \end{array} \quad \begin{array}{r} \text{A} \\ + \text{C} \\ \hline 7 \end{array} \Rightarrow \text{A} = ?$$

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

$$\begin{array}{r} \text{K L} \\ + \text{L K} \\ \hline 121 \end{array} \quad \begin{array}{r} \text{K} \\ - \text{L} \\ \hline 3 \end{array} \Rightarrow \text{K} \cdot \text{L} = ?$$

- A) 10 B) 18 C) 28 D) 40 E) 54

$$\begin{array}{r} \text{A B C} \\ - \text{K L M} \\ \hline 222 \end{array} \quad \begin{array}{r} \text{A B C} \\ + \text{K L M} \\ \hline 752 \end{array} \Rightarrow \text{L} = ?$$

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

$$\begin{array}{r} \text{A B C} \\ + \text{D E F} \\ \hline 888 \end{array} \Rightarrow \frac{\text{A} + \text{F} + \text{D} + \text{C}}{\text{B} + \text{E}} = ?$$

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

$$\begin{array}{r} \text{A B} \\ \text{B B} \\ \text{A A} \\ + \text{B A} \\ \hline 176 \end{array} \quad \begin{array}{l} \text{A} - \text{B} = 2 \\ \Rightarrow \text{A} = ? \end{array}$$

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

$$\begin{array}{r} 8 \text{ A } 4 \\ + \text{C } 7 \text{ B} \\ \hline 1231 \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

$$\begin{array}{r} 6 \text{ K L} \\ + \text{K L } 5 \\ \hline 14 \text{ A } 1 \end{array} \Rightarrow \text{A} = ?$$

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

$$\begin{array}{r} 3 \text{ A B} \\ + \text{A } 6 \\ \hline 455 \end{array} \Rightarrow \text{A} + \text{B} = ?$$

- A) 16 B) 15 C) 14 D) 11 E) 9

$$9. \quad \begin{array}{r} K L \\ + L K \\ \hline 143 \end{array} \quad \begin{array}{r} K \\ - L \\ \hline 1 \end{array} \Rightarrow K = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

$$10. \quad \begin{array}{r} A4B \\ + BB \\ \hline B4A \end{array} \Rightarrow A + B = ?$$

- A) 18 B) 17 C) 16 D) 15 E) 14

$$11. \quad \begin{array}{r} ABC \\ BCA \\ + CAB \\ \hline 2109 \end{array} \quad \begin{array}{r} B \\ - A \\ \hline 1 \end{array} \quad \begin{array}{r} C \\ - B \\ \hline 2 \end{array} \Rightarrow C = ?$$

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

$$12. \quad \begin{array}{r} KLM \\ + MLK \\ \hline N6L \end{array} \Rightarrow N + L = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

$$13. \quad \begin{array}{r} AB \\ + BA \\ \hline 154 \end{array} \quad \begin{array}{r} B \\ - A \\ \hline 4 \end{array} \Rightarrow A = ?$$

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

$$14. \quad \begin{array}{r} ABC \\ ACD \\ + ADB \\ \hline 1B3C \end{array} \quad \begin{array}{r} C \\ + D \\ \hline B \end{array} \Rightarrow A + B + C + D = ?$$

- A) 38 B) 36 C) 34 D) 32 E) 30

$$15. \quad \begin{array}{r} ABC \\ + DAB \\ \hline 631 \end{array} \quad \begin{array}{r} ABC \\ - DAB \\ \hline 335 \end{array} \Rightarrow A + B + C = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

$$16. \quad \begin{array}{r} 65L \\ - KLM \\ \hline 1L3 \end{array} \quad \begin{array}{r} KLM \\ + MET \\ \hline 1K03 \end{array} \Rightarrow \begin{array}{r} MET \\ - KLM \\ \hline ? \end{array}$$

- A) 345 B) 435 C) 445 D) 344 E) 444

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$$\begin{array}{r} \text{K L K} \\ + \text{L K L} \\ \hline 555 \end{array} \quad \begin{array}{r} \text{K L} \\ - \text{L K} \\ \hline 9 \end{array} \Rightarrow \text{K} = ?$$

- A) 3 B) 5 C) 6 D) 7 E) 9

$$\begin{array}{r} \text{A B C} \\ - \text{C B A} \\ \hline 297 \end{array} \quad \begin{array}{r} \text{A C} \\ + \text{C A} \\ \hline 55 \end{array} \Rightarrow \text{A.C} = ?$$

- A) 3 B) 4 C) 6 D) 8 E) 14

$$\begin{array}{r} \text{K L M} \\ \text{M K L} \\ + \text{L M K} \\ \hline \text{B A A 2} \end{array} \quad \begin{array}{l} \text{K} + \text{L} + \text{M} < 20 \\ \Rightarrow \text{K} + \text{L} + \text{M} + \text{A} + \text{B} = ? \end{array}$$

- A) 12 B) 14 C) 16 D) 20 E) 23

$$\begin{array}{r} \text{D 8 A} \\ + \text{C A D} \\ \hline \text{B B C B} \end{array} \quad \begin{array}{r} \text{D} \\ - \text{A} \\ \hline 3 \end{array} \Rightarrow \text{A+B+C+D} = ?$$

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

$$\begin{array}{r} \text{X Y} \\ + \text{A B} \\ \hline 58 \end{array} \quad \begin{array}{r} \text{K L} \\ + \text{X Y} \\ \hline 41 \end{array} \quad \begin{array}{r} \text{A B} \\ + \text{K L} \\ \hline 69 \end{array} \Rightarrow \text{K} + \text{L} = ?$$

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

$$\begin{array}{r} \text{A B C} \\ - \text{B C 3} \\ \hline 4 \text{ A B} \end{array} \quad \begin{array}{r} \text{A} \\ + \text{B} \\ \hline 9 \end{array} \Rightarrow \text{C} = ?$$

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

$$\begin{array}{r} \text{A B C} \\ \text{A C B} \\ + \text{B C A} \\ \hline 16 \text{ A A} \end{array} \Rightarrow \text{C} = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

$$\begin{array}{r} \text{K L M} \\ - \text{L M K} \\ \hline 162 \end{array} \quad \begin{array}{r} \text{K} \\ + \text{L} \\ \hline 12 \end{array} \Rightarrow \text{M} = ?$$

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

9.
$$\begin{array}{r} A7B \\ + 2C9 \\ \hline CBA \end{array} \quad \begin{array}{r} A \\ + B \\ \hline 11 \end{array} \Rightarrow C = ?$$

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

10.
$$\begin{array}{r} 6AB \\ - 375 \\ \hline AB9 \end{array} \quad \begin{array}{r} AB \\ + CD \\ \hline 97 \end{array} \Rightarrow C + D = ?$$

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

11.
$$\begin{array}{r} ABA \\ + 3CB \\ \hline C96 \end{array} \quad \begin{array}{r} A \\ - B \\ \hline 2 \end{array} \Rightarrow C = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

12.
$$\begin{array}{r} KL1 \\ - 5KL \\ \hline MLM \end{array} \Rightarrow K + L + M = ?$$

A) 20 B) 19 C) 18 D) 17 E) 16

13.
$$\begin{array}{r} KLM \\ T9K \\ + MLT \\ \hline 14MM \end{array} \quad \begin{array}{r} K \\ + L \\ \hline 9 \end{array} \Rightarrow T = ?$$

A) 3 B) 4 C) 5 D) 6 E) 7

14.
$$\begin{array}{r} KLM \\ MLK \\ + KML \\ \hline 1R8L \end{array} \quad \begin{array}{r} MLK \\ - KLM \\ \hline 792 \end{array} \Rightarrow L + R = ?$$

A) 6 B) 7 C) 8 D) 9 E) 10

15.
$$\begin{array}{r} PRS \\ RPS \\ + SPR \\ \hline 1545 \end{array} \quad \begin{array}{r} P \\ + R \\ \hline 10 \end{array} \Rightarrow S = ?$$

A) 3 B) 4 C) 5 D) 6 E) 7

16.
$$\begin{array}{r} ABC \\ + KLM \\ \hline 1172 \end{array} \quad \begin{array}{r} KLM \\ - ABC \\ \hline 254 \end{array} \Rightarrow A + B + C = ?$$

A) 15 B) 16 C) 17 D) 18 E) 19

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$1. \quad \begin{array}{r} P R \\ \times S \\ \hline 9 S \end{array} \quad \begin{array}{r} P \\ - S \\ \hline 2 \end{array} \Rightarrow R = ?$$

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

$$2. \quad \begin{array}{r} K L \\ \times L \\ \hline 4 5 L \end{array} \quad \begin{array}{r} K L \\ + M N \\ \hline 1 L K \end{array} \Rightarrow M + N = ?$$

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

$$3. \quad \begin{array}{r} M N \\ \times N M \\ \hline \bullet K \bullet \\ + \bullet \bullet \bullet \\ \hline L L M 8 \end{array} \quad \begin{array}{r} N \\ \times 2 \\ \hline M \end{array} \Rightarrow \frac{M+N}{K+L} = ?$$

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

$$4. \quad \begin{array}{r} A B \\ \times C B \\ \hline A 0 4 \\ + D 6 \\ \hline 1 0 6 4 \end{array} \Rightarrow A + B + C + D = ?$$

- A) 17 B) 18 C) 19 D) 20 E) 21

$$5. \quad \begin{array}{r} A B \\ \times C A \\ \hline B 8 \\ + 7 A \\ \hline 7 6 8 \end{array} \Rightarrow A + B + C = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

$$6. \quad \begin{array}{r} K L \\ \times M 4 \\ \hline 1 1 K \\ + 1 M L \\ \hline 1 N 9 K \end{array} \Rightarrow N = ?$$

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

$$7. \quad \begin{array}{r} A B \\ \times C \\ \hline 2 5 8 \end{array} \quad \begin{array}{r} A \\ + C \\ \hline 1 0 \end{array} \Rightarrow C = ?$$

- A) 3 B) 4 C) 6 D) 7 E) 8

$$8. \quad \begin{array}{r} K L M \\ \times K M \\ \hline 1 L 1 9 \\ + 2 8 N K \\ \hline 3 0 M N 9 \end{array} \Rightarrow K + L + M + N = ?$$

- A) 17 B) 18 C) 19 D) 20 E) 21

9.

$$\begin{array}{r} A B \\ \times C D \\ \hline C C D \\ + 1 1 C \\ \hline 1 3 D D \end{array}$$

$\Rightarrow A + B = ?$

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

10.

$$\begin{array}{r} A B \\ \times B A \\ \hline C 7 B \\ + 1 B 4 \\ \hline 1 A 1 B \end{array}$$

$\Rightarrow A + B + C = ?$

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

11.

$$\begin{array}{r} A B \\ \times C 2 \\ \hline 9 D \\ + 1 A A \\ \hline 1 5 C D \end{array}$$

$\Rightarrow B = ?$

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

12.

$$\begin{array}{r} K L M \\ \times T \\ \hline 1 L K M \end{array} \quad \begin{array}{r} M \\ + T \\ \hline 1 0 \end{array}$$

$\Rightarrow K + L = ?$

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

13.

$$\begin{array}{r} K L M \\ \times 3 N \\ \hline \bullet \bullet \bullet \bullet \\ + M M 1 \\ \hline 9 2 5 2 \end{array}$$

$\Rightarrow K + L + M + N = ?$

- A) 20 B) 21 C) 22 D) 23 E) 24

14.

$$\begin{array}{r} K L \\ \times M \\ \hline 5 5 8 \end{array} \quad \begin{array}{r} L \\ \times 2 \\ \hline M \end{array}$$

$\Rightarrow K + L + M = ?$

- A) 14 B) 15 C) 16 D) 17 E) 18

15.

$$\begin{array}{r} 3 A B \\ \times C 5 \\ \hline 1 C A 0 \\ + 1 9 B B \\ \hline 2 1 0 C D \end{array}$$

$\Rightarrow A + B + C = ?$

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

16.

$$\begin{array}{r} 7 A \\ \times B C \\ \hline 4 B A \\ + A 1 C \\ \hline A 5 9 A \end{array}$$

$\Rightarrow A + B + C = ?$

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

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1.

$$\begin{array}{r} \text{A B A} \\ \times \text{A B} \\ \hline \text{C 9 C} \\ + \text{D C D} \\ \hline \text{5 3 B C} \end{array}$$

$$\Rightarrow \text{C} = ?$$

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

2.

$$\begin{array}{r} \text{A B C} \\ \times \text{D 4} \\ \hline \text{D D 0 0} \\ + \text{A B C} \\ \hline \text{3 8 C 0} \end{array}$$

$$\Rightarrow \text{A} + \text{B} + \text{C} + \text{D} = ?$$

A) 13 B) 14 C) 15 D) 16 E) 17

3.

$$\begin{array}{r} \text{A A} \\ \times \text{2} \\ \hline \text{B B} \end{array}$$

$$\begin{array}{r} \text{C} \\ - \text{A} \\ \hline \text{B} \end{array}$$

$$\text{A} + \text{B} + \text{C} = 12$$

$$\Rightarrow \begin{array}{r} \text{C} \\ \times \text{A} \\ \hline ? \end{array}$$

A) 8 B) 12 C) 15 D) 18 E) 24

4.

$$\begin{array}{r} \text{K L M} \\ \times \text{4 M} \\ \hline \text{L M N 1} \\ + \text{1 K 1 N} \\ \hline \text{1 N 1 L 1} \end{array}$$

$$\Rightarrow \text{K} + \text{L} + \text{M} + \text{N} = ?$$

A) 20 B) 21 C) 22 D) 23 E) 24

5.

$$\begin{array}{r} \text{A B C} \\ \times \text{8 D} \\ \hline \text{• • • •} \\ + \text{3 3 8 4} \\ \hline \text{3 6 3 7 8} \end{array}$$

$$\Rightarrow \text{D} = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

6.

$$\begin{array}{r} \text{K L M} \\ \times \text{P B} \\ \hline \text{M 5 K P} \\ + \text{1 P P 8} \\ \hline \text{1 B 0 1 P} \end{array}$$

$$\Rightarrow \text{K} + \text{L} + \text{M} + \text{P} + \text{B} = ?$$

A) 26 B) 25 C) 24 D) 23 E) 22

7.

$$\begin{array}{r} \text{7 8 1} \\ \times \text{K L} \\ \hline \text{• • 0 L} \\ + \text{3 1 2 K} \\ \hline \text{• • • K L} \end{array}$$

$$\Rightarrow \text{K} + \text{L} = ?$$

A) 7 B) 8 C) 9 D) 10 E) 11

8.

$$\begin{array}{r} \text{K L M} \\ \times \text{8} \\ \hline \text{N 9 8 N} \end{array}$$

$$\begin{array}{r} \text{M} \\ + \text{N} \\ \hline \text{7} \end{array}$$

$$\Rightarrow \text{K} + \text{L} = ?$$

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

9.

$$\begin{array}{r} A B C \\ \times \quad C A \\ \hline D D 6 \\ + A A A 4 \\ \hline A A B 9 6 \end{array}$$

$\Rightarrow B = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

10.

$$\begin{array}{r} A B 6 \\ \times \quad C D \\ \hline 3 7 D \\ + 7 C C \\ \hline 7 B A D \end{array}$$

$\Rightarrow A + B + C + D = ?$

- A) 14 B) 15 C) 16 D) 17 E) 18

11.

$$\begin{array}{r} A B 9 \\ \times \quad 6 C \\ \hline D 7 D \\ + C 6 B A \\ \hline C 7 C E D \end{array}$$

$\Rightarrow A + B + C + D + E = ?$

- A) 18 B) 19 C) 20 D) 21 E) 22

12.

$$\begin{array}{r} A B C 7 \\ \times \quad D \\ \hline C D A B 4 \end{array}$$

$\Rightarrow A + B + C + D = ?$

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

13.

$$\begin{array}{r} K 2 L \\ \times \quad M \\ \hline L L M K \end{array}$$

$$\begin{array}{r} L \\ + M \\ \hline 1 1 \end{array}$$

$\Rightarrow K + L + M = ?$

- A) 18 B) 17 C) 16 D) 15 E) 14

14.

$$\begin{array}{r} A 9 B \\ \times \quad C 6 \\ \hline D E 5 8 \\ + D D E A \\ \hline D B C E 8 \end{array}$$

$\Rightarrow A + B + C + D + E = ?$

- A) 17 B) 18 C) 19 D) 20 E) 21

15.

$$\begin{array}{r} P R M \\ \times \quad T 5 \\ \hline R 1 P 0 \\ + 1 R M P \\ \hline 1 P 9 M 0 \end{array}$$

$\Rightarrow P + R + M + T = ?$

- A) 15 B) 16 C) 17 D) 18 E) 19

16.

$$\begin{array}{r} A B C \\ \times \quad D E \\ \hline C 0 4 E \\ + A B C \\ \hline D 3 C 0 E \end{array}$$

$\Rightarrow A + B + C + D + E = ?$

- A) 28 B) 27 C) 26 D) 25 E) 24

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1.
$$\begin{array}{r} 17AB \\ 3 \end{array} = AB6 \quad \Rightarrow A + B = ?$$

A) 17 B) 16 C) 15 D) 14 E) 13

2.
$$\begin{array}{r} AA5 \\ - 36 \\ \hline 8 \cdot \\ - \cdot \cdot \\ \hline A \end{array} \quad \Rightarrow A + B = ?$$

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

3.
$$\begin{array}{r} 7AA \\ - 7B \\ \hline 6A \\ - 6C \\ \hline C \end{array} \quad \Rightarrow A + B + C = ?$$

A) 13 B) 14 C) 15 D) 16 E) 17

4.
$$\begin{array}{r} 5AB \\ - AB \\ \hline CCB \\ - 86 \\ \hline D7 \end{array} \quad \Rightarrow A + B + C + D = ?$$

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

5.
$$\begin{array}{r} A5A \\ - AB \\ \hline 1A \\ - 1A \\ \hline 00 \end{array} \quad \Rightarrow A + B + C = ?$$

A) 13 B) 14 C) 15 D) 16 E) 17

6.
$$\begin{array}{r} ABCD \\ - AB \\ \hline 0CD \\ - CB \\ \hline B \end{array} \quad \Rightarrow A + B + C + D = ?$$

A) 13 B) 12 C) 11 D) 10 E) 9

7.
$$\begin{array}{r} AB4 \\ - AC \\ \hline A4 \\ - AC \\ \hline 3 \end{array} \quad \Rightarrow A + B + C = ?$$

A) 18 B) 17 C) 16 D) 15 E) 14

8.
$$\begin{array}{r} 1AB \\ - 1C \\ \hline 5B \\ - 52 \\ \hline 2 \end{array} \quad \Rightarrow A = ?$$

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

9.
$$\begin{array}{r|l} 4 \text{ A } 5 & \text{A6} \\ - & \text{B6} \\ \hline & \text{K} \end{array} \Rightarrow \text{K} = ?$$

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

10.
$$\begin{array}{r|l} \text{A B C} & \text{C7} \\ - \text{C 7} & \text{C7} \\ \hline \text{C A C} & \\ - \text{C C B} & \\ \hline \text{A} & \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

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

11.
$$\begin{array}{r|l} \text{A B C} & \text{CA} \\ - \text{A 1 8} & \text{B} \\ \hline 47 & \end{array} \quad \Rightarrow \text{A} = ?$$

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

12.
$$\begin{array}{r} \text{A B B} \\ - \text{A 4} \\ \hline \text{A B} \\ - \text{A 4} \\ \hline \text{A} \end{array}$$

$\Rightarrow \text{A} + \text{B} = ?$

A) 6 B) 7 C) 8 D) 9 E) 10

13.
$$\begin{array}{r} \text{A B A C} \mid \bullet \bullet \\ - 144 \mid \bullet \bullet \\ \hline \bullet \bullet \bullet \\ - 72 \\ \hline 6 \end{array}$$

$\Rightarrow A + B + C = ?$

A) 14 B) 15 C) 16 D) 17 E) 18

14.
$$\begin{array}{r} \text{A A A A A A} \\ - \\ \hline 0 \end{array} \quad \begin{array}{r} \text{AA} \\ \hline \text{B} \end{array} \Rightarrow \text{B} = ?$$

A) 111 B) 101 C) 1111 D) 1010 E) 10101

15.

$$\begin{array}{r} \text{A B 9} \mid \text{B} \\ - \text{A B} \mid 61 \\ \hline 09 \\ - \text{B} \\ \hline 1 \end{array}$$

$\Rightarrow A = ?$

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

16.
$$\begin{array}{r} A\ B\ C \\ -\ A\ B \\ \hline 0\ C \\ -\ 6 \\ \hline B \end{array}$$

$\Rightarrow C = ?$

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

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$\begin{array}{r} 3AB \\ - 3B \\ \hline 2B \\ - 2B \\ \hline 0 \end{array} \Rightarrow A + B = ?$$

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

$$\begin{array}{r} 68A \\ - 6A \\ \hline 5A \\ - DC \\ \hline D \end{array} \Rightarrow A + B + C + D = ?$$

- A) 24 B) 23 C) 22 D) 21 E) 20

$$\begin{array}{r} ABAC \\ - A4 \\ \hline AA \\ - 21 \\ \hline 1C \\ - 1C \\ \hline D \end{array} \Rightarrow A + B + C = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

$$\begin{array}{r} ABABA \\ - \quad \quad \quad \\ \hline 4 \end{array} \Rightarrow A + C = ?$$

- A) 1014 B) 114 C) 1115 D) 115 E) 14

$$\begin{array}{r} K L K \\ - K 2 \\ \hline MK \\ - K 9 \\ \hline M \end{array} \Rightarrow K + L + M = ?$$

- A) 15 B) 16 C) 17 D) 18 E) 19

$$\begin{array}{r} K L L \\ - KM \\ \hline 3L \\ - 3M \\ \hline 3 \end{array} \Rightarrow K + L + M = ?$$

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

$$\begin{array}{r} M \\ - \quad \quad \quad \\ \hline n \end{array} \begin{array}{l} M, n \in \mathbb{Z}^+ \\ \Rightarrow \max(M) + \min(M) = ? \end{array}$$

- A) 86 B) 87 C) 88 D) 89 E) 90

$$\begin{array}{r} A \\ - \quad \quad \quad \\ \hline B \end{array} \Rightarrow \max(A + B) = ?$$

- A) 69 B) 71 C) 72 D) 73 E) 75

$$\begin{array}{r} A A B \mid 9 \\ - A B \mid 8C \\ \hline C B \\ - 4 C \\ \hline A \end{array}$$

$$\Rightarrow A + B + C = ?$$

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

$$\begin{array}{r} A 0 B \mid C \\ - D B \mid C2 \\ \hline 1 B \\ - 1 D \\ \hline A \end{array}$$

$$\Rightarrow A + B + C + D = ?$$

- A) 26 B) 25 C) 24 D) 23 E) 22

$$\begin{array}{r} A A B \mid C \\ - A D \mid BC \\ \hline 1 B \\ - 1 6 \\ \hline D \end{array}$$

$$\Rightarrow B - A + C = ?$$

- A) 9 B) 10 C) 11 D) 12 E) 13

$$\begin{array}{r} A 1 A \mid B \\ - 5 A \mid CC \\ \hline 5 A \\ - 5 A \\ \hline 0 0 \end{array}$$

$$\Rightarrow A + B + C = ?$$

- A) 17 B) 18 C) 19 D) 20 E) 21

$$\begin{array}{r} A B B \mid 6 \\ - A B \mid B0 \\ \hline 0 B \end{array}$$

$$A > 1$$

$$\Rightarrow A + B = ?$$

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

$$\begin{array}{r} K K L \mid LK \\ - 7 M \mid 2N \\ \hline 2 1 L \\ - 1 K N \\ \hline 1 M \end{array}$$

$$\Rightarrow K + L + M + N = ?$$

- A) 25 B) 26 C) 27 D) 28 E) 29

$$\begin{array}{r} 8 B C \mid CA \\ - C A \mid 1A \\ \hline B 6 C \\ - B 2 9 \\ \hline B 5 \end{array}$$

$$\Rightarrow A + B + C = ?$$

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

$$\begin{array}{r} K L L \mid LK \\ - M 6 \mid MK \\ \hline 5 L \\ - K 9 \\ \hline L M \end{array}$$

$$\Rightarrow K + L + M = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$\begin{array}{r} A B C \\ + C A B \\ \hline 8 D D \end{array} \Rightarrow C = ?$$

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

$$\begin{array}{r} K L M \\ M K L \\ + M K K \\ \hline 1 4 9 L \end{array} \Rightarrow L = ?$$

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

$$\begin{array}{r} K L M \\ - L M 9 \\ \hline 1 1 6 \end{array} \Rightarrow K + L + M = ?$$

- A) 21 B) 20 C) 19 D) 18 E) 17

$$\begin{array}{r} A B \\ + C D \\ \hline 1 2 C \end{array} \quad \begin{array}{r} B A \\ - D C \\ \hline 1 9 \end{array} \Rightarrow B = ?$$

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

$$\begin{array}{r} T \\ + K \\ \hline 1 M \end{array} \quad \begin{array}{r} K \\ + L \\ \hline T \end{array} \quad \begin{array}{r} M \\ + L \\ \hline 8 \end{array} \Rightarrow T = ?$$

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

$$\begin{array}{r} K L M \\ + M T R \\ \hline 9 3 6 \end{array} \quad \begin{array}{r} L \\ + T \\ \hline 1 2 \end{array} \quad \begin{array}{r} R \\ - K \\ \hline L \end{array} \Rightarrow L = ?$$

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

$$\begin{array}{r} A B 7 C \\ - C B 3 \\ \hline 4 4 C 8 \end{array} \Rightarrow A + B + C = ?$$

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

$$\begin{array}{r} A 3 B A \\ - C B B \\ \hline 4 3 C C \end{array} \quad \begin{array}{r} A B \\ + B C \\ \hline ? \end{array}$$

- A) 165 B) 155 C) 145 D) 135 E) 125

9.
$$\begin{array}{r} A B \\ \times A B \\ \hline A C D \end{array}$$
 $6B = 3C = 2D$
 $\Rightarrow A + B + C + D = ?$

A) 16 B) 17 C) 18 D) 19 E) 20

10.
$$\begin{array}{r} A B 3 \\ \times 3 B \\ \hline 4 5 A C \\ + D D C 9 \\ \hline D A 4 B C \end{array}$$
 $\Rightarrow A + B + C + D = ?$

A) 23 B) 22 C) 21 D) 20 E) 19

11.
$$\begin{array}{r} A B C \\ + D E F \\ \hline 7 9 5 \end{array}$$

$$\begin{array}{r} D E F \\ - A B C \\ \hline 4 8 9 \end{array}$$
 $\Rightarrow A \cdot B \cdot C = ?$

A) 24 B) 20 C) 18 D) 16 E) 15

12.
$$\begin{array}{r} A B B \mid CA \\ - C A \mid 1D \\ \hline 1 1 B \\ - 9 0 \\ \hline D B \end{array}$$
 $\Rightarrow (A + B) - (C + D) = ?$

A) 4 B) 5 C) 6 D) 7 E) 8

13.
$$\begin{array}{r} K L L \\ + M K L \\ \hline 1 1 6 6 \end{array}$$
 $\Rightarrow M = ?$

A) 3 B) 4 C) 5 D) 6 E) 7

14.
$$\begin{array}{r} A B C \\ B B B \\ + C C A \\ \hline 1 9 3 B \end{array}$$
 $\Rightarrow A \cdot B + C = ?$

A) 20 B) 21 C) 22 D) 23 E) 24

15.
$$\begin{array}{r} 3 A B \\ \times C \\ \hline 2 6 A A \end{array}$$
 $\Rightarrow A + B + C = ?$

A) 16 B) 17 C) 18 D) 19 E) 20

16.
$$\begin{array}{r} A B A \mid C \\ - A C \mid B4 \\ \hline 2 A \\ - 2 0 \\ \hline A \end{array}$$
 $\Rightarrow A + B + C = ?$

A) 14 B) 15 C) 16 D) 17 E) 18

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$1. \quad \begin{array}{r} M T \\ + K L \\ \hline 9 1 \end{array} \quad \begin{array}{r} K L \\ - M T \\ \hline 4 3 \end{array} \Rightarrow M + T = ?$$

- A) 4 B) 6 C) 9 D) 11 E) 13

$$2. \quad \begin{array}{r} D C 6 A \\ + B 3 B 6 \\ \hline A A B C B \end{array} \Rightarrow C + D = ?$$

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

$$3. \quad \begin{array}{r} K 4 M \\ - M K L \\ \hline L 4 8 \end{array} \Rightarrow K + L + M = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

$$4. \quad \begin{array}{r} 7 A B \\ \times \quad 7 \\ \hline B 3 B B \end{array} \Rightarrow A = ?$$

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

$$5. \quad \begin{array}{r} C B A 7 \\ + C B 8 A \\ \hline 1 9 7 0 9 \end{array} \Rightarrow A + B + C = ?$$

- A) 22 B) 21 C) 20 D) 19 E) 18

$$6. \quad \begin{array}{r} 5 A B \\ \times \quad A B \\ \hline E 6 D C \\ + D E 7 D \\ \hline D B 3 A C \end{array} \Rightarrow (A + B + C) - (D + E) = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

$$7. \quad \begin{array}{r} A \\ \times B \\ \hline A \end{array} \quad \begin{array}{r} A B C \\ + C A B \\ \hline K 6 5 \end{array} \Rightarrow K = ?$$

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

$$8. \quad \begin{array}{r|l} 283 & a^2+5 \\ - & 13 \\ \hline & b^2+1 \end{array} \Rightarrow a + b = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

$$\begin{array}{r} 1 \ A \ 2 \ 3 \ B \\ - \quad \quad \quad \\ \hline 1 \end{array} \quad \Rightarrow \min(A+B) = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

$$\begin{array}{r} K \ L \ M \\ - \quad \quad \quad \\ \hline 4 \end{array}$$

$$\begin{array}{r} K \ 2 \ L \ 5 \ M \ 6 \\ - \quad \quad \quad \\ \hline ? \end{array}$$

- A) 3 B) 4 C) 5 D) 6 E) 8

$$\begin{array}{r} A \ B \ C \ D \ E \\ + \ E \ D \ C \ B \ A \\ \hline 8 \ 5 \ 7 \ 5 \ 7 \end{array} \quad \Rightarrow A+B+C+D+E = ?$$

- A) 26 B) 25 C) 24 D) 23 E) 22

$$\begin{array}{r} A \ A \ A \\ + \ B \ B \ B \\ \hline D \ C \ C \ 7 \end{array} \quad \Rightarrow A+B+C+D = ?$$

- A) 17 B) 22 C) 24 D) 26 E) 27

$$\begin{array}{r} 7 \ 1 \ 3 \\ + \ A \ B \ 9 \\ \hline C \ 5 \ 7 \ 2 \end{array} \quad \Rightarrow A \cdot B \cdot C = ?$$

- A) 12 B) 20 C) 24 D) 36 E) 40

$$\begin{array}{r} K \\ + \ L \\ \hline 7 \end{array} \quad \begin{array}{r} L \\ + \ M \\ \hline 9 \end{array} \quad \begin{array}{r} M \\ + \ K \\ \hline 8 \end{array} \quad \Rightarrow K+L+M = ?$$

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

$$15. \ A = ab3c7 \quad B = ab5c4$$

$$\begin{array}{r} A \ 24 \\ - \quad \quad \quad \\ \hline 1 \ 3 \end{array} \quad \Rightarrow \begin{array}{r} B \ 24 \\ - \quad \quad \quad \\ \hline ? \end{array} = ?$$

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

$$\begin{array}{r} K \\ \times \ M \\ \hline 1 \ 2 \end{array} \quad \begin{array}{r} K \ L \ M \\ - \ M \ L \ K \\ \hline 3 \ 9 \ 6 \end{array} \quad \Rightarrow K+M = ?$$

- A) 3 B) 5 C) 7 D) 8 E) 10

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

1.
$$\begin{array}{r} A B C \\ \times \quad 3 \\ \hline 8 A C \end{array} \Rightarrow A \cdot B \cdot C = ?$$

- A) 14 B) 28 C) 36 D) 70 E) 72

2.
$$\begin{array}{r} K 3 \overline{) L} \\ - 3 6 \quad K \\ \hline 7 \end{array} \quad \begin{array}{r} K L \\ \times \quad M \\ \hline 2 L K \end{array} \Rightarrow \begin{array}{r} K L \\ + L M \\ \hline ? \end{array}$$

- A) 135 B) 145 C) 154 D) 163 E) 171

3.
$$\begin{array}{r} K L M N \\ \times \quad T 5 \\ \hline 1 8 7 4 0 \\ + \cdot \cdot \cdot \cdot \\ \hline 9 3 7 0 0 \end{array} \Rightarrow K + L + M + N + T = ?$$

- A) 24 B) 25 C) 26 D) 27 E) 28

4.
$$\begin{array}{r} A B C \\ + 6 9 B \\ \hline 1 B C A \end{array} \Rightarrow A = ?$$

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

5.
$$\begin{array}{r} A B C \\ - B C 4 \\ \hline C 6 7 \end{array} \Rightarrow A + B + C = ?$$

- A) 15 B) 16 C) 17 D) 18 E) 19

6.
$$\begin{array}{r} K L M \\ + A B C \\ \hline 5 0 3 \end{array} \quad \begin{array}{r} K L M \\ - A B C \\ \hline 2 4 7 \end{array} \Rightarrow K + B + M = ?$$

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

7.
$$\begin{array}{r} K L M \overline{) K} \\ - K \quad 104 \\ \hline 0 L M \\ - L 4 \\ \hline 4 \end{array} \Rightarrow K + L + M = ?$$

- A) 16 B) 18 C) 19 D) 20 E) 21

8.
$$\begin{array}{r} K 6 L \\ \times \quad M 3 \\ \hline L L 8 6 \\ + 3 0 M 8 \\ \hline 3 L K 6 6 \end{array} \Rightarrow K + L + M = ?$$

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

9.
$$\begin{array}{r} 4B8 \\ + A2C \\ \hline 802 \end{array} \Rightarrow \begin{array}{r} AB \\ BC \\ + AC \\ \hline ? \end{array}$$

A) 133 B) 134 C) 144 D) 145 E) 155

10.
$$\begin{array}{r} ABA \\ + CBC \\ \hline 1069 \end{array} \Rightarrow A + B + C = ?$$

A) 12 B) 13 C) 15 D) 17 E) 18

11.
$$\begin{array}{r} 7AB \\ - A \\ \hline CA \\ - C5 \\ \hline CB \\ - C2 \\ \hline C \end{array} \Rightarrow A + B + C = ?$$

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

12.
$$\begin{array}{r} ABC \\ - CAB \\ \hline 21A \end{array} \Rightarrow A + B + C = ?$$

A) 14 B) 15 C) 16 D) 17 E) 18

13.
$$\begin{array}{r} 7AB \\ - BC7 \\ \hline 2BA \end{array} \Rightarrow A + B + C = ?$$

A) 14 B) 15 C) 16 D) 17 E) 18

14.
$$\begin{array}{r} AA \\ \times BB \\ \hline 1BC \\ + 1BC \\ \hline 1A5C \end{array} \Rightarrow A + B + C = ?$$

A) 9 B) 10 C) 11 D) 12 E) 13

15.
$$\begin{array}{r} ABB \\ + CCA \\ \hline 120C \end{array} \Rightarrow B = ?$$

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

16.
$$\begin{array}{r} KLM \\ MLK \\ + LKL \\ \hline 19LL \end{array} \Rightarrow M = ?$$

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

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In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$\begin{array}{r} \text{A B C} \\ \times \quad \text{C} \\ \hline 2 \text{ C A B} \end{array} \Rightarrow \text{A} + \text{B} \cdot \text{C} = ?$$

- A) 34 B) 37 C) 41 D) 45 E) 48

$$\begin{array}{r} 7 \text{ A B} \quad \text{B} \\ - \text{B} \quad \text{1CB} \\ \hline \text{A A} \\ - \text{A 0} \\ \hline \text{A B} \\ - \text{A B} \\ \hline 0 0 \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

- A) 11 B) 13 C) 14 D) 15 E) 16

$$\begin{array}{r} \text{A B 2} \\ - \text{C A B} \\ \hline \text{C B B} \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

- A) 16 B) 17 C) 18 D) 19 E) 20

$$\begin{array}{r} \text{K L K} \\ + \text{M K K} \\ \hline 1 1 \text{ M 4} \end{array} \Rightarrow \text{K} \cdot \text{L} + \text{M} = ?$$

- A) 37 B) 38 C) 39 D) 40 E) 41

$$\begin{array}{r} \text{P R S} \\ + \text{S R P} \\ \hline 1 4 7 3 \end{array} \Rightarrow \text{R} = ?$$

- A) 3 B) 4 C) 6 D) 7 E) 8

$$\begin{array}{r} \text{A} \\ \times \text{B} \\ \hline 2 4 \end{array} \quad \begin{array}{r} \text{A B} \\ + \text{B A} \\ \hline 1 2 1 \end{array} \Rightarrow |\text{A} - \text{B}| = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

$$\begin{array}{r} \text{A B} \\ \times \text{C} \\ \hline 1 3 4 \end{array} \quad \begin{array}{r} \text{A B} \\ + \text{C} \\ \hline 6 9 \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

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

$$\begin{array}{r} \text{K L M} \\ + \text{L M M} \\ \hline 1 \text{ L 1 6} \end{array} \Rightarrow \text{K} = ?$$

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

$$\begin{array}{r}
 ABA \mid B \\
 -A5 \mid 5A \\
 \hline
 CA \\
 -C1 \\
 \hline
 C
 \end{array}$$

$$\Rightarrow A + B + C = ?$$

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

$$\begin{array}{r}
 KL \\
 \times LK \\
 \hline
 \bullet \bullet 2 \\
 + 3 \bullet \bullet \\
 \hline
 L032
 \end{array}$$

$$\Rightarrow K = ?$$

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

$$\begin{array}{r}
 ABC \\
 \times 47 \\
 \hline
 \bullet \bullet \bullet \bullet \\
 + \bullet \bullet \bullet \bullet \\
 \hline
 1AC61
 \end{array}$$

$$\Rightarrow A + B + C = ?$$

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

$$\begin{array}{r}
 ABC \\
 -C26 \\
 \hline
 B1A
 \end{array}$$

$$\Rightarrow \max(A + B + C) = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

$$\begin{array}{r}
 ABC \mid D \\
 -AE \mid C9 \\
 \hline
 CC \\
 -CF \\
 \hline
 F
 \end{array}
 \qquad
 \begin{array}{r}
 F \\
 + C \\
 \hline
 9
 \end{array}$$

$$\Rightarrow A + B + C + D + E + F = ?$$

- A) 27 B) 28 C) 29 D) 30 E) 31

$$\begin{array}{r}
 A37 \\
 + 1B8 \\
 \hline
 96C
 \end{array}
 \qquad
 \Rightarrow A + B + C = ?$$

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

$$\begin{array}{r}
 ABC \\
 A A A \\
 + A C B \\
 \hline
 133C
 \end{array}
 \qquad
 \Rightarrow A + B - C = ?$$

- A) 5 B) 7 C) 8 D) 9 E) 10

$$\begin{array}{r}
 K L K \\
 L M K \\
 + M K L \\
 \hline
 1 M M L
 \end{array}
 \qquad
 \begin{array}{r}
 M \\
 - L \\
 \hline
 3
 \end{array}
 \qquad
 \Rightarrow M = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

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$$\begin{array}{r} A B C \\ + 1 A C \\ \hline 9 C B \end{array} \Rightarrow A + B + C = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

$$\begin{array}{r} 9 A B \quad C \\ - C \quad 1 C D \\ \hline B A \\ - B C \\ \hline 1 B \\ - 1 D \\ \hline 1 \end{array} \Rightarrow A + B + C + D = ?$$

- A) 15 B) 16 C) 17 D) 18 E) 19

$$\begin{array}{r} K L M \quad N P R \\ + N P R \quad - K L M \\ \hline 7 5 3 \quad 1 6 1 \end{array} \Rightarrow K \cdot R + P \cdot N + L \cdot M = ?$$

- A) 76 B) 77 C) 78 D) 79 E) 88

$$\begin{array}{r} A \quad 25 \\ - \quad x+3 \\ \hline x^2 \end{array} \quad A, x \in \mathbb{N}^+ \Rightarrow \max(A) = ?$$

- A) 175 B) 182 C) 187 D) 191 E) 195

$$\begin{array}{r} K L M \\ K L K \\ + M K L \\ \hline 1 1 7 M \end{array} \Rightarrow M = ?$$

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

$$\begin{array}{r} A B \quad B A \\ \times B \quad \times A \\ \hline C C B \quad C 2 A \end{array} \Rightarrow A + B + C = ?$$

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

$$\begin{array}{r} A B C \\ - C A A \\ \hline 6 4 B \end{array} \Rightarrow B = ?$$

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

$$\begin{array}{r} A B 3 \quad B \\ + 6 A C \quad + C \\ \hline 1 4 C B \quad 1 3 \end{array} \Rightarrow A + B + C = ?$$

- A) 21 B) 20 C) 19 D) 18 E) 17

9.
$$\begin{array}{r} KLM \\ + ABC \\ \hline 578 \end{array} \quad \begin{array}{r} KBM \\ - AL C \\ \hline 214 \end{array} \Rightarrow (KAL) = ?$$

A) 319 B) 318 C) 326 D) 362 E) 382

10.
$$\begin{array}{r} 7AB \\ - B6A \\ \hline C2C \end{array} \Rightarrow A + B + C = ?$$

A) 14 B) 15 C) 16 D) 17 E) 18

11.
$$\begin{array}{r} K8L \\ \times LM \\ \hline L L N L \\ + 7 M 4 \\ \hline N N K L \end{array} \Rightarrow K + L + M + N = ?$$

A) 16 B) 17 C) 18 D) 19 E) 20

12.
$$\begin{array}{r} KLM \\ \times KM \\ \hline N7L \\ + 5NT \\ \hline T7ML \end{array} \Rightarrow K + L + M + N + T = ?$$

A) 28 B) 29 C) 30 D) 31 E) 32

13.
$$\begin{array}{r} AB2 \\ + AC4 \\ \hline CAB \end{array} \Rightarrow A + C = ?$$

A) 9 B) 10 C) 11 D) 12 E) 13

14.
$$\begin{array}{r} ABCD \\ - BCD3 \\ \hline 5568 \end{array} \Rightarrow A + B + C + D = ?$$

A) 17 B) 18 C) 19 D) 20 E) 21

15.
$$\begin{array}{r} ABCD \\ + BACD \\ \hline 13256 \end{array} \Rightarrow A + B + C + D = ?$$

A) 25 B) 24 C) 23 D) 22 E) 21

16.
$$\begin{array}{r} ABCD \\ - AAC \\ \hline 20D \\ - A90 \\ \hline AD \end{array} \Rightarrow C = ?$$

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

Aşağıdaki sorularda verilen işlemlerde her harf sıfırdan ve birbirinden farklı birer rakamı göstermektedir. Buna göre, soru işareti ile belirtilen harf ya da işlemin değerini bulunuz.

In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$\begin{array}{r} \text{A B C} \\ + \text{C 6 4} \\ \hline \text{7 4 A} \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

$$\begin{array}{r} \text{A B 4} \\ \times \text{C D} \\ \hline \text{C E B B} \\ + \text{D E B} \\ \hline \text{1 0 A E B} \end{array} \Rightarrow \text{A} + \text{B} + \text{C} + \text{D} + \text{E} = ?$$

- A) 23 B) 24 C) 25 D) 26 E) 27

$$\begin{array}{r} \text{K L M K} \mid \text{ML} \\ - \text{K 1 6} \mid \text{LM} \\ \hline \text{K 9 K} \\ - \text{K 7 0} \\ \hline \text{2 K} \end{array} \Rightarrow \text{K} + \text{L} + \text{M} = ?$$

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

$$\begin{array}{r} \text{K L 4} \\ - \text{L M M} \\ \hline \text{3 6 6} \end{array} \Rightarrow \text{K} = ?$$

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

$$\begin{array}{r} \text{A B C} \\ + \text{D E F} \\ \hline \text{9 8 2} \end{array} \quad \begin{array}{r} \text{D B F} \\ - \text{A E C} \\ \hline \text{5 5 6} \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

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

$$\begin{array}{r} \text{4 7 A B} \\ \times \text{C} \\ \hline \text{A B 3 C B} \end{array} \quad \begin{array}{r} \text{B} \\ + \text{C} \\ \hline \text{1 4} \end{array} \Rightarrow \text{A} + \text{B} + \text{C} = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

$$\begin{array}{r} \text{9 A B} \mid \text{C} \\ - \text{9} \mid \text{C05} \\ \hline \text{0 A B} \\ - \text{A D} \\ \hline \text{A} \end{array} \Rightarrow \text{B} = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

$$\begin{array}{r} \text{A} \\ + \text{B} \\ \hline \text{C D} \end{array} \quad \begin{array}{r} \text{C} \\ + \text{D} \\ \hline \text{B} \end{array} \Rightarrow \text{A} = ?$$

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

9.

$$\begin{array}{r} A B C \\ + C B A \\ \hline 1716 \end{array}$$

$$C > A$$

$$\Rightarrow A + B = ?$$

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

10.

$$\begin{array}{r} A B C \\ + C A B \\ \hline 1260 \end{array}$$

$$\begin{array}{r} A \\ \times B \\ \hline 56 \end{array}$$

$$\Rightarrow C = ?$$

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

11.

$$\begin{array}{r} A B C \\ B C A \\ + C A B \\ \hline 1998 \end{array}$$

$$\begin{array}{r} A B \\ + B A \\ \hline C C \end{array}$$

$$\Rightarrow C = ?$$

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

12.

$$\begin{array}{r} A B 1 \\ + B 1 A \\ \hline C A 4 \end{array}$$

$$\Rightarrow A + B + C = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

13.

$$\begin{array}{r} A A B \\ + B B C \\ \hline 111A \end{array}$$

$$\begin{array}{r} B \\ - A \\ \hline 2 \end{array}$$

$$\Rightarrow C = ?$$

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

14.

$$\begin{array}{r} A B 9 \\ \times C A \\ \hline D 7 B \\ + 11 D 6 \\ \hline 1213B \end{array}$$

$$\Rightarrow A + B + C + D = ?$$

- A) 19 B) 18 C) 17 D) 16 E) 15

15.

$$\begin{array}{r} A B B \\ \times C D \\ \hline 1 C A B \\ + A 0 1 D \\ \hline A 1 B B B \end{array}$$

$$\begin{array}{r} B \\ + C \\ \hline 15 \end{array}$$

$$\Rightarrow A + B + C + D = ?$$

- A) 21 B) 22 C) 23 D) 24 E) 25

16.

$$\begin{array}{r} K L M \\ L M K \\ + L M L \\ \hline 138K \end{array}$$

$$\begin{array}{r} M L \mid K \\ - \quad \mid X \\ \hline Y \end{array}$$

$$\Rightarrow X + Y = ?$$

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

Aşağıdaki sorularda verilen işlemlerde her harf sıfırdan ve birbirinden farklı birer rakamı göstermektedir. Buna göre, soru işareti ile belirtilen harf ya da işlemin değerini bulunuz.

In the operations which are given in the following questions, each letter stands for a different numeral and different from zero. Accordingly, find the value of the letter or operation indicated by questions mark.

$$1. \quad \begin{array}{r} A B C \\ + D E F \\ \hline 1 3 6 3 \end{array} \quad \begin{array}{r} D E F \\ - A B C \\ \hline 4 1 9 \end{array} \quad \Rightarrow A + B + C = ?$$

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

$$2. \quad \begin{array}{r} A B C \\ - C B A \\ \hline 1 9 A \end{array} \quad \Rightarrow A + C = ?$$

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

$$3. \quad \begin{array}{r} A B C A \\ \times \quad B \\ \hline A 6 C 3 C \end{array} \quad \begin{array}{r} A \\ + B \\ \hline 1 1 \end{array} \quad \Rightarrow C = ?$$

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

$$4. \quad \begin{array}{r} A B B \mid C \\ - A C \mid CC \\ \hline A B \\ - A C \\ \hline A \end{array} \quad \begin{array}{r} A \\ + B \\ \hline 9 \end{array} \quad \Rightarrow C = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

$$5. \quad \begin{array}{r} A B C \\ \times \quad D E \\ \hline 1 9 B B \\ + A B C \\ \hline B C 7 B \end{array} \quad \Rightarrow A \cdot B \cdot C + D \cdot E = ?$$

A) 28 B) 30 C) 32 D) 34 E) 36

$$6. \quad \begin{array}{r} A B C \\ + C C A \\ \hline 7 9 7 \end{array} \quad \Rightarrow \begin{array}{r} B \\ - A \\ \hline ? \end{array}$$

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

$$7. \quad \begin{array}{r} A B C 2 \\ - B C B C \\ \hline D A 3 4 \end{array} \quad \Rightarrow A + B + C + D = ?$$

A) 16 B) 17 C) 18 D) 19 E) 20

$$8. \quad \begin{array}{r} A B C D \\ - K L M N \\ \hline 2 2 5 7 \end{array} \quad \begin{array}{r} A L C N \\ + K B M D \\ \hline 1 4 8 0 5 \end{array} \quad \Rightarrow A + K - D + C - M - N = ?$$

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

9.
$$\begin{array}{r} KLMN \\ KMNL \\ MNKL \\ +MKLL \\ \hline P0MM9 \end{array}$$

$$\begin{array}{r} NML \\ +LMK \\ \hline 1630 \end{array} \Rightarrow P + M + K = ?$$

- A) 9 B) 10 C) 11 D) 12 E) 13

10.
$$\begin{array}{r} AB \\ \times 3 \\ \hline KKL \end{array}$$

$$\begin{array}{r} AB \\ \times 4 \\ \hline KMN \end{array}$$

$$\begin{array}{r} KKL \\ +KMN \\ \hline 266 \end{array} \Rightarrow A \cdot B = ?$$

- A) 18 B) 24 C) 35 D) 38 E) 42

11.
$$\begin{array}{r} KLM \mid L \\ -L \mid 1MK \\ \hline 2L \\ -21 \\ \hline NM \\ -NM \\ \hline 00 \end{array} \Rightarrow K + L + M + N = ?$$

- A) 21 B) 22 C) 23 D) 24 E) 25

12.
$$\begin{array}{r} AB \mid B \\ -AB \mid C \\ \hline 00 \end{array}$$

$$\begin{array}{r} B \\ +C \\ \hline 14 \end{array} \Rightarrow A = ?$$

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

13.
$$\begin{array}{r} AB \\ \times K \\ \hline 318 \end{array}$$

$$\begin{array}{r} AB \\ \times L \\ \hline 212 \end{array} \Rightarrow \begin{array}{r} AB \\ \times KL \\ \hline ? \end{array}$$

A) 3392 B) 3018 C) 2438 D) 1342 E) 530

14.
$$\begin{array}{r} ABCD \\ + ABC \\ \hline 7518 \end{array} \Rightarrow D = ?$$

A) 4 B) 5 C) 6 D) 7 E) 8

15.
$$\begin{array}{r} 192 \mid AB \\ - \mid K \\ \hline 0 \end{array}$$

$$\begin{array}{r} 144 \mid AB \\ - \mid L \\ \hline 0 \end{array} \Rightarrow \begin{array}{r} KL \\ \times AB \\ \hline ? \end{array}$$

A) 336 B) 1632 C) 2064 D) 2162 E) 4164

16.
$$\begin{array}{r} \cdot \cdot \cdot \\ \times 49 \\ \hline \cdot \cdot \cdot \cdot \\ + 1548 \\ \hline KL \end{array} \Rightarrow K + L = ?$$

- A) 7 B) 8 C) 9 D) 10 E) 14

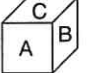
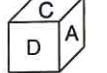
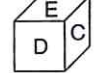


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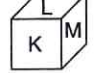
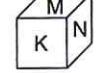
THREE DIMENSIONAL OBJECTS

12
TEST
Tests

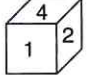
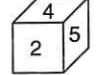
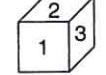
138
SORU
Questions

1.  $\equiv$  $\equiv$  $\equiv$?

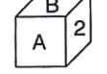
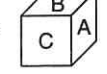
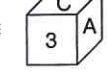
- A)  B)  C) 
D)  E) 

4.  $\equiv$  $\equiv$  $\equiv$?

- A)  B)  C) 
D)  E) 

2.  $\equiv$  $\equiv$  $\equiv$?

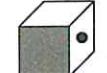
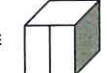
- A)  B)  C) 
D)  E) 

5.  $\equiv$  $\equiv$  $\equiv$?

- A)  B)  C) 
D)  E) 

3.  $\equiv$  $\equiv$  $\equiv$?

- A)  B)  C) 
D)  E) 

6.  $\equiv$  $\equiv$  $\equiv$?

- A)  B)  C) 
D)  E) 

7. $\begin{array}{|c|c|} \hline 1 & 4 \\ \hline 3 & 6 \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline 1 & 2 \\ \hline 6 & 3 \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline 5 & 4 \\ \hline 6 & 2 \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline 1 & 3 \\ \hline 2 & 6 \\ \hline \end{array} \equiv ?$

- A) $\begin{array}{|c|c|} \hline 3 & 4 \\ \hline 5 & 6 \\ \hline \end{array}$ B) $\begin{array}{|c|c|} \hline 2 & 6 \\ \hline 3 & 4 \\ \hline \end{array}$ C) $\begin{array}{|c|c|} \hline 4 & 5 \\ \hline 2 & 6 \\ \hline \end{array}$
D) $\begin{array}{|c|c|} \hline 6 & 5 \\ \hline 1 & 3 \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline 6 & 1 \\ \hline 3 & 4 \\ \hline \end{array}$

8. $\begin{array}{|c|c|} \hline a_6 & a_2 \\ \hline a_1 & a_5 \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline a_2 & a_5 \\ \hline a_1 & a_3 \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline a_1 & a_5 \\ \hline a_3 & a_4 \\ \hline \end{array} \equiv ?$

- A) $\begin{array}{|c|c|} \hline a_6 & a_4 \\ \hline a_5 & a_3 \\ \hline \end{array}$ B) $\begin{array}{|c|c|} \hline a_6 & a_3 \\ \hline a_2 & a_4 \\ \hline \end{array}$ C) $\begin{array}{|c|c|} \hline a_3 & a_5 \\ \hline a_4 & a_6 \\ \hline \end{array}$
D) $\begin{array}{|c|c|} \hline a_1 & a_4 \\ \hline a_6 & a_3 \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline a_3 & a_4 \\ \hline a_2 & a_5 \\ \hline \end{array}$

9. $\begin{array}{|c|c|} \hline a & e \\ \hline f & d \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline e & c \\ \hline d & b \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline e & a \\ \hline c & f \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline b & c \\ \hline a & e \\ \hline \end{array} \equiv ?$

- A) $\begin{array}{|c|c|} \hline c & d \\ \hline a & e \\ \hline \end{array}$ B) $\begin{array}{|c|c|} \hline e & a \\ \hline b & f \\ \hline \end{array}$ C) $\begin{array}{|c|c|} \hline e & f \\ \hline c & d \\ \hline \end{array}$
D) $\begin{array}{|c|c|} \hline d & f \\ \hline a & e \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline d & f \\ \hline e & c \\ \hline \end{array}$

10. $\begin{array}{|c|c|} \hline z & t \\ \hline w & v \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline v & w \\ \hline z & t \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline z & v \\ \hline t & w \\ \hline \end{array} \equiv ?$

- A) $\begin{array}{|c|c|} \hline w & t \\ \hline v & z \\ \hline \end{array}$ B) $\begin{array}{|c|c|} \hline z & x \\ \hline y & v \\ \hline \end{array}$ C) $\begin{array}{|c|c|} \hline x & t \\ \hline y & v \\ \hline \end{array}$
D) $\begin{array}{|c|c|} \hline w & y \\ \hline x & z \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline v & w \\ \hline z & t \\ \hline \end{array}$

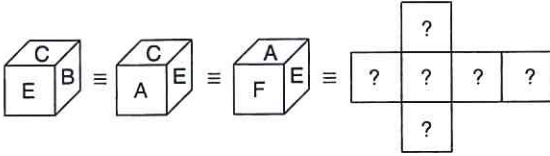
11. $\begin{array}{|c|c|} \hline \blacksquare & \triangle \\ \hline \blacksquare & \triangle \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline \blacksquare & \triangle \\ \hline \blacksquare & \triangle \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline \blacksquare & \triangle \\ \hline \blacksquare & \triangle \\ \hline \end{array} \equiv ?$

- A) $\begin{array}{|c|c|} \hline \triangle & \blacksquare \\ \hline \triangle & \blacksquare \\ \hline \end{array}$ B) $\begin{array}{|c|c|} \hline \blacksquare & \triangle \\ \hline \blacksquare & \triangle \\ \hline \end{array}$ C) $\begin{array}{|c|c|} \hline \blacksquare & \triangle \\ \hline \blacksquare & \triangle \\ \hline \end{array}$
D) $\begin{array}{|c|c|} \hline \triangle & \blacksquare \\ \hline \triangle & \blacksquare \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline \blacksquare & \triangle \\ \hline \blacksquare & \triangle \\ \hline \end{array}$

12. $\begin{array}{|c|c|} \hline A & \ddot{O} \\ \hline E & \ddot{O} \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline U & \ddot{O} \\ \hline \ddot{U} & \ddot{O} \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline E & U \\ \hline O & \ddot{U} \\ \hline \end{array} \equiv \begin{array}{|c|c|} \hline \ddot{U} & \ddot{O} \\ \hline A & \ddot{O} \\ \hline \end{array} \equiv ?$

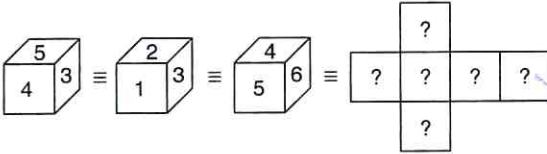
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D) $\begin{array}{|c|c|} \hline U & \ddot{O} \\ \hline O & \ddot{U} \\ \hline \end{array}$ E) $\begin{array}{|c|c|} \hline E & \ddot{O} \\ \hline U & \ddot{U} \\ \hline \end{array}$

1.



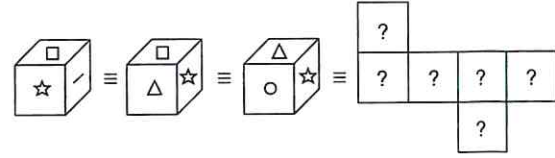
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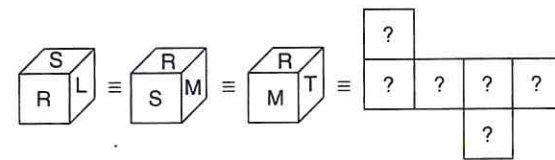
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- D)
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3.



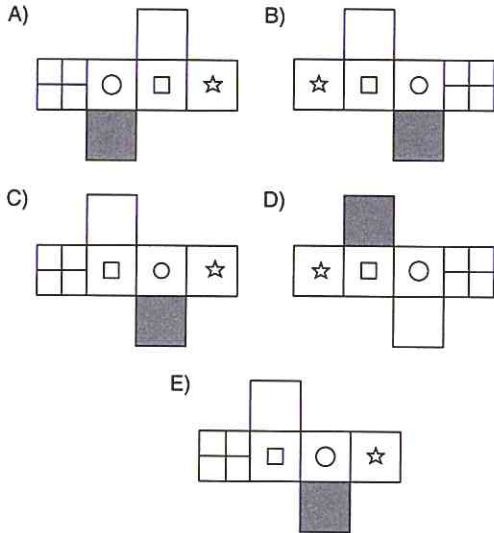
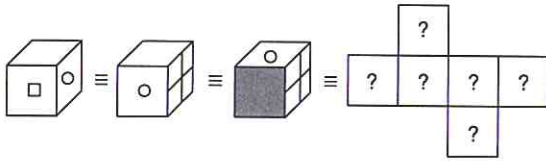
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- D)
- E)

4.

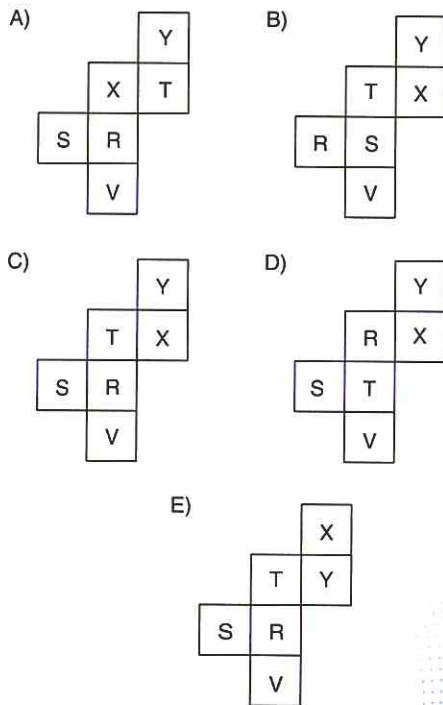
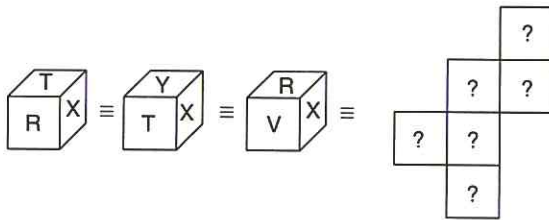


- A)
- B)
- C)
- D)
- E)

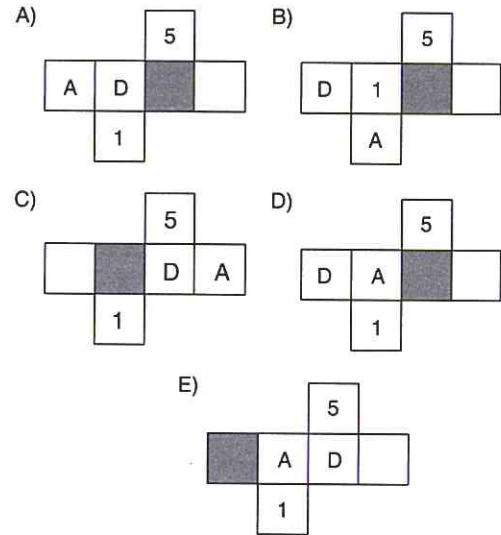
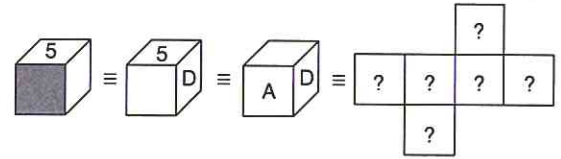
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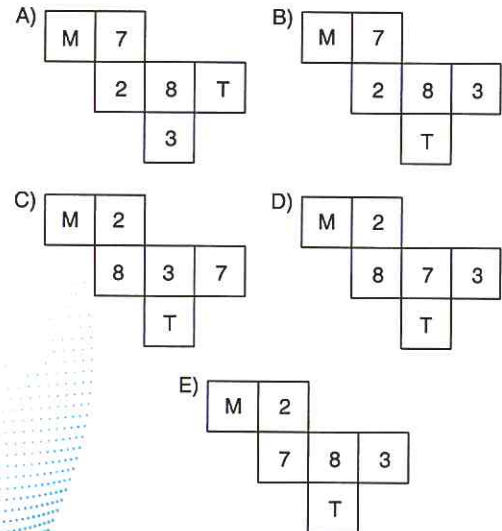
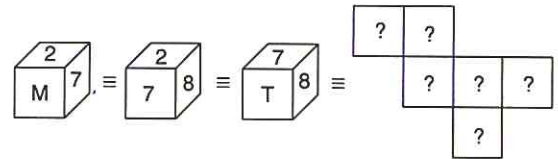
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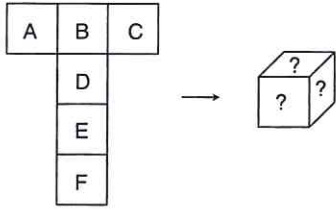
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8.

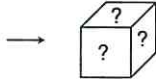
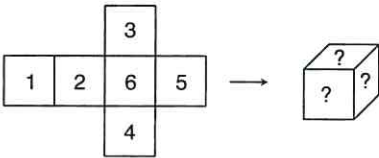


1.



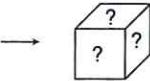
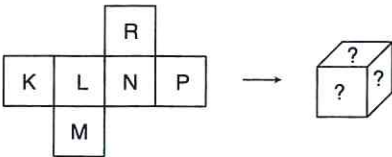
- A) B) C)
D) E)

2.



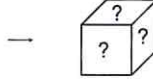
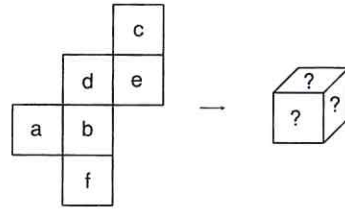
- A) B) C)
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3.



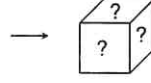
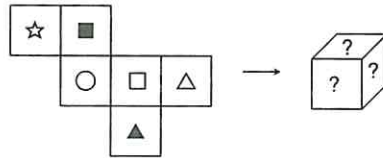
- A) B) C)
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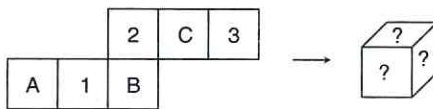
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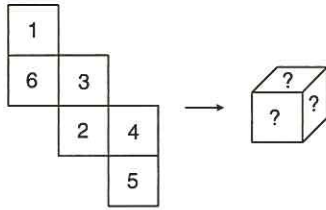
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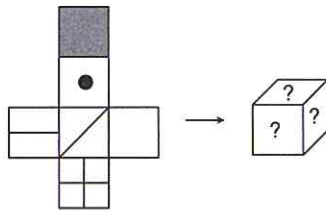
- A) B) C)
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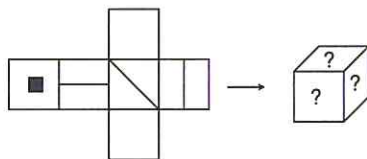
- A) B) C)
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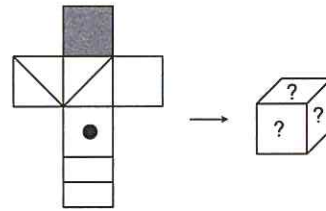
- A) B) C)
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9.



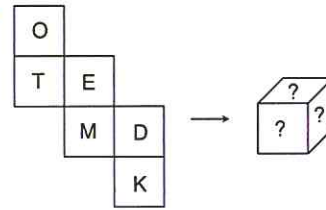
- A) B) C)
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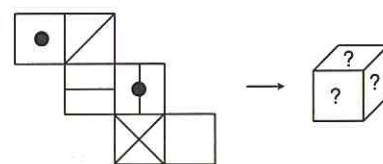
- A) B) C)
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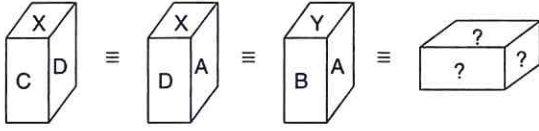
- A) B) C)
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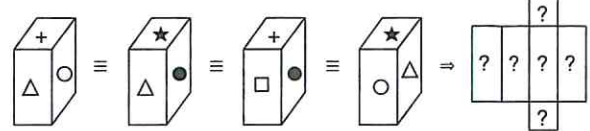
- A) B) C)
D) E)

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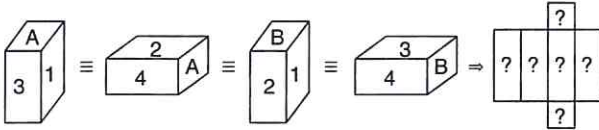
- A) B)
C) D)
E)

3.



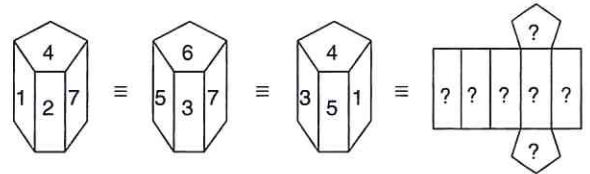
- A)
B)
C)
D)
E)

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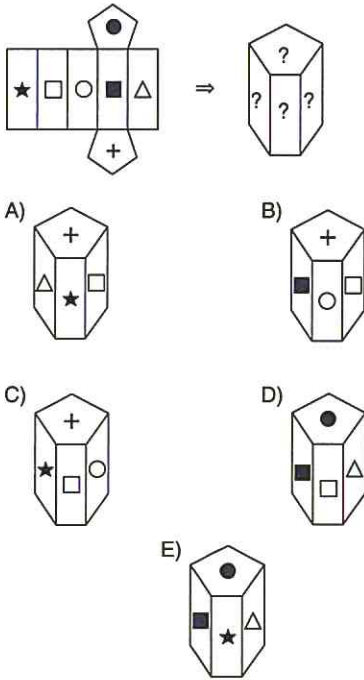
- A)
B)
C)
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E)

4.

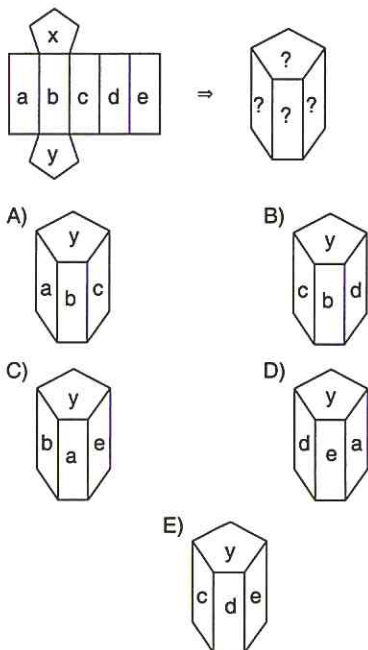


- A)
B)
C)
D)
E)

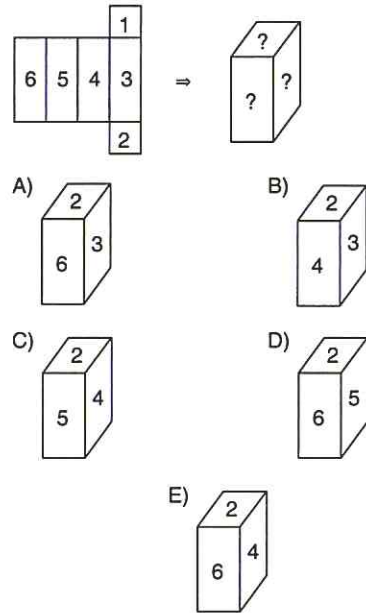
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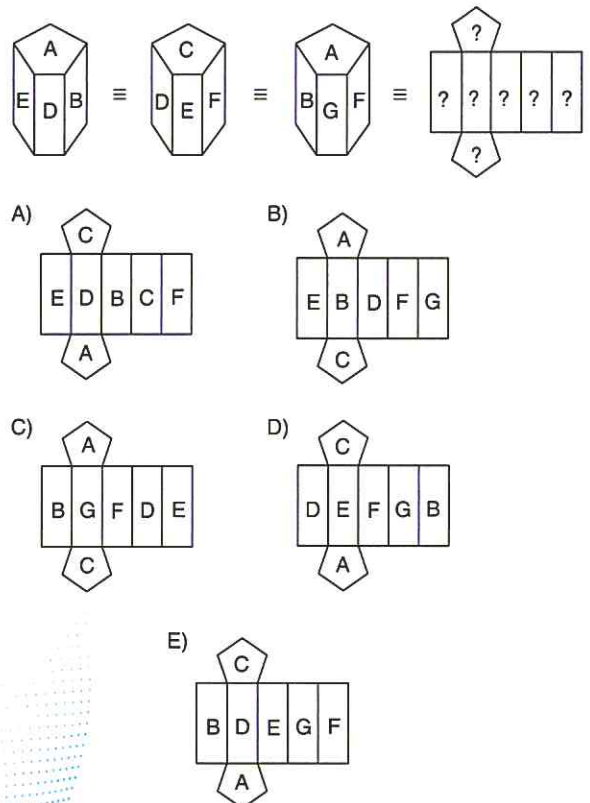
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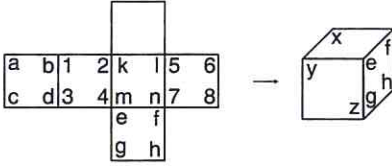
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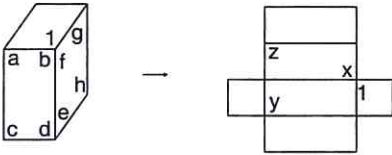
1.



$\Rightarrow (x, y, z) = (?, ?, ?)$

- A) (n, 2, 3) B) (1, 4, 1) C) (3, 2, l)
D) (1, 2, 3) E) (l, 2, 3)

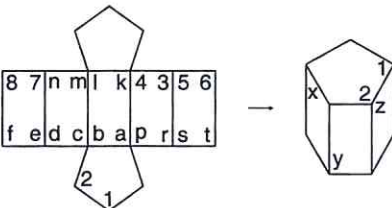
2.



$\Rightarrow (x, y, z) = (?, ?, ?)$

- A) (d, e, f) B) (f, c, h) C) (b, h, c)
D) (a, h, c) E) (b, e, c)

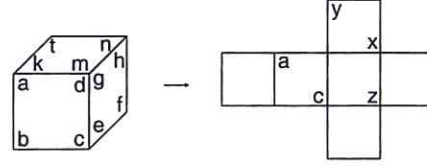
3.



$\Rightarrow (x, y, z) = (?, ?, ?)$

- A) (b, m, c) B) (b, k, c) C) (c, k, r)
D) (r, k, c) E) (a, m, e)

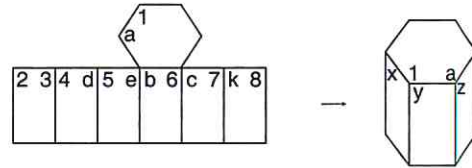
4.



$\Rightarrow (x, y, z) = (?, ?, ?)$

- A) (m, t, f) B) (n, k, f) C) (t, n, e)
D) (t, m, e) E) (n, m, f)

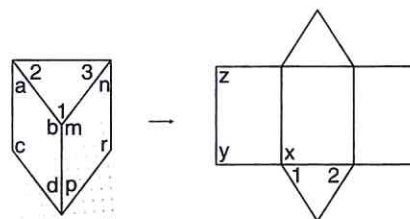
5.



$\Rightarrow (x, y, z) = ?$

- A) (4, d, 5) B) (3, d, e) C) (2, 4, 5)
D) (4, 5, b) E) (d, e, 6)

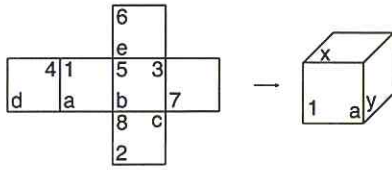
6.



$\Rightarrow (x, y, z) = ?$

- A) (b, n, r) B) (m, a, c) C) (b, n, p)
D) (m, a, d) E) (a, p, c)

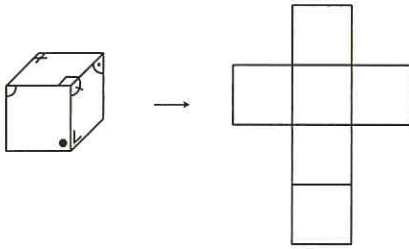
7.



$\Rightarrow (x, y) = ?$

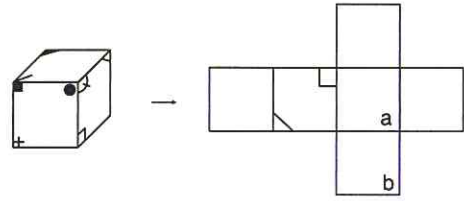
- A) (b, 6) B) (b, 7) C) (5, c)
D) (5, 2) E) (4, 3)

8.



- A) B)
C) D)
E)

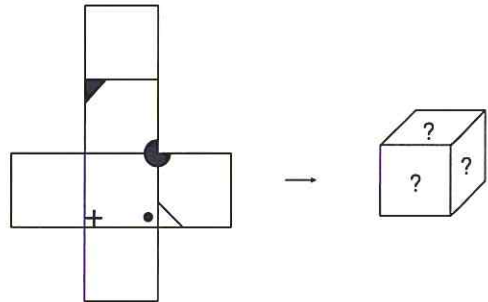
9.



$\Rightarrow (a, b) = ?$

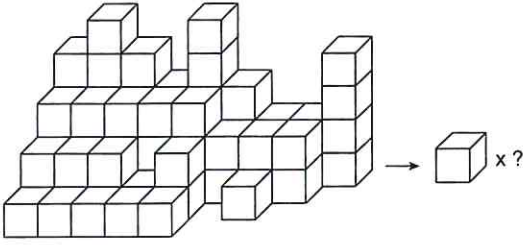
- A) (+, /) B) (■, ●) C) (∇, ●)
D) (●, +) E) (■, ∇)

10.



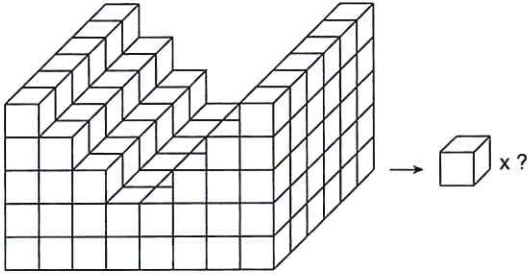
- A) B) C)
D) E)

1.



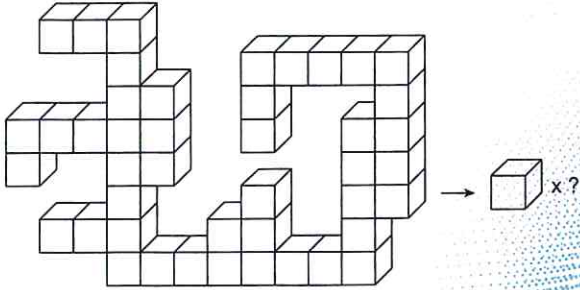
- A) 66 B) 67 C) 68 D) 69 E) 70

2.



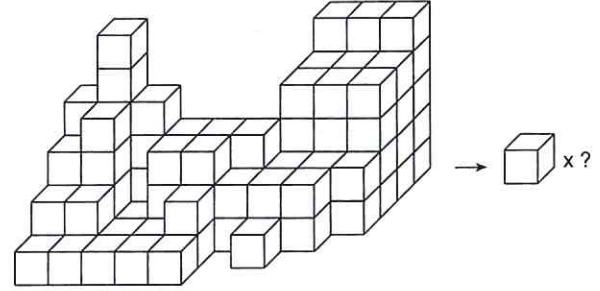
- A) 168 B) 167 C) 166 D) 165 E) 164

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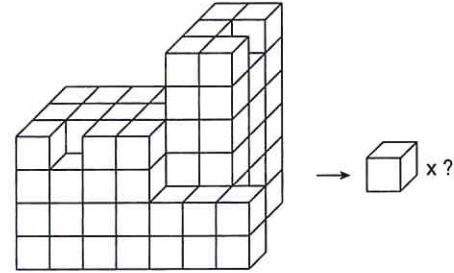
- A) 40 B) 41 C) 42 D) 43 E) 44

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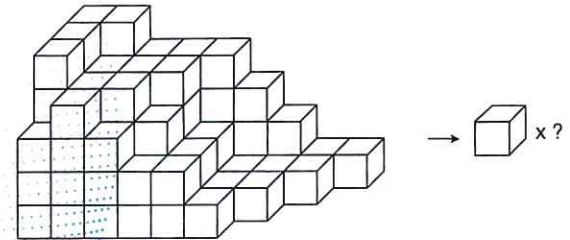
- A) 97 B) 99 C) 100 D) 101 E) 102

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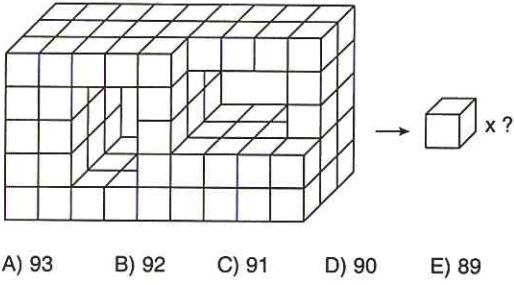
- A) 85 B) 86 C) 87 D) 88 E) 89

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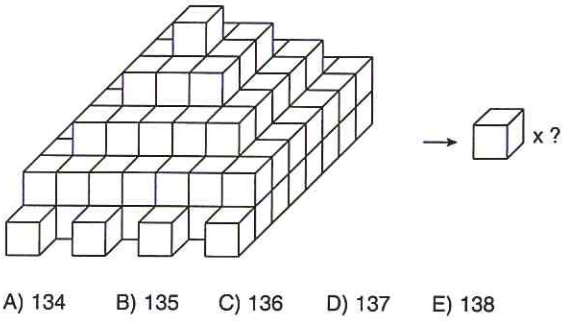


- A) 85 B) 86 C) 87 D) 88 E) 89

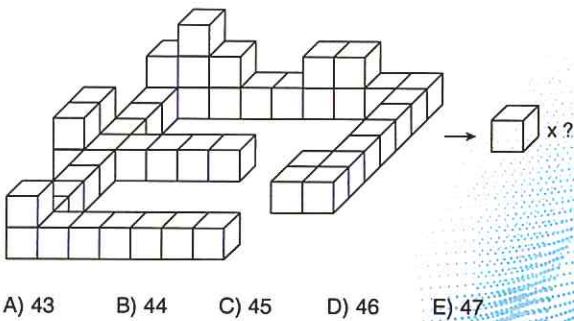
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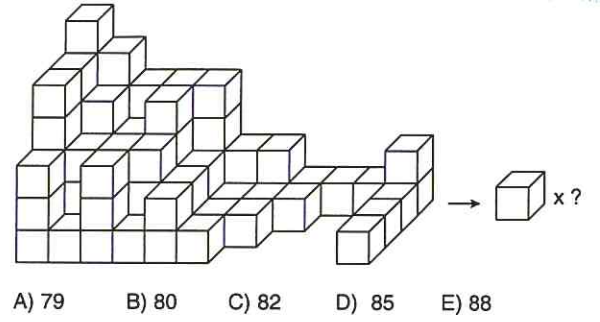
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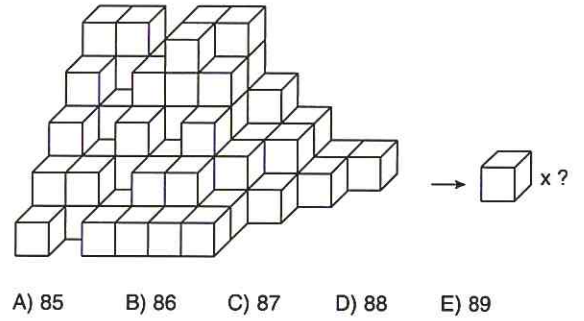
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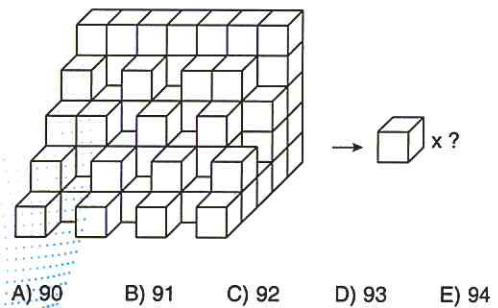
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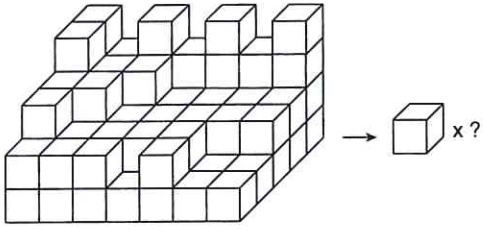
11.



12.

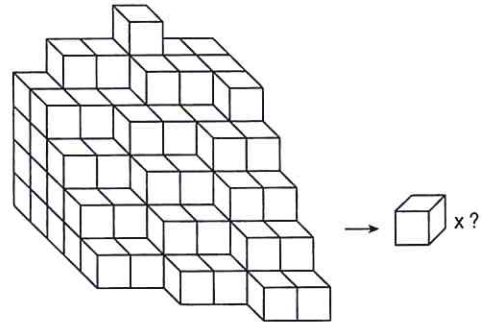


1.



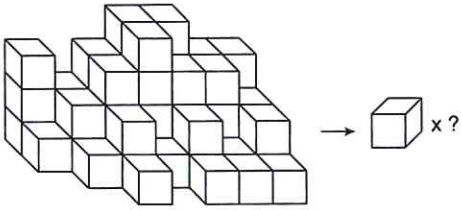
A) 80 B) 81 C) 82 D) 83 E) 84

4.



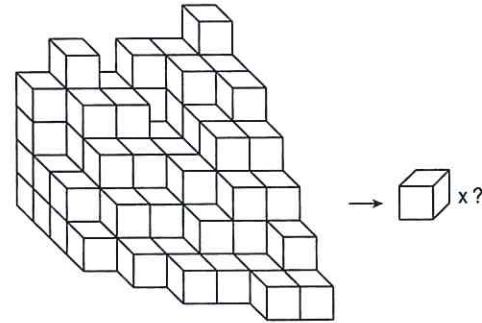
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2.



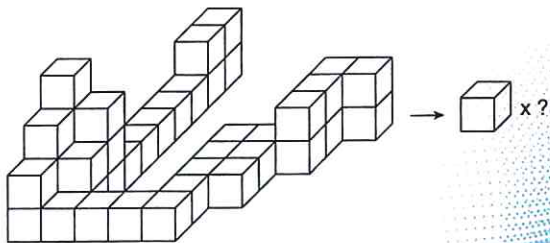
A) 49 B) 50 C) 51 D) 52 E) 53

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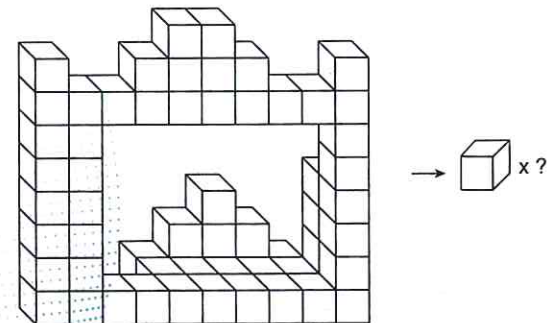
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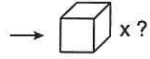
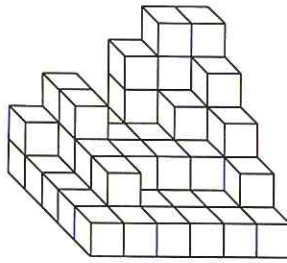
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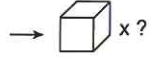
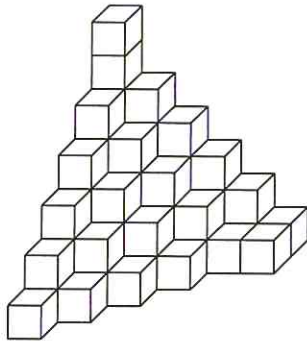
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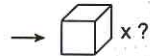
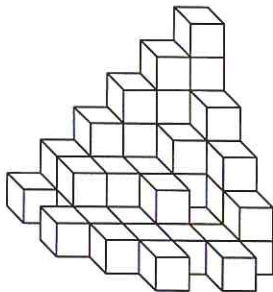
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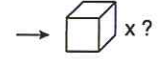
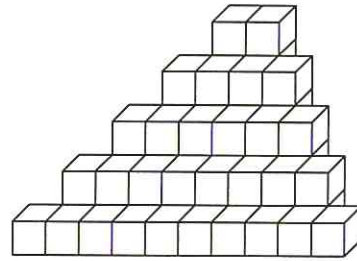
- A) 58 B) 57 C) 56 D) 55 E) 54

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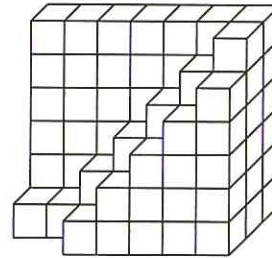
- A) 51 B) 51 C) 50 D) 49 E) 48

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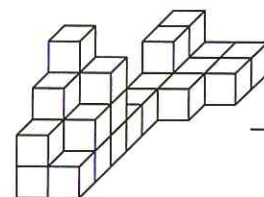
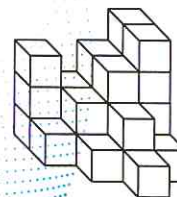
- A) 67 B) 68 C) 69 D) 70 E) 71

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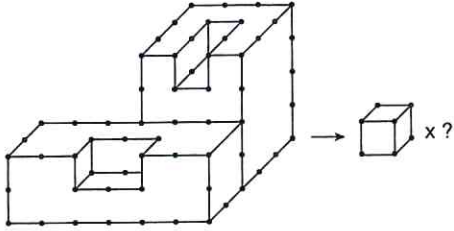
- A) 77 B) 78 C) 79 D) 80 E) 81

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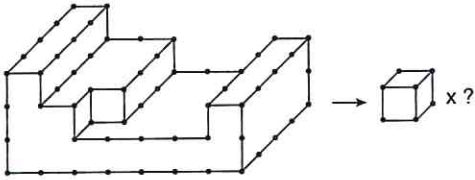
- A) 51 B) 52 C) 53 D) 54 E) 55

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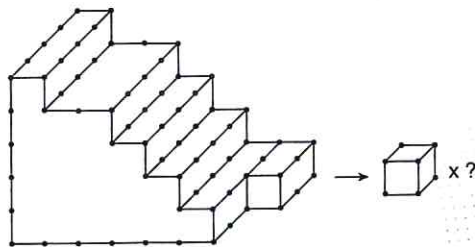
A) 51 B) 52 C) 54 D) 55 E) 56

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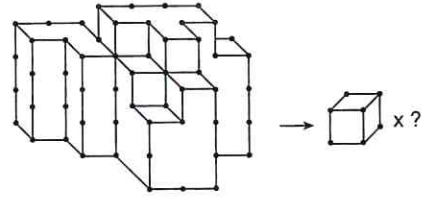
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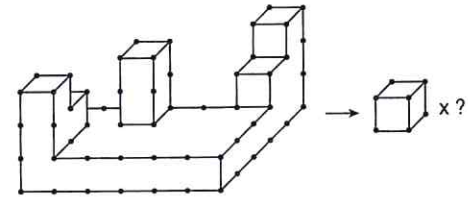
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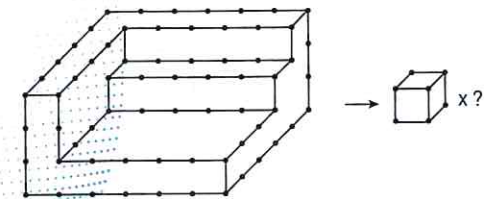
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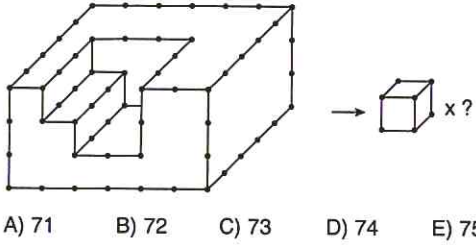
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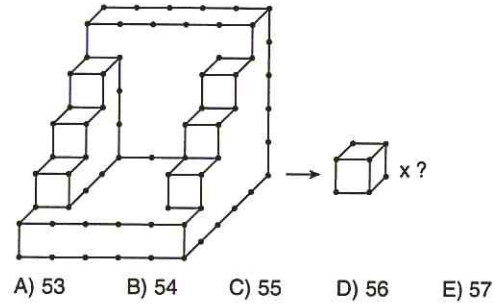


A) 52 B) 53 C) 54 D) 55 E) 56

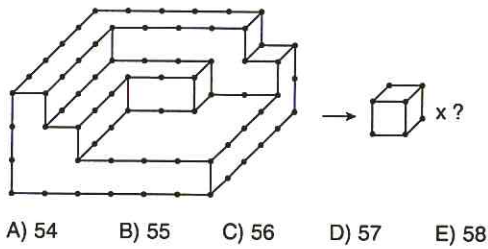
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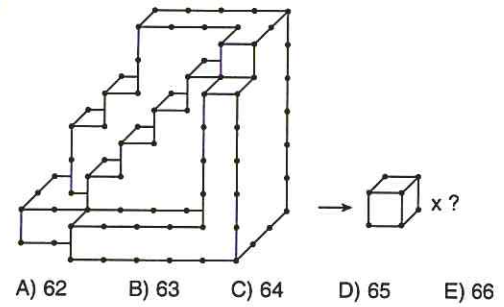
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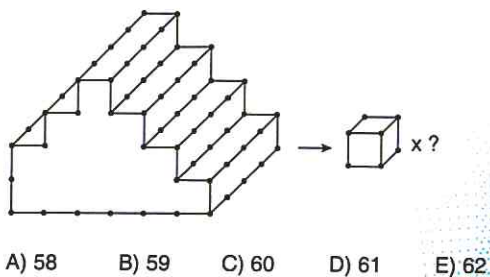
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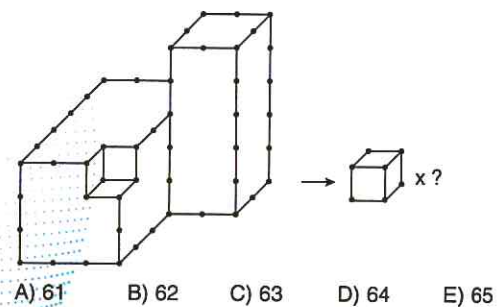
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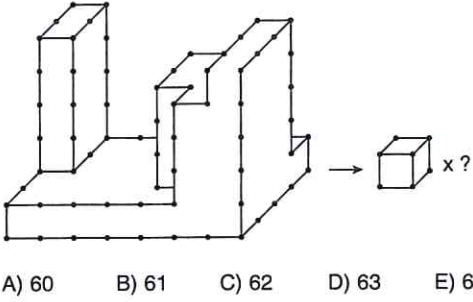
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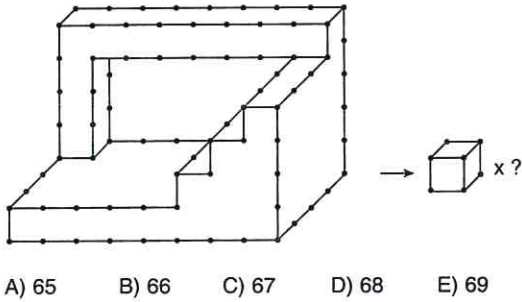
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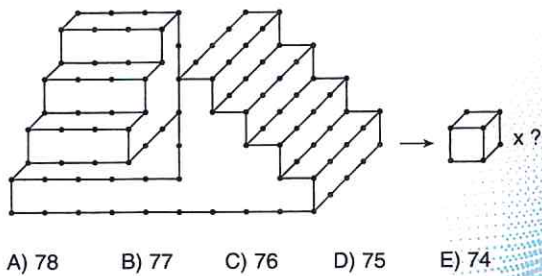
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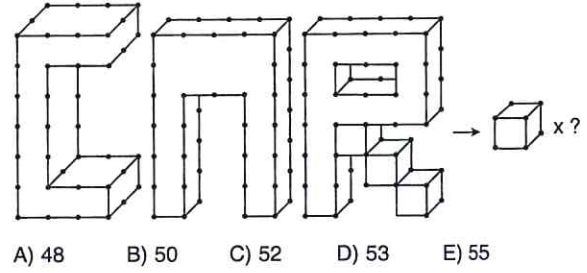
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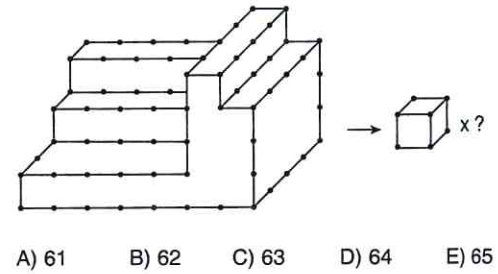
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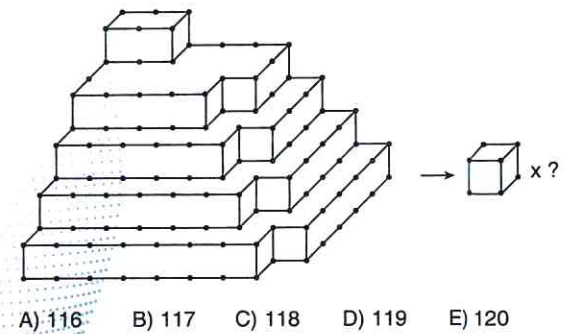
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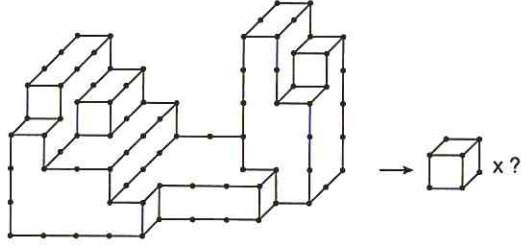
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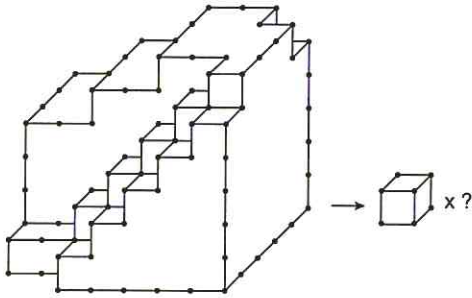


7.



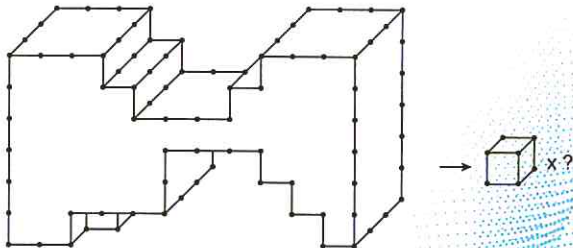
- A) 59 B) 60 C) 61 D) 62 E) 63

8.



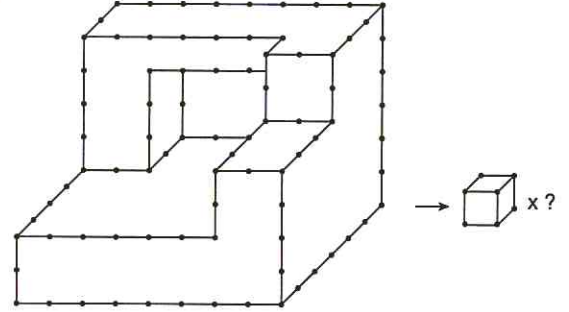
- A) 141 B) 142 C) 143 D) 144 E) 145

9.



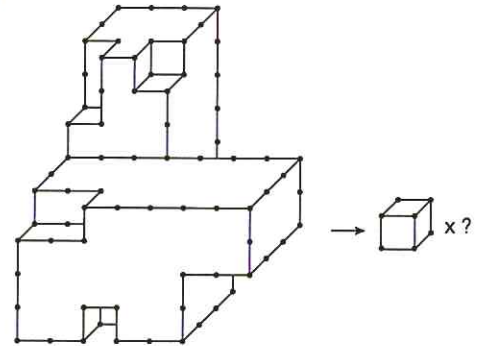
- A) 127 B) 128 C) 129 D) 130 E) 131

10.



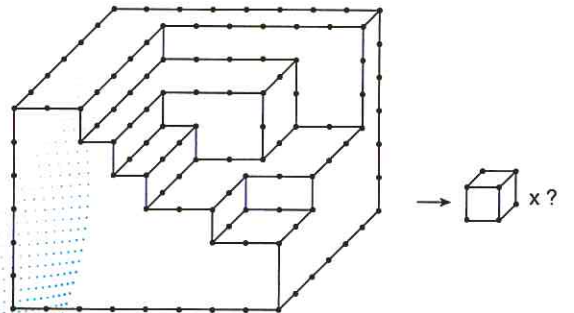
- A) 156 B) 157 C) 158 D) 159 E) 160

11.



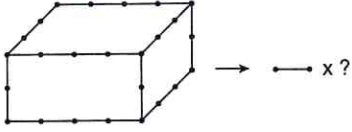
- A) 130 B) 129 C) 128 D) 127 E) 126

12.



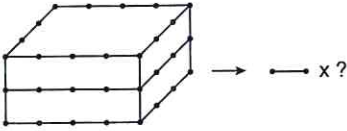
- A) 216 B) 217 C) 218 D) 219 E) 220

1.



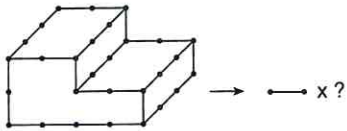
- A) 37 B) 36 C) 35 D) 34 E) 33

2.



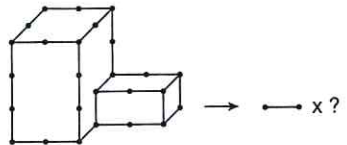
- A) 47 B) 48 C) 49 D) 50 E) 51

3.



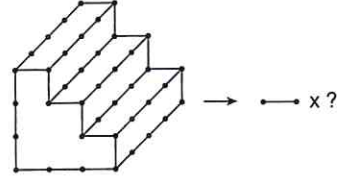
- A) 40 B) 41 C) 42 D) 43 E) 44

4.



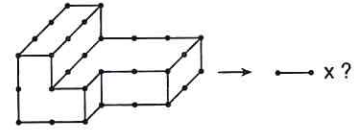
- A) 40 B) 41 C) 42 D) 43 E) 44

5.



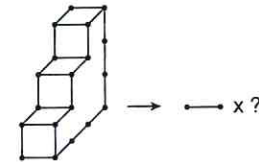
- A) 54 B) 55 C) 56 D) 57 E) 58

6.



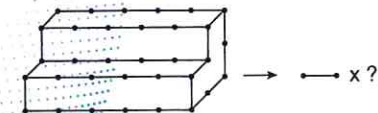
- A) 44 B) 43 C) 42 D) 41 E) 40

7.



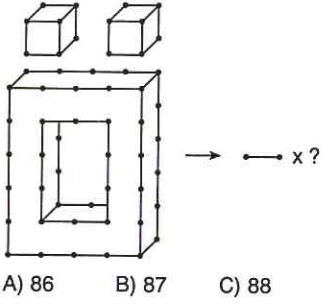
- A) 28 B) 29 C) 30 D) 31 E) 32

8.

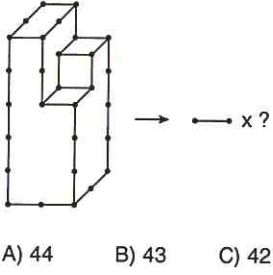


- A) 47 B) 46 C) 45 D) 44 E) 43

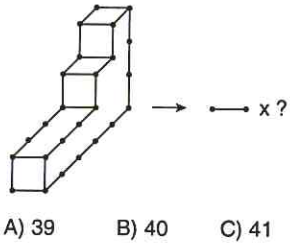
9.



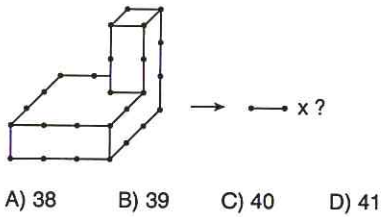
10.



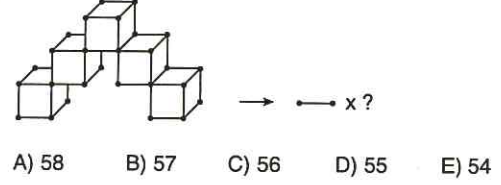
11.



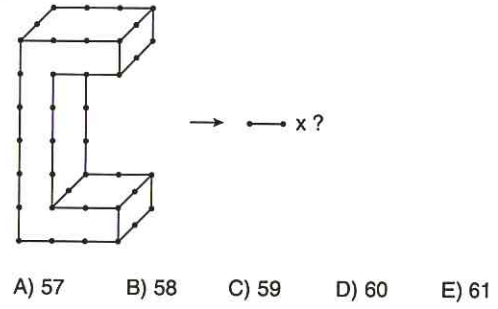
12.



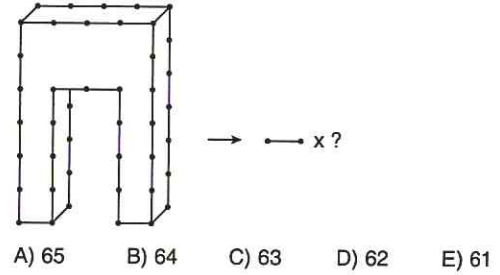
13.



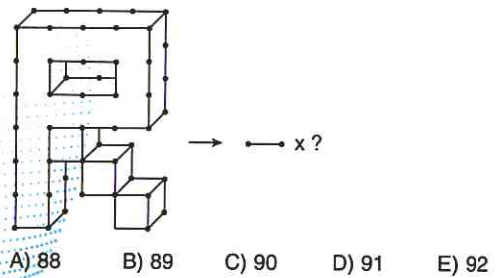
14.



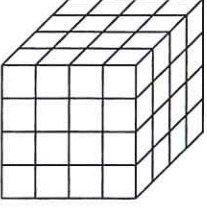
15.



16.



1.

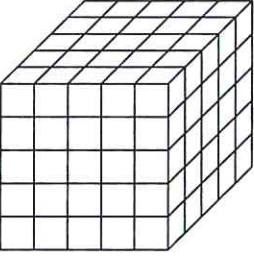


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the urther layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

- A) 16 B) 18 C) 20 D) 22 E) 24

2.

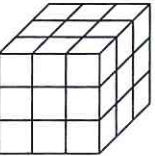


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, üç yüzeyi boyalı kaç küp vardır?

When the urther layer of the object above consisting of small cubes gets painted, how many cubes are there with three surface painted?

- A) 4 B) 5 C) 6 D) 7 E) 8

3.

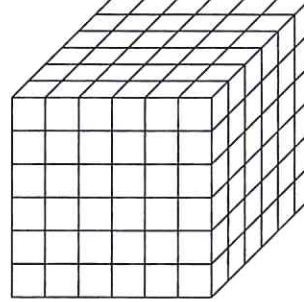


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, bir yüzeyi boyalı kaç küp vardır?

When the urther layer of the object above consisting of small cubes gets painted, how many cubes are there with one surface painted?

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

4.

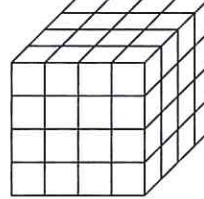


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiç bir yüzeyi boyalı olmayan kaç küp vardır?

When the urther layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 56 B) 64 C) 72 D) 84 E) 96

5.

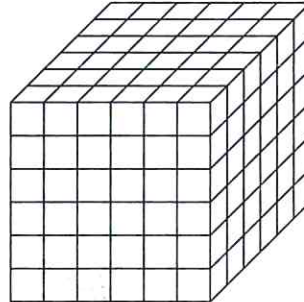


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiç bir yüzeyi boyalı olmayan kaç küp vardır?

When the urther layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 8 B) 10 C) 12 D) 14 E) 16

6.

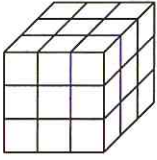


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the urther layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

- A) 32 B) 40 C) 44 D) 48 E) 52

7.

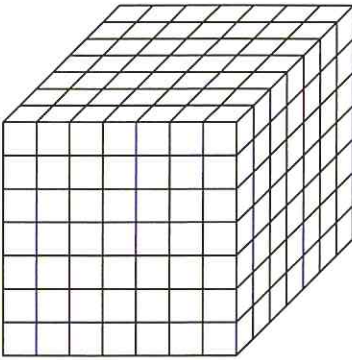


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the outh layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

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

8.

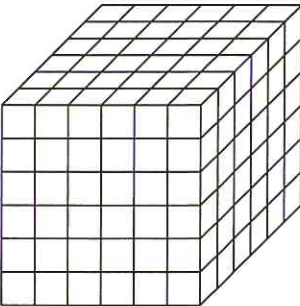


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiç bir yüzeyi boyalı olmayan kaç küp vardır?

When the outh layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 8 B) 27 C) 64 D) 125 E) 216

9.

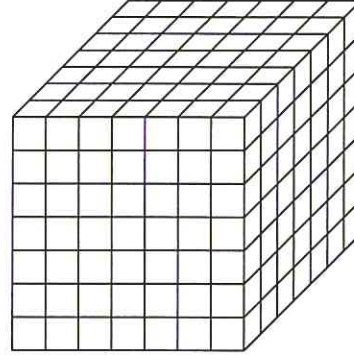


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, bir yüzeyi boyalı kaç küp vardır?

When the outh layer of the object above consisting of small cubes gets painted, how many cubes are there with one surface painted?

- A) 60 B) 72 C) 84 D) 96 E) 120

10.

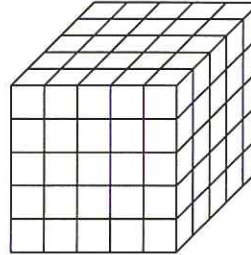


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the outh layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

- A) 36 B) 40 C) 44 D) 48 E) 60

11.

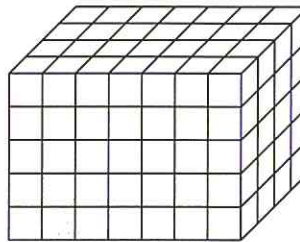


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiçbir yüzeyi boyalı olmayan kaç küp vardır?

When the outh layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 9 B) 16 C) 25 D) 27 E) 36

12.

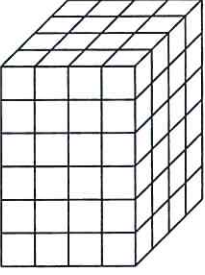


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the outh layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

- A) 32 B) 36 C) 40 D) 44 E) 48

1.

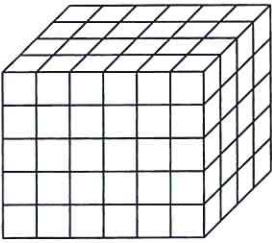


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiçbir yüzeyi boyalı olmayan kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 16 B) 18 C) 20 D) 22 E) 24

2.

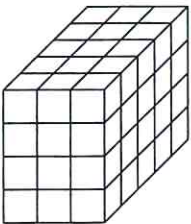


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiçbir yüzeyi boyalı olmayan kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 24 B) 26 C) 28 D) 30 E) 32

3.

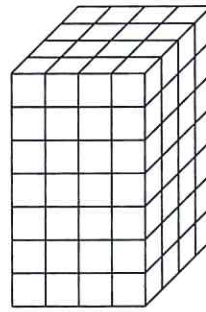


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

- A) 16 B) 20 C) 24 D) 28 E) 32

4.

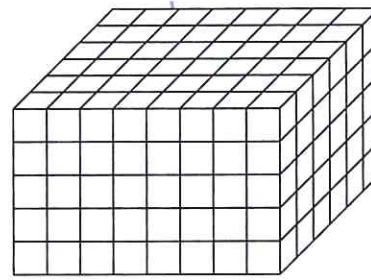


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, bir yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with one surface painted?

- A) 42 B) 48 C) 56 D) 60 E) 72

5.

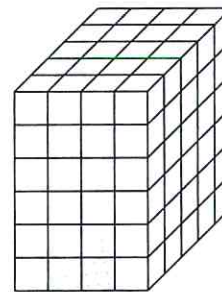


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiçbir yüzeyi boyalı olmayan kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 56 B) 64 C) 72 D) 80 E) 96

6.

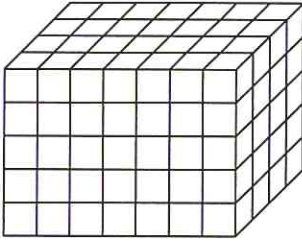


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, bir yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with one surface painted?

- A) 52 B) 58 C) 62 D) 68 E) 72

7.

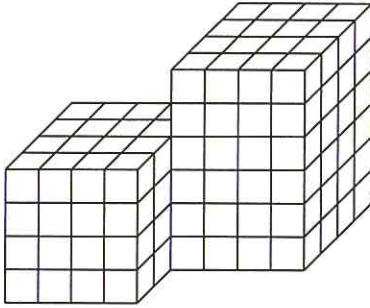


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, iki yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with two surface painted?

- A) 52 B) 48 C) 44 D) 40 E) 36

8.

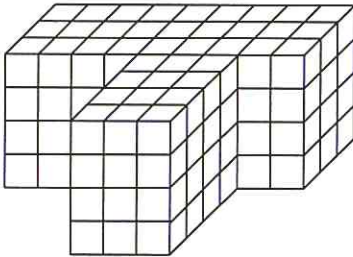


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with surface painted?

- A) 49 B) 48 C) 47 D) 46 E) 45

9.

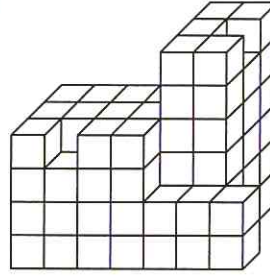


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with surface painted?

- A) 62 B) 64 C) 66 D) 68 E) 70

10.

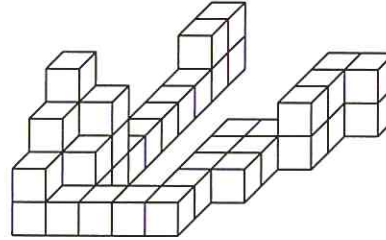


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with surface painted?

- A) 0 B) 1 C) 2 D) 3 E) 4

11.

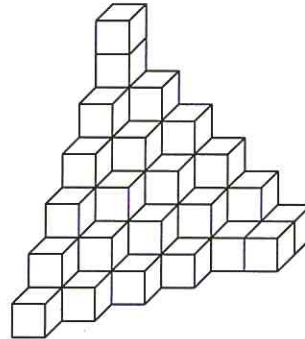


Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, hiçbir yüzeyi boyalı olmayan kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with no surface painted?

- A) 0 B) 1 C) 2 D) 3 E) 4

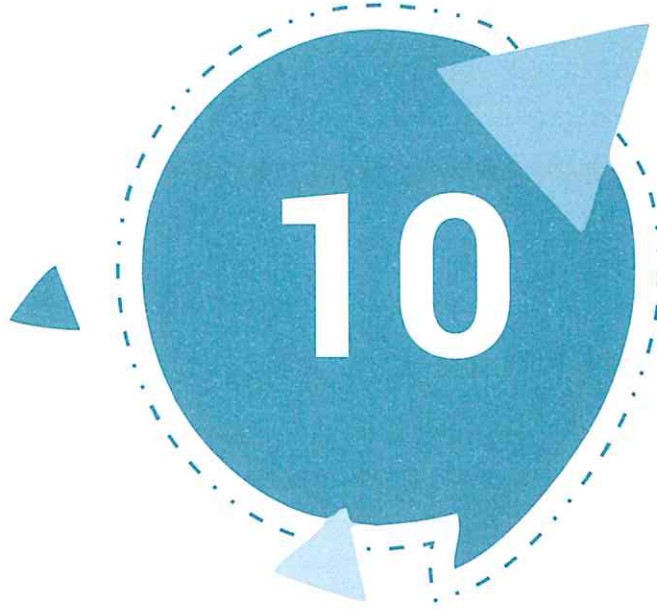
12.



Yukarıdaki eş küplerden oluşan şeklin dış yüzeyi boyandığında, yüzeyi boyalı kaç küp vardır?

When the outhter layer of the object above consisting of small cubes gets painted, how many cubes are there with surface painted?

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



TABLÖLAR TABLES

37
TEST
Tests

444
SORU
Questions

1.

+	a	b	c
a	10		8
b			
c		7	

$\Rightarrow b = ?$

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

4.

+	a	b	c
a		9	
b			
c			8

$\Rightarrow a + b + c = ?$

- A) 13 B) 14 C) 15 D) 16 E) 17

2.

+	a	b	c
a			14
b		4	
c		7	

$\Rightarrow a = ?$

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

5.

+	a	b	c
a	$3a-2$		
b		$3a$	k
c	13		

$\Rightarrow c = ?$

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

3.

+	a	b	c
a		11	
b			12
c	15		

$\Rightarrow \frac{b}{c-a} = ?$

- A) 3 B) 4 C) 5 D) 6 E) 7

6.

+	a	b	c
a		6	
b			9
c	13		

$\Rightarrow c = ?$

- A) 6 B) 7 C) 8 D) 9 E) 10

7.

+	a	b	c
a		4b	
b	12		
c			

$$\Rightarrow a - b = ?$$

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

8.

+	a	b	c
a	14		
b	k		
c		12	

$$b - c = 10$$

$$\Rightarrow k = ?$$

- A) 8 B) 12 C) 14 D) 16 E) 18

9.

+	a	b	c
a		25	
b		20	
c	36		

$$\Rightarrow c = ?$$

- A) 18 B) 19 C) 20 D) 21 E) 22

10.

+	a	b	c
a	4a - 10		
b		5b - 9	
c			c + 7

$$\Rightarrow a + b + c = ?$$

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

11.

+	a	b	c
a	c + 12		
b		$\frac{a+c}{2}$	
c			4c - 8

$$\Rightarrow a + b + c = ?$$

- A) 15 B) 17 C) 18 D) 19 E) 20

12.

+	a	b	c
a	3a - 7		
b		a + 3	
c			2b + 8

$$\Rightarrow a + b + c = ?$$

- A) 21 B) 22 C) 23 D) 24 E) 25

1.

+	a	b	c
a		8	
b			10
c	12		

$\Rightarrow c = ?$

- A) 3 B) 4 C) 5 D) 6 E) 7

2.

+	a	b	c
a		10	
b			9
c	3		

$\Rightarrow a = ?$

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

3.

+	a	b	c
a	b	18	
b			
c		23	

$\Rightarrow c - a = ?$

- A) 11 B) 9 C) 6 D) 5 E) 3

4.

+	a	b	c
a	c		
b	14		4c
c			

$\Rightarrow c = ?$

- A) 2 B) 4 C) 6 D) 8 E) 12

5.

+	a	b	c
a		3a	
b			7a
c			

$c - a = 8$

$\Rightarrow c = ?$

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

6.

+	a	b	c
a	a^2		3a
b			
c		11	

$\Rightarrow b = ?$

- A) 3 B) 5 C) 7 D) 9 E) 11

7.

+	a	b	c
a		17	
b			
c			

$$a - b = 5$$

$$\Rightarrow b = ?$$

- A) 10 B) 9 C) 8 D) 7 E) 6

8.

+	a	b	c
a		8	7
b			
c		13	

$$\Rightarrow a + b + c = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

9.

+	a	b	c
a		4c	
b			10
c			6

$$\Rightarrow a = ?$$

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

10.

+	a	b	c
a		4b	
b	8		
c	15		

$$\Rightarrow \sqrt{c} = ?$$

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

11.

+	a	b	c
a		4c	
b			16
c	2b		

$$\Rightarrow a = ?$$

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

12.

+	a	b	c
a		3c + 1	
b			a + 3
c	b + 5		

$$\Rightarrow c = ?$$

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

1.

+	a	b	c
a		18	
b			4c
c	7c		

$\Rightarrow a = ?$

- A) 2 B) 4 C) 6 D) 8 E) 12

2.

+	a	b	c
a		38	
b			
c	33	31	

$\Rightarrow a + b + c = ?$

- A) 29 B) 41 C) 47 D) 51 E) 63

3.

+	a	b	c
a			15
b	8		
c		11	

$\Rightarrow c^2 - (a + b) = ?$

- A) 56 B) 61 C) 67 D) 73 E) 79

4.

+	a	b	c
a		8	
b			5a + 6
c	b + 6		

$\Rightarrow a \cdot b \cdot c = ?$

- A) 106 B) 120 C) 130 D) 145 E) 160

5.

+	a	b	c
a		9	7
b			
c		8	

$\Rightarrow a \cdot c = ?$

- A) 8 B) 9 C) 12 D) 15 E) 20

6.

+	a	b	c
a		10	
b			15
c	19		

$\Rightarrow \frac{c}{b} = ?$

- A)
- $\frac{7}{3}$
- B)
- $\frac{12}{7}$
- C) 4 D) 6 E) 12

7.

+	a	b	c
a		5c	
b			12
c	3c		

$\Rightarrow a = ?$

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

8.

+	a	b	c
a			$b - 3$
b	$4c + 9$		
c		$2a + 1$	

$\Rightarrow a = ?$

- A) 2 B) 4 C) 6 D) 9 E) 11

9.

+	a	b	c
a		13	
b			8
c			

$$b - c = 4$$

$$\Rightarrow a = ?$$

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

10.

+	a	b	c
a		9	
b			
c		$4a$	a

$\Rightarrow c = ?$

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

11.

+	a	b	c
a	$b - 1$		10
b		18	
c			

$\Rightarrow c = ?$

- A) 3 B) 5 C) 6 D) 9 E) 11

12.

+	a	b	c
a	16	$3b$	
b			13
c			

$\Rightarrow c = ?$

- A) 3 B) 5 C) 7 D) 9 E) 11

1.

+	a	b	c
a		3c	
b			
c			K

$$a + b + c = 20$$

$$\Rightarrow K = ?$$

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

2.

+	a	b	c
a	6		4c
b	4a		
c		K	L

$$\Rightarrow K - L = ?$$

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

3.

+	a	b	c
a			2b
b		16	
c		17	

$$\Rightarrow a = ?$$

- A) 3 B) 5 C) 7 D) 9 E) 11

4.

+	a	b	c
a			39
b	52		
c		47	

$$\Rightarrow c = ?$$

- A) 17 B) 22 C) 28 D) 30 E) 32

5.

+	a	b	c
a		39	
b			31
c	26		

$$\Rightarrow c = ?$$

- A) 7 B) 9 C) 15 D) 17 E) 21

6.

+	a	b	c
a		2b + 1	
b			28
c	3a + 2		

$$\Rightarrow c - a = ?$$

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

7.

+	a	b	c
a		12	
b			
c	14		

$$a + b + c = 17$$

$$\Rightarrow a = ?$$

- A) 9 B) 7 C) 5 D) 4 E) 3

8.

+	a	b	c
a	b		
b			
c			3b

$$a + b + c = 18$$

$$\Rightarrow c = ?$$

- A) 2 B) 3 C) 4 D) 6 E) 9

9.

+	a	b	c
a		16	
b			14
c	12		

$$\Rightarrow b = ?$$

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

10.

+	a	b	c
a		10	9
b			
c		7	

$$\Rightarrow a + b - c = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

11.

+	a	b	c
a		$3a + 1$	
b			$2b - 3$
c	$3c - 11$		

$$\Rightarrow a \cdot b = ?$$

- A) 28 B) 36 C) 45 D) 55 E) 72

12.

+	a	b	c
a			$3c + 1$
b	19		
c		$4b + 2$	

$$\Rightarrow c = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

1.

+	a	b	c
a			$2b - 1$
b	$c + 2$		
c		$2a + 8$	

$\Rightarrow a \cdot c = ?$

- A) 18 B) 24 C) 28 D) 36 E) 40

4.

+	a	b	c
a		17	
b			39
c	24		

$\Rightarrow a + b + c = ?$

- A) 33 B) 40 C) 47 D) 54 E) 61

2.

+	a	b	c
a	$\frac{c}{2}$		
b		$6a$	
c		98	

$\Rightarrow c - b = ?$

- A) 14 B) 16 C) 18 D) 20 E) 22

5.

+	a	b	c
a		$2c + 3$	
b			$a + 4$
c	12		

$\Rightarrow b = ?$

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

3.

+	a	b	c
a			23
b	11		
c		18	

$\Rightarrow a = ?$

- A) 3 B) 5 C) 8 D) 13 E) 15

6.

+	a	b	c
a	b		
b		c	
c			$8a^2$

$\Rightarrow a + b + c = ?$

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

7.

+	a	b	c
a		$3b - 12$	
b			13
c	$2b - 3c$		

$$\Rightarrow \frac{a+b}{c} = ?$$

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

8.

+	a	b	c
a		26	
b			32
c	28		

$$\Rightarrow b = ?$$

- A) 6 B) 9 C) 11 D) 15 E) 17

9.

+	a	b	c
a		$\frac{2c}{3} + 17$	
b		$3c$	
c			a

$$\Rightarrow c = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

10.

+	a	b	c
a		18	
b			10
c			$a + 1$

$$\Rightarrow c = ?$$

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

11.

+	a	b	c
a		c	
b			$a + 8$
c			

$$\Rightarrow b = ?$$

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

12.

+	a	b	c
a			
b	15		
c	17	24	

$$\Rightarrow b = ?$$

- A) 7 B) 8 C) 9 D) 10 E) 11

1.

x	a	b	c
a			12
b	18		
c		24	

$$\Rightarrow b + a \cdot c = ?$$

- A) 12 B) 18 C) 21 D) 24 E) 30

2.

x	a	b	c
a			54
b	108		
c		72	

$$\Rightarrow a + b + c = ?$$

- A) 14 B) 19 C) 27 D) 32 E) 36

3.

x	a	b	c
a			96
b	72		
c		48	

$$\Rightarrow a^2 = ?$$

- A) 16 B) 36 C) 49 D) 81 E) 144

4.

x	a	b	c
a	b		
b		c	
c			2^8

$$\Rightarrow a = ?$$

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

5.

x	a	b	c
a	$4b$		
b		b	
c			$16b$

$$\Rightarrow a \cdot b \cdot c = ?$$

- A) 4 B) 6 C) 8 D) 16 E) 20

6.

x	a	b	c
a		c	
b			$5a$
c	$3b$		

$$\Rightarrow a \cdot b \cdot c = ?$$

- A) 4 B) 6 C) 9 D) 12 E) 15

7.

x	a	b	c
a		6c	
b			$\frac{27}{2}a$
c	$\frac{2}{3}b$		

$$\Rightarrow a + b + c = ?$$

- A) 8 B) 10 C) 12 D) 14 E) 16

8.

x	a	b	c
a	2a		
b		8a	
c			9b

$$\Rightarrow a + 2b + c = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

9.

x	a	b	c
a			24
b	28		
c		42	

$$\Rightarrow a + b - c = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

10.

x	a	b	c
a		8c	
b			2a
c			

$$\Rightarrow b = ?$$

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

11.

x	a	b	c
a			8b
b			
c	2c	18a	

$$\Rightarrow a + b + c = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

12.

x	a	b	c
a	3a		
b		6b	
c			c

$$\Rightarrow \frac{b \cdot c}{a} = ?$$

- A) 1 B) 2 C) 3 D) 4 E) 6

1.

x	a	b	c
a		4c	
b		10c + 6	
c		9a	

$$\Rightarrow a + b + c = ?$$

- A) 9 B) 10 C) 11 D) 12 E) 13

2.

x	a	b	c
a		24	
b			32
c	48		

$$\Rightarrow c = ?$$

- A) 3 B) 4 C) 6 D) 8 E) 9

3.

x	a	b	c
a			32
b	6c		
c		96	

$$\Rightarrow a + c = ?$$

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

4.

x	a	b	c
a	2a		
b		18a	
c			$\frac{8b}{3}$

$$\Rightarrow c = ?$$

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

5.

x	a	b	c
a		5b	
b			9c
c	K		

$$a + 2c = 17$$

$$\Rightarrow K = ?$$

- A) 54 B) 45 C) 40 D) 35 E) 30

6.

x	a	b	c
a	b	c	
b			
c			32a

$$\Rightarrow a + b + c = ?$$

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

7.

x	a	b	c
a		9c	
b			4a
c	b		

$$\Rightarrow a \cdot b + c = ?$$

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

8.

x	a	b	c
a		2c	
b			18a
c	48		

$$\Rightarrow b + c - a = ?$$

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

9.

x	a	b	c
a	e		
b		f	
c			e+f

$$a, b, c \in \mathbb{N}^+$$

$$\Rightarrow \min(a + b + c) = ?$$

- A) 10 B) 12 C) 18 D) 24 E) 29

10.

x	a	b	c
a		$\frac{8c}{3}$	
b			6a
c	$\frac{27b}{2}$		

$$\Rightarrow a + b - c = ?$$

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

11.

x	a	b	c
a	$4b + 3c$		
b		$5c + 1$	
c			$3c$

$$\Rightarrow a = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

12.

x	a	b	c
a		12	
b			72
c	24		

$$\Rightarrow \frac{b+c}{a} = ?$$

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

1.

+	a	b	c
a			
b			17
c			

x	a	b	c
a		18	
b			
c	16		

$\Rightarrow b \cdot c = ?$

- A) 48 B) 54 C) 56 D) 64 E) 72

4.

+	a	b	c
a	6		
b			12
c			

x	a	b	c
a		21	
b			
c			k

$\Rightarrow k = ?$

- A) 36 B) 25 C) 16 D) 9 E) 4

2.

+	a	b	c
a			12
b			
c			

x	a	b	c
a		24	
b			
c		48	

$\Rightarrow b = ?$

- A) 3 B) 4 C) 6 D) 8 E) 12

5.

+	a	b	c
a	M		
b		10	13
c			

x	a	b	c
a	T		48
b			
c			

$\Rightarrow M + T = ?$

- A) 36 B) 48 C) 54 D) 60 E) 72

3.

+	a	b	c
a			b
b			
c			

x	a	b	c
a		48	
b			16
c			

$a, b, c > 0 \Rightarrow b = ?$

- A) 8 B) 7 C) 6 D) 4 E) 2

6.

x	a	b	c
a			
b			
c			64

+	a	b	c
a		6	
b			
c			

$\Rightarrow a + b + c = ?$

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

7.

+	a	b	c
a		17	
b			
c			

x	a	b	c
a		72	
b			
c			

$$\Rightarrow a^2 + b^2 = ?$$

- A) 106 B) 125 C) 137 D) 145 E) 169

8.

+	a	b	c
a			
b		b^2	$a.b$
c			

x	a	b	c
a	$3a$		
b			
c			

$$\Rightarrow b = ?$$

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

9.

+	a	b	c
a			
b			8
c			

x	a	b	c
a			
b		$a-11$	
c			$a+13$

$$\Rightarrow c - b = ?$$

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

10.

x	a	b	c
a		24	
b			36
c			

+	a	b	c
a			
b			
c	12		

$$\Rightarrow b = ?$$

- A) 1 B) 5 C) 8 D) 11 E) 14

11.

x	a	b	c
a		8	
b			12
c	6		

+	a	b	c
a		x	
b			y
c	z		

$$\Rightarrow x + y + z = ?$$

- A) 9 B) 12 C) 15 D) 18 E) 21

12.

x	a	b	c
a	$4b$		
b		b	
c			

+	a	b	c
a			r
b	t		
c			$8a$

$$\Rightarrow t + r = ?$$

- A) 7 B) 8 C) 9 D) 10 E) 13

1.

+	a	b	c
a		11	
b			
c	15		

x	a	b	c
a			
b			96
c			

$$\Rightarrow b + c = ?$$

- A) 12 B) 16 C) 20 D) 24 E) 26

4.

+	a	b	c
a		14	
b			26
c	24		

x	d	e	f
d		$b - c$	
e			$a + 3$
f	$c - 5$		

$$\Rightarrow d + f - e = ?$$

- A) 9 B) 10 C) 11 D) 12 E) 13

2.

x	a	b	c
a		20	
b			
c			$3c$

+	a	b	c
a			
b			7
c			

$$\Rightarrow a - b = ?$$

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

5.

+	a	b	c
a			6
b			
c			

x	a	b	c
a		21	
b			33
c			

$$\Rightarrow b = ?$$

- A) 3 B) 4 C) 6 D) 8 E) 9

3.

x	a	b	c
a			K
b	L		
c		M	

+	a	b	c
a		$2c - 7$	
b	5		$4a + 1$
c			

$$\Rightarrow K + L + M = ?$$

- A) 30 B) 34 C) 36 D) 38 E) 40

6.

x	a	b	c
a			24
b		$3b$	
c			

+	a	b	c
a			
b			7
c			

$$\Rightarrow a = ?$$

- A) 2 B) 4 C) 6 D) 8 E) 12

7.

+	a	b	c
a		$3y+2$	
b			$2x-5$
c			$x+y$

+	a	b	c
a		$x+2$	
b			$2y+3$
c			

$\Rightarrow a = ?$

- A) 3 B) 4 C) 5 D) 8 E) 9

8.

+	a	b	c
a		$4c$	
b			$3a$
c			

x	a	b	c
a			$8a$
b			
c			

$\Rightarrow b = ?$

- A) 24 B) 22 C) 20 D) 18 E) 16

9.

x	a	b	c
a		$6c$	
b			48
c	8		

+	a	b	c
a		K	
b			L
c			

$\Rightarrow K + L = ?$

- A) 26 B) 28 C) 30 D) 32 E) 34

10.

+	a	b	c
a			$2a+b$
b	$2c-3a$		
c			

x	a	b	c
a			12
b			
c			

$\Rightarrow b = ?$

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

11.

x	a	b	c
a			36
b		b^3	
c			

+	a	b	c
a			13
b			
c		5	

$\Rightarrow a - c + b = ?$

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

12.

x	a	b	c
a			36
b			
c			

+	a	b	c
a		$\frac{2c}{3}$	
b			
c	$3b$		

$\Rightarrow \sqrt{a+2b+3c} = ?$

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

1.

+	a	b	c
a			5
b			
c		K	

x	a	b	c
a		16	
b			24
c			

$\Rightarrow K = ?$

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

2.

+	a	b	c
a		K	
b			
c	14		

x	a	b	c
a		35	
b			
c		63	

$\Rightarrow K = ?$

- A) 9 B) 12 C) 15 D) 18 E) 24

3.

x	a	b	c
a			
b			21
c			

+	a	b	c
a			3a
b		14	
c			

$\Rightarrow a = ?$

- A)
- $\frac{3}{2}$
- B) 3 C) 4 D)
- $\frac{5}{3}$
- E) 6

4.

x	a	b	c
a		12	
b			8
c	6		

+	a	b	c
a	K		
b		L	
c			M

$\Rightarrow K + L + M = ?$

- A) 14 B) 15 C) 16 D) 17 E) 18

5.

+	a	b	c
a	$3b + 2$		
b			
c			$3a$

x	a	b	c
a		$4c$	
b			
c			

$\Rightarrow a + b - c = ?$

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

6.

+	a	b	c
a			
b			
c	4		

x	a	b	c
a		15	
b			11
c			

$\Rightarrow b = ?$

- A) 5 B)
- $\frac{11}{2}$
- C) 6 D)
- $\frac{13}{2}$
- E) 7

7.

+	a	b	c
a			18
b			
c			

 $\Rightarrow b = ?$

- A) 6 B) 12 C) 18 D) 24 E) 36

x	a	b	c
a	b		2b
b			
c			

10.

x	a	b	c
a		2c	
b			8a
c			

 $\Rightarrow a \cdot b = ?$

- A) 10 B) 12 C) 20 D) 24 E) 30

+	a	b	c
a		c-1	
b			
c			

8.

+	a	b	c
a		12	
b			14
c	16		

 $\Rightarrow L = ?$

- A) 9 B) 16 C) 20 D) 25 E) 36

x	a	b	c
a			
b		L	
c			

11.

+	a	b	c
a			15
b			
c			

 $\Rightarrow b = ?$

- A) 12 B)
- $\frac{24}{5}$
- C) 8 D)
- $\frac{12}{5}$
- E) 6

x	a	b	c
a		48	
b			24
c			

9.

x	a	b	c
a			
b			4a
c	9b		

 $\Rightarrow a = ?$

- A) 9 B) 12 C) 15 D) 18 E) 27

+	a	b	c
a		$\frac{15c}{2}$	
b			
c			

12.

+	a	b	c
a		2c+4	
b			
c	2b+7		

 $\Rightarrow K = ?$

- A) 9 B) 18 C) 27 D) 36 E) 45

x	a	b	c
a			
b			12
c	K		

1.

+	a	b	c
a			
b			
c	15		

x	a	b	c
a		21	
b			84
c			

$$\Rightarrow b + c = ?$$

- A) 15 B) 16 C) 17 D) 18 E) 19

2.

+	a	b	c
a	6b		
b			10
c			

x	a	b	c
a			9b
b			
c			

$$\Rightarrow a = ?$$

- A) 15 B) 18 C) 21 D) 24 E) 27

3.

+	a	b	c
a		6c	
b			a+4
c			

x	a	b	c
a		5b	
b			
c			

$$\Rightarrow b \cdot c = ?$$

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

4.

x	a	b	c
a			
b			32
c			

+	a ²	b ²	c ²
a ²	50		
b ²			80
c ²			

$$\Rightarrow a + b + c = ?$$

- A) 9 B) 11 C) 13 D) 15 E) 17

5.

x	a	b	c
a	a		
b			27
c			

+	a ³	b ³	c ³
a		28	
b			
c			

$$\Rightarrow c = ?$$

- A) 3 B) 5 C) 7 D) 9 E) 11

6.

x	a	b	c
a		13	
b			
c	7		

+	a	b	d
a			7
c			
d	7		

$$\Rightarrow c + d = ?$$

- A) 11 B) 13 C) 15 D) 17 E) 29

7.

x	a	b	c
a	K		
b		L	
c			

+	a	b	c
a		8	
b			13
c	11		

$$\Rightarrow K + L = ?$$

- A) 9 B) 16 C) 25 D) 34 E) 64

8.

x	a	b	c
a			
b	30		
c			

+	a	b	c
a			
b	11		
c			

$$\Rightarrow a^2 + b^2 = ?$$

- A) 25 B) 36 C) 49 D) 57 E) 61

9.

x	a	b	c
a			4b
b		c	
c			

+	a	b	c
a			
b		8	
c			

$$\Rightarrow a = ?$$

- A) 1 B) 3 C) 5 D) 7 E) 9

10.

+	a	b	c
a		11	
b			
c			

x	a	b	c
a		28	
b			
c			

$$\Rightarrow |a - b| = ?$$

- A) 3 B) 5 C) 7 D) 9 E) 11

11.

x	a	b	c
a			
b		3b	
c			

+	a	b	c
a		7	
b			2a
c			

$$\Rightarrow c = ?$$

- A) 3 B) 5 C) 7 D) 9 E) 11

12.

+	a ²	b ²	c ²
a ²		25	
b ²			
c ²			

x	a	b	d
a		12	
c			
d			

$$\Rightarrow (a + b)^2 = ?$$

- A) 25 B) 30 C) 36 D) 40 E) 49

1.

+	●	■	▲
●		8	
■			13
▲	11		

$$\Rightarrow \bullet = ?$$

- A) 2 B) 3 C) 4 D) 8 E) 9

4.

+	□	▣	■
□		7▣	
▣			18
■	3▣		

$$\Rightarrow \square = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

2.

+	●	★	▼
●		11	
★			7
▼			

$$\bullet - 2\star = 2$$

$$\Rightarrow \star = ?$$

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

5.

+	○	●	◎
○			14
●	◎		
◎		19	

$$\Rightarrow \odot = ?$$

- A) 7 B) 8 C) 9 D) 10 E) 11

3.

+	△	▲	☆
△		10	
▲			9
☆			

$$\blacktriangle - \star = 3$$

$$\Rightarrow \triangle = ?$$

- A) 3 B) 4 C) 5 D) 6

6.

+	☹	☺	☺
☹		14	
☺			
☺	4☹	3☹	

$$\Rightarrow \odot = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

7.

+	●	▼	◆
●		15	
▼			2●
◆	9		

$$\Rightarrow \nabla = ?$$

- A) 6 B) 9 C) 10 D) 12 E) 15

8.

+	▲	■	◆
▲	18		
■		10	
◆			12

$$\Rightarrow \blacktriangle \cdot \blacksquare \cdot \blacklozenge = ?$$

- A) 45 B) 110 C) 135 D) 210 E) 270

9.

+	☺	☹	☾
☺		7	
☹			12
☾	9		

$$\Rightarrow \smile + \frown + \lrcorner = ?$$

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

10.

+	◆	◆	◆
◆		3	
◆			9
◆	8		

$$\Rightarrow \blacklozenge + \blacklozenge + \blacklozenge = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

11.

+	◆	⊙	□
◆	8		3⊙
⊙			
□		16	

$$\Rightarrow \square = ?$$

- A) 4 B) 5 C) 8 D) 11 E) 13

12.

+	α	β	φ
α		5φ	
β			2α
φ	$12 - \beta$		

$$\Rightarrow \beta = ?$$

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

1.

x	▲	●	◆
▲			24
●	12		
◆		18	

$$\Rightarrow \triangle + \bullet = ?$$

- A) 6 B) 7 C) 8 D) 9 E) 10

2.

x	□	△	○
□		32	24
△			48
○			

$$\Rightarrow \triangle + \square + \circ = ?$$

- A) 16 B) 17 C) 18 D) 19 E) 20

3.

x	☺	☹	⊗
☺	36		
☹	4⊗		96
⊗			

$$\Rightarrow \otimes - \ominus = ?$$

- A) 1 B) 2 C) 3 D) 4

E) 5

4.

x	☆	⊙	■
☆	2☆	9	
⊙		8☆	
■			9⊙

$$\Rightarrow \star + \odot + \blacksquare = ?$$

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

5.

x	♣	♠	♦
♣	♠		
♠		♦	
♦	32		

$$\Rightarrow \frac{\diamond}{\clubsuit} + \spadesuit = ? = ?$$

- A) 8 B) 10 C) 12 D) 14 E) 17

6.

x	◆	☆	⊙
◆		21	
☆			56
⊙	24		

$$\Rightarrow \star = ?$$

- A) 3 B) 4 C) 7 D) 8 E) 9

7.

x	●	■	▲
●		▲	
■			4●
▲	9■		

$$\Rightarrow \bullet \cdot \blacksquare \cdot \blacktriangle = ?$$

- A) 6 B) 12 C) 18 D) 24 E) 36

8.

x	★	♣	♠
★	♠ ² · ♣ ²		
♣		$\frac{9}{2}$ ♠	
♠			2♠

$$\Rightarrow \star = ?$$

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

9.

x	◆	☆	○
◆		8○	
☆			2◆
○			

$$\Rightarrow \star = ?$$

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

10.

x	♣	♥	●
♣		28	
♥			
●	24		36

$$\Rightarrow \heartsuit = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

11.

x	○	■	◆
○		24	
■			54
◆	36		

$$\Rightarrow \circ + \blacksquare - \blacklozenge = ?$$

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

12.

x	♥	▲	★
♥		★	
▲			4♥
★			

$$\blacktriangle + \heartsuit = 12$$

$$\Rightarrow \star = ?$$

- A) 5 B) 12 C) 15 D) 18 E) 20

1.

x	a	b	c
a		$\frac{4c}{3}$	
b			$\frac{3a}{2}$
c	$\frac{5b}{12}$		

$\Rightarrow a \cdot b \cdot c = ?$

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

2.

+	a	b	c
a		3ab	
b			2bc
c	7ac		

$\Rightarrow b = ?$

- A) -2 B) -1 C) 1 D) 2 E) 3

3.

x	a	b	c
a		3c	
b			12a
c	32		

$\Rightarrow a + b + c = ?$

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

4.

x	a	b	c
a			20b
b	18		
c		5a	

$\Rightarrow a + b + c = ?$

- A) 17 B) 18 C) 19 D) 20 E) 21

5.

+	$\frac{1}{a}$	$\frac{1}{b}$	$\frac{1}{c}$
$\frac{1}{a}$		5	
$\frac{1}{b}$			7
$\frac{1}{c}$	6		

$\Rightarrow a = ?$

- A) $\frac{1}{5}$ B) $\frac{1}{4}$ C) $\frac{1}{3}$ D) $\frac{1}{2}$ E) 1

6.

x	a	b	c
a			39b
b	65		75
c			

$\Rightarrow a + b + c = ?$

- A) 31 B) 32 C) 33 D) 34 E) 35

7.

x	a	b	c
a		$\frac{9}{b}$	
b			$\frac{4}{c}$
c	$\frac{6}{a}$		

$$\Rightarrow a \cdot b \cdot c = ?$$

- A) 4 B) 6 C) 8 D) 12 E) 18

8.

x	a	b	c
a		$\frac{a+b}{3}$	
b			$\frac{b+c}{5}$
c	$\frac{a+c}{4}$		

$$\Rightarrow \frac{1}{a} + \frac{1}{b} + \frac{1}{c} = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

9.

+	y	$\frac{1}{y}$
x		2
$\frac{1}{x}$	$\frac{5}{3}$	

$$\Rightarrow \frac{x}{y} = ?$$

- A) $\frac{11}{3}$ B) $\frac{3}{10}$ C) $\frac{5}{6}$ D) $\frac{6}{5}$ E) $\frac{10}{3}$

10.

+	-y	z	-t
x	2		
y		-5	
z			13

$$\Rightarrow 2x - y + z = ?$$

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

11.

+	$\frac{1}{a}$	$\frac{1}{b}$	$\frac{1}{c}$
$\frac{1}{a}$		13	
$\frac{1}{b}$			8
$\frac{1}{c}$	7		

$$\Rightarrow a = ?$$

- A) $\frac{1}{4}$ B) $\frac{1}{5}$ C) $\frac{1}{6}$ D) $\frac{1}{7}$ E) $\frac{1}{8}$

12.

x	a	b	c
a		2c	
b			$\frac{1}{4}a$
c	$\frac{2}{3}b$		

$$\Rightarrow \frac{1}{a \cdot b \cdot c} = ?$$

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

1.

x	K	L	M
K			$\frac{10L}{9}$
L	$\frac{2M}{5}$		$\frac{3K}{4}$
M			

$$\Rightarrow K \cdot L \cdot M = ?$$

- A) $\frac{2}{5}$ B) $\frac{3}{5}$ C) $\frac{5}{3}$ D) $\frac{1}{3}$ E) $\frac{2}{3}$

2.

+	d	e	f
d		2de	
e			5ef
f	3df		

$$\Rightarrow e = ?$$

- A) $\frac{1}{6}$ B) $\frac{1}{5}$ C) $\frac{1}{4}$ D) $\frac{1}{3}$ E) $\frac{1}{2}$

3.

x	a	b	c
a			
b	2c		18a
c	8b		

$$\Rightarrow a \cdot b \cdot c = ?$$

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

4.

x	a	b	c
a		24	
b			3a
c	8		

$$\Rightarrow a + b + c = ?$$

- A) 8 B) 10 C) 12 D) 14 E) 16

5.

+	$\frac{1}{a}$	$\frac{1}{b}$	$\frac{1}{c}$
$\frac{1}{a}$			$\frac{2}{3}$
$\frac{1}{b}$	$\frac{1}{3}$		
$\frac{1}{c}$		$\frac{2}{5}$	

$$\Rightarrow c = ?$$

- A) $\frac{11}{15}$ B) $\frac{11}{30}$ C) $\frac{22}{15}$ D) $\frac{15}{22}$ E) $\frac{30}{11}$

6.

x	a	b	c
a		$\frac{4}{3}c$	
b			$\frac{9}{8}a$
c	$\frac{2}{3}b$		

$$\Rightarrow a \cdot b \cdot c = ?$$

- A) 1 B) $\frac{1}{2}$ C) $\frac{2}{3}$ D) $\frac{4}{3}$ E) 2

7.

+	K	L	M
K		4M	
L			3K
M			

$$2K - M = 12$$

$$\Rightarrow L = ?$$

- A) 8 B) 10 C) 18 D) 22 E) 24

8.

+	a	b	c
a		x	
b			z
c	y		

x	a	b	c
a		K	
b			M
c	L		

$$\frac{K}{X} = \frac{1}{7}, \quad \frac{L}{Y} = \frac{1}{8}, \quad \frac{M}{Z} = \frac{1}{13}$$

$$\Rightarrow b = ?$$

- A) $\frac{1}{6}$ B) $\frac{1}{5}$ C) $\frac{1}{4}$ D) $\frac{1}{3}$ E) $\frac{1}{2}$

9.

x	●	◇	♠
●	3●		
◇			24
♠			

+	●	◇	♠
●			
◇		4●	
♠			K

$$\Rightarrow K = ?$$

- A) 8 B) 16 C) 25 D) 36 E) 49

10.

+	b	$\frac{1}{b}$
a	14	
$\frac{1}{a}$		$\frac{2}{3}$

$$\Rightarrow a \cdot b = ?$$

- A) 7 B) 21 C) 28 D) 35 E) 42

11.

x	a	b	c
a		8c	
b			$\frac{27}{4}a$
c	$\frac{2}{3}b$		

$$\Rightarrow a \cdot b \cdot c = ?$$

- A) $\frac{9}{2}$ B) $\frac{9}{4}$ C) 18 D) 36 E) 54

12.

x	a	b	c
a		12	
b			18
c	24		

$$\Rightarrow a + b + c = ?$$

- A) 17 B) 16 C) 15 D) 14 E) 13

1.

+	a	b	c
a		9ab	
b			5bc
c	8ac		

$$\Rightarrow \frac{1}{c} = ?$$

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

2.

x	a	b	c
a		6c	
b			27
c	6		

$$\Rightarrow c^2 + a \cdot b = ?$$

- A) 18 B) 27 C) 36 D) 45 E) 54

3.

+	$\frac{1}{a}$	$\frac{1}{b}$	$\frac{1}{c}$
$\frac{1}{a}$	$\frac{4}{3}$		1
$\frac{1}{b}$			
$\frac{1}{c}$		2	

$$\Rightarrow b = ?$$

- A) $\frac{1}{3}$ B) $\frac{3}{5}$ C) $\frac{2}{3}$ D) $\frac{5}{3}$ E) 3

4.

+	a	$\frac{1}{b}$	c
a		4	
$\frac{1}{b}$			
c	K		

x	a	b	c
a		7	
b			6
c			

$$\Rightarrow K = ?$$

- A) 10 B) $\frac{11}{2}$ C) $\frac{23}{7}$ D) $\frac{13}{2}$ E) $\frac{22}{7}$

5.

x	a	b	c
a		3c	
b			98
c	12b		

$$\Rightarrow b + c = ?$$

- A) 17 B) 18 C) 19 D) 20 E) 21

6.

$\sqrt{x}$	a	b	c
a		$2\sqrt{2}$	
b			$2\sqrt{3}$
c	$2\sqrt{6}$		

$$\Rightarrow a + b + c = ?$$

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

7.

+	a	b	c
a		25	
b			20
c	19		

$\Rightarrow c = ?$

- A) 3 B) 7 C) 11 D) 14 E) 16

8.

x	a	b	c
a	16		12
b		$a^2 + c^2$	
c			

$\Rightarrow b = ?$

- A) 8 B) 7 C) 6 D) 5 E) 4

9.

x	a	b	c
a	K		
b	36		
c		48	16

$\Rightarrow K = ?$

- A) 81 B) 64 C) 36 D) 16 E) 9

10.

x	a	b
a		
b	42	

+	a^2	b^2
a^2		85
b^2		

$\Rightarrow a + b = ?$

- A) 9 B) 11 C) 13 D) 15 E) 17

11.

x	a	b	c
a		12	
b			24
c	18		

+	a	b	d
a			8
c			
e			12

$\Rightarrow a + b + c + d + e = ?$

- A) 8 B) 12 C) 19 D) 25 E) 37

12.

x	b · c
a	24
b	16
c	32

$\Rightarrow a + b = ?$

- A) 3 B) 5 C) 7 D) 9 E) 11

1.

	x	y	z
4	8	12	16
5	10	?	25
7	14	42	49

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

4.

	★	■	♣
24	6	b	36
35	8	15	c
44	a	16	64

$$\Rightarrow c - (a + b) = ?$$

- A) 52 B) 48 C) 44 D) 40 E) 36

2.

	a	b	c
7	15	50	z
3	7	y	3
9	x	82	15

$$\Rightarrow x + y + z = ?$$

- A) 36 B) 38 C) 40 D) 42 E) 44

5.

	7	8	9
a	10	x	12
b	y	63	80
c	16	18	z

$$\Rightarrow x + y + z = ?$$

- A) 79 B) 78 C) 77 D) 76 E) 75

3.

	△	□	○
8	a	2	32
16	48	4	c
12	36	b	72

$$\Rightarrow a + b + c = ?$$

- A) 92 B) 100 C) 120 D) 135 E) 155

6.

	3	5	9
□	5	9	c
★	a	16	28
△	12	b	90

$$\Rightarrow a + b + c = ?$$

- A) 56 B) 57 C) 58 D) 59 E) 60

7.

	9	16	36
x	★	4	6
y	5	■	11
z	1	2	♣

$$\Rightarrow \star + \blacksquare + \clubsuit = ?$$

- A) 17 B) 16 C) 15 D) 14 E) 13

8.

	12	16	28
K	7	9	a
L	25	b	57
M	c	3	6

$$\Rightarrow a + b + c = ?$$

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

9.

	32	41	73
A	1	3	z
B	5	x	10
C	y	4	21

$$\Rightarrow x + y + z = ?$$

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

10.

	52	61	75
K	9	25	a
L	b	7	12
M	10	c	35

$$\Rightarrow a + b - c = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

11.

	2	3	5
★	5	10	a
▲	b	8	24
♣	5	c	11

$$\Rightarrow a + b + c = ?$$

- A) 37 B) 36 C) 35 D) 34 E) 33

12.

	x	y	z
14	B	10	C
21	4	6	9
26	24	A	24

$$\Rightarrow A - B + C = ?$$

- A) 23 B) 24 C) 25 D) 26 E) 27

1.

	♠	▲	■
27	41	15	Z
33	47	Y	41
42	X	30	50

$$\Rightarrow X + Z - Y = ?$$

- A) 68 B) 69 C) 70 D) 71 E) 72

2.

	☎	☎	☎
64	20	4	C
72	A	10	14
51	12	B	5

$$\Rightarrow B + C - A = ?$$

- A) 13 B) 14 C) 15 D) 16 E) 17

3.

	7	9	4
☎	16	K	10
❖	12	16	L
☎	M	26	11

$$\Rightarrow K + L - M = ?$$

- A) 3 B) 4 C) 5 D) 6 E) 7

4.

	☎	♠	★
96	9	45	K
82	L	60	10
72	25	M	9

$$\Rightarrow K + L - M = ?$$

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

5.

	♠	▲	★
64	5	8	M
86	7	L	2
97	K	21	2

$$\Rightarrow K + L - M = ?$$

- A) 20 B) 22 C) 24 D) 26 E) 28

6.

	■	☎	☎
32	K	13	5
52	9	29	L
41	9	M	15

$$\Rightarrow K + L + M = ?$$

- A) 27 B) 29 C) 35 D) 39 E) 44

7.

	■	■	■
72	9	14	M
84	12	L	4
43	K	12	1

$$\Rightarrow K + L + M = ?$$

- A) 44 B) 43 C) 42 D) 41 E) 40

8.

	29	46	37
☒	2	x	1
▲	y	8	2
■	9	6	z

$$\Rightarrow x \cdot y \cdot z = ?$$

- A) 15 B) 24 C) 36 D) 60 E) 72

9.

	12	9	15
23	15	45	
16		?	42
35	24		

- A) 30 B) 36 C) 42 D) 56 E) 63

10.

	7	9	12
6	?		9
7	13		12
9	9	9	

- A) 4 B) 5 C) 6 D) 7 E) 8

11.

	12	15	18
24	10		16
36		23	
48	34		?

- A) 28 B) 35 C) 40 D) 45 E) 52

12.

	6	8	10
3	9		11
4		12	
5	?		15

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

1.

	17	21	32
13	32		
22		12	20
35	64	24	?

- A) 28 B) 32 C) 36 D) 40 E) 42

2.

	3	7	6
16	12		24
9		21	
25	?		30

- A) 9 B) 10 C) 12 D) 15 E) 18

3.

	2	5	3
18	6		9
50	10	25	?
32	8		

- A) 30 B) 25 C) 15 D) 12

E) 9

4.

	5	9	1
10	10		6
18		?	
12	11		7

- A) 16 B) 17 C) 18 D) 19 E) 20

5.

	8	9	4
4	16	18	
3	12	-	
6		27	?

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

6.

	27	23	19
26	1	9	
18		25	
16	121		?

- A) 1 B) 4 C) 9 D) 16 E) 25

7.

	K	L	M
15	4	b	6
24	2	4	c
38	a	25	11

$$\Rightarrow a + b + c = ?$$

- A) 24 B) 25 C) 26 D) 27 E) 28

8.

	5	7	10
☺	21	43	K
☹	L	55	109
☹	26	M	101

$$\Rightarrow K - (L + M) = ?$$

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

9.

	▼	▼▼	▼▼▼
2	3	7	a
3	8	b	80
4	c	63	255

$$\Rightarrow a + b + c = ?$$

- A) 52 B) 53 C) 54 D) 55 E) 56

10.

	4	7	9
1	5	8	10
3	15	?	30

- A) 18 B) 21 C) 24 D) 27 E) 29

11.

	23	38	43
3	15	33	?
5	25	?	35

- A) 24, 55 B) 21, 55 C) 24, 50
D) 21, 51 E) 18, 50

12.

	19	21	35
6	55	?	71
8	83	?	99

- A) 56, 85 B) 57, 86 C) 55, 83
D) 56, 87 E) 57, 85

1.

	12	36	48
2	5	x	23
3	3	11	y

 $\Rightarrow x, y = ?$

- A) 16, 15 B) 18, 17 C) 17, 17
D) 17, 15 E) 18, 15

2.

	1	5	8
7	50	54	L
4	K	21	24

 $\Rightarrow K + L = ?$

- A) 74 B) 73 C) 72 D) 71 E) 70

3.

	38	45	51
3	14	12	A
5	16	B	11

 $\Rightarrow B - A = ?$

- A) 6 B) 5 C) 4 D) 3

E) 2

4.

	2	3	4
7	1	?	57
5	3	22	?

- A) 19, 59 B) 19, 60 C) 20, 59
D) 20, 60 E) 18, 61

5.

	19	35	47
9	14	22	M
23	T	29	35

 $\Rightarrow M + T = ?$

- A) 50 B) 49 C) 48 D) 47 E) 46

6.

	17	26	32
24	K	20	12
35	22	R	21

 $\Rightarrow K + R = ?$

- A) 42 B) 41 C) 40 D) 39 E) 38

7.

	5	8
12	34	40
16	K	L
19	48	54

$$\Rightarrow K + L = ?$$

- A) 82 B) 84 C) 86 D) 88 E) 90

8.

	3	8
7	5	-
12	?	10
19	?	-

- A) -, 10 B) -, 9 C) 7, -
D) -, 11 E) 8, -

9.

	3	4
5	16	9
6	?	20
7	40	33

- A) 28 B) 27 C) 26 D) 25 E) 24

10.

	6	7
4	28	15
5	?	76
6	180	167

- A) 73 B) 79 C) 83 D) 89 E) 93

11.

	5	8
4	21	24
5	30	?
6	41	44

- A) 31 B) 32 C) 33 D) 34 E) 35

12.

	10	4
7	19	16
9	23	20
13	K	L

$$\Rightarrow K + L = ?$$

- A) 59 B) 58 C) 57 D) 56 E) 55

1.

♠	2	3	6
4	8	10	16
5	9	11	17
7	11	?	19

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

2.

■	4	5	3
7	9	18	2
2	14	?	7
9	7	16	0

- A) 21 B) 22 C) 23 D) 24 E) 25

3.

⊕	2	4	6
4	5	13	21
8	13	29	45
9	?	33	51

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

4.

★	3	4	7
7	1	3	L
6	K	4	2
8	4	2	1

$$\Rightarrow K + L = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

5.

▲	4	5	6
1	17	26	37
2	20	?	40
3	25	34	45

- A) 28 B) 29 C) 30 D) 31 E) 32

6.

★	7	1	6
2	1	7	2
3	20	26	21
4	?	63	58

- A) 54 B) 55 C) 56 D) 57 E) 58

7.

■	2	5	4
4	16	40	32
8	?	80	64
3	12	30	24

- A) 16 B) 18 C) 24 D) 32 E) 40

8.

☉	9	17	15
4	4	3	10
5	5	4	?
8	8	7	5

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

9.

✂	3	5	12
7	3	8	?
6	-	3	-
10	3	5	3

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

10.

☼	1	4	3
14	6	3	4
18	8	5	6
16	?	4	5

- A) 6 B) 7 C) 8 D) 9 E) 10

11.

☾	2	3	4
12	5	3	2
48	23	15	?
72	35	23	17

- A) 9 B) 10 C) 11 D) 12 E) 13

12.

☒	12	17	24
24	6	-	-
25	-	-	?
19	-	6	-

- A) 3 B) 5 C) 7 D) 9 E) 11

1.

♠	18	15	11
21	27	18	
32		?	10
16	63	42	

- A) 25 B) 30 C) 35 D) 40 E) 45

4.

☺	7	4	3
5	8		6
8		5	6
4	?	7	

- A) 6 B) 7 C) 8 D) 9 E) 10

2.

C	1	4	9
9	7	10	
25	11		19
16		?	17

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

5.

❖	7	11	18
16	46		
19	?		74
23	60	68	

- A) 46 B) 48 C) 50 D) 52 E) 54

3.

☐	3	5	12
7	18	30	
10			108
4	9	15	?

- A) 24 B) 36 C) 48 D) 54 E) 60

6.

☼	22	17	11
34	30		20
42	24	?	
51			12

- A) 45 B) 42 C) 36 D) 28 E) 20

7.

×	17	41	35
7		24	
11	14		
19	18		?

- A) 28 B) 27 C) 26 D) 25 E) 24

8.

☎	16	35	41
8	8	-	-
13	-	?	18
17	11	-	-

- A) 13 B) 14 C) 15 D) 16 E) 17

9.

★	2	6	8
4	14	?	
5		28	
7			38

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

10.

¢	14	17	19
21	-	19	A
24	19	-	-
33	-	25	B

$$\Rightarrow B - A = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8

11.

♠	4	6	7
11	-	-	4
18	22	24	-
21	-	-	?

- A) 3 B) 14 C) 19 D) 24 E) 28

12.

☒	12	15	16
5	13	-	-
8	-	17	-
12	-	-	?

- A) 17 B) 18 C) 19 D) 20 E) 21

1.

	⊙	*	□
7	3	13	C
11	5	B	34
19	A	37	58

$$\Rightarrow A + B + C = ?$$

- A) 51 B) 52 C) 53 D) 54 E) 55

2.

	*	←	◇
6	9	19	y
10	x	31	4
2	3	7	0

$$\Rightarrow x + y = ?$$

- A) 20 B) 19 C) 18 D) 17 E) 16

3.

	7	10	14
☐	28	70	A
☐	$\frac{49}{2}$	C	98
☐	B	21	29

$$\Rightarrow A - B - C = ?$$

- A) 88 B) 89 C) 90 D) 91 E) 92

4.

*	K	L	M
4	15	B	24
8	A	162	80
5	24	72	C

$$\Rightarrow A + B - C = ?$$

- A) 76 B) 78 C) 80 D) 82 E) 84

5.

◇	10	19	25
D	3	X	8
E	Z	10	7
F	19	37	Y

$$\Rightarrow X + Y + Z = ?$$

- A) 55 B) 56 C) 57 D) 58 E) 59

6.

■	3	7	13
X	11	C	41
Y	N	15	27
Z	1	3	R

$$\Rightarrow \frac{C+N}{R} = ?$$

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

7.

	a	b	c
72	6	9	K
50	X	5	5
98	7	T	1

$$\Rightarrow X + K + T = ?$$

- A) 19 B) 20 C) 21 D) 22 E) 23

8.

			
6	18	4	M
10	50	L	15
2	K	2	3

$$\Rightarrow K + L + M = ?$$

- A) 15 B) 16 C) 17 D) 18 E) 19

9.

④	2	3	5
	A	26	124
	7	12	B
	9	C	36

$$\Rightarrow C + \frac{B}{A} = ?$$

- A) 36 B) 30 C) 28 D) 24 E) 20

10.

	X	Y	Z
30	A	11	3
36	4	B	9
42	7	15	C

$$\Rightarrow A + B + C = ?$$

- A) 25 B) 26 C) 27 D) 28 E) 29

11.

◆	22	28	49
❶	x	4	6
❷	12	y	108
❸	2	8	z

$$\Rightarrow x + y + z = ?$$

- A) 66 B) 67 C) 68 D) 69 E) 70

12.

■	17	24	39
✱	4	A	6
📺	B	18	36
📺	64	36	C

$$\Rightarrow \frac{C}{A \cdot B} = ?$$

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

1.

			Sonuç (Result)
2	5	6	16
3	8	1	25
6	7	7	49
4	9	2	?

A) 36 B) 38 C) 45 D) 56 E) 64

2.

			Sonuç (Result)
7	4	1	24
6	3	8	34
5	2	4	22
9	3	2	?

A) 31 B) 30 C) 29 D) 28 E) 27

3.

			Sonuç (Result)
6	2	7	20
8	1	5	13
4	9	2	22
3	8	4	?

A) 33 B) 34 C) 35 D) 36 E) 37

4.

			Sonuç (Result)
6	7	3	10
8	4	5	7
10	8	4	14
12	7	8	?

A) 7 B) 8 C) 9 D) 10 E) 11

5.

			Sonuç (Result)
2	8	9	17
1	9	6	14
4	8	4	22
2	5	6	?

A) 14 B) 15 C) 16 D) 17 E) 18

6.

			Sonuç (Result)
2	2	9	6
8	9	2	12
2	4	8	8
8	6	12	?

A) 6 B) 8 C) 9 D) 12 E) 24

7.

7	6	11	8
5	8	9	10
3	2	4	2
4	7	5	?

Sonuç
(Result)

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

8.

11	16	2	5
2	10	3	7
3	23	4	13
4	7	3	?

Sonuç
(Result)

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

9.

1	8	6	3
7	2	8	9
3	6	4	9
3	2	?	4

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

10.

14	2	4	3
15	5	2	1
24	3	2	6
36	?	8	4

Sonuç
(Result)

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

11.

16	24	35	10
23	18	16	25
13	6	17	?
3	7	3	5

Sonuç
(Result)

- A) 6 B) 7 C) 8 D) 9 E) 10

12.

10	7	14	2
9	15	5	6
7	6	8	1
?	13	9	4

Sonuç
(Result)

- A) 6 B) 8 C) 10 D) 11 E) 12

1.

8	?	7	5	Sonuç (Result)
2	3	4	3	
4	6	2	5	
3	4	6	7	

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

2.

4	2	1	7	Sonuç (Result)
8	2	5	11	
2	7	5	9	
6	3	4	?	

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

3.

1	5	2	3	
2	1	1	4	
5	2	6	3	
5	8	6	?	Sonuç (Result)

A) 7 B) 6 C) 5 D) 4 E) 3

4.

2	3	28	5	Sonuç (Result)
3	9	43	4	
1	6	23	7	
2	6	?	4	

A) 27 B) 28 C) 29 D) 30 E) 31

5.

7	4	5	29	Sonuç (Result)
5	2	3	?	
6	4	9	0	
3	2	1	7	

A) 16 B) 17 C) 18 D) 19 E) 20

6.

4	7	6	42	Sonuç (Result)
12	2	5	30	
6	9	2	27	
1	8	3	?	

A) 6 B) 8 C) 12 D) 16 E) 24

7. Sonuç
(Result)

?	5	6	4
20	9	16	4
16	3	5	7
13	2	13	13

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

8. Sonuç
(Result)

8	7	8	9
14	6	12	24
?	7	15	14
11	20	3	10

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

9.

13	9	35	13
17	7	21	24
42	16	8	10
9	5	?	11

A) 7 B) 8 C) 9 D) 10 E) 11

10.

13	8	24	12
9	19	6	24
6	?	12	18
16	26	18	18

Sonuç
(Result)

A) 1 B) 4 C) 7 D) 10 E) 14

11.

3	4	7	9
4	8	?	2
5	2	1	3
37	36	29	27

Sonuç
(Result)

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

12.

3	4	5	2
9	2	13	?
7	6	8	9
12	22	27	13

Sonuç
(Result)

A) 12 B) 9 C) 7 D) 5 E) 2

1.

Sonuç
(Result)

2	3	12	11
5	1	29	22
4	2	?	19
3	3	16	17

A) 21 B) 22 C) 23 D) 24 E) 25

2.

Sonuç
(Result)

1	1	4	?
2	3	4	29
2	0	5	29
4	2	1	21

A) 8 B) 12 C) 16 D) 18 E) 24

3.

Sonuç
(Result)

7	27	9	13
4	1	12	3
8	36	16	12
9	?	9	17

A) 36 B) 42 C) 44 D) 49 E) 55

4.

Sonuç
(Result)

6	4	8	12
2	?	9	3
12	9	3	4
4	12	15	5

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

5.

7	4	9	6
8	7	2	8
5	2	3	?
31	24	9	12

Sonuç
(Result)

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

6.

7	11	21	9
9	6	4	14
8	10	11	?
8	9	12	11

Sonuç
(Result)

A) 10 B) 9 C) 8 D) 7 E) 6

7.

24	45	40	19
3	7	12	1
4	2	3	7
12	31	?	12

Sonuç
(Result)

- A) 3 B) 4 C) 5 D) 6 E) 7

8.

7	11	9	6
5	9	11	4
9	12	15	7
38	51	?	26

Sonuç
(Result)

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

9.

5	2	3	27
11	4	2	13
34	3	5	19
19	9	4	?

Sonuç
(Result)

- A) 26 B) 27 C) 28 D) 29 E) 30

10.

8	17	3	7
12	20	16	12
42	2	20	16
24	15	?	14

Sonuç
(Result)

- A) 15 B) 16 C) 17 D) 18 E) 19

11.

7	1	2	37
8	4	4	20
11	9	1	30
6	?	5	11

Sonuç
(Result)

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

12.

2	7	8	9
4	5	9	?
7	1	3	20
5	8	3	7

Sonuç
(Result)

- A) 17 B) 20 C) 25 D) 28 E) 31

1.

7	10	3	9
8	12	4	5
2	9	6	12
14	?	7	2

A) 4 B) 5 C) 6 D) 7 E) 8

4.

4	5	2	18
5	3	6	9
7	2	8	6
3	7	4	?

A) 15 B) 16 C) 17 D) 18 E) 19

2.

3	6	9	4
1	5	5	3
5	6	7	8
4	2	7	?

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

5.

9	2	6	5
4	9	7	6
1	8	3	6
3	5	1	?

A) 4 B) 5 C) 6 D) 7 E) 8

3.

5	1	3	2
4	8	2	6
7	8	3	5
?	7	8	2

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

E) 9

6.

7	4	11	8
5	1	10	6
8	2	13	7
9	4	14	?

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

7.

5	3	5	7
4	1	2	3
6	2	4	4
8	?	6	2

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

8.

6	12	33	45
7	14	46	60
8	16	61	78
9	18	A	B

$$\Rightarrow A + B = ?$$

- A) 170 B) 171 C) 172 D) 173 E) 174

9.

7	3	1	6
8	1	4	9
7	2	2	5
9	?	3	6

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

10.

24	6	1	2
64	4	1	6
9	64	2	4
54	?	1	8

- A) 3 B) 4 C) 6 D) 9 E) 12

11.

4	7	13	25
6	11	21	41
2	3	5	9
7	13	A	B

$$\Rightarrow B - A = ?$$

- A) 25 B) 24 C) 23 D) 22 E) 21

12.

3	4	8	1
5	2	2	5
2	5	3	2
7	2	4	?

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

1.

2	7	1	5
3	8	2	5
4	7	2	9
3	9	2	?

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

2.

4	2	6	3
11	5	17	8
32	14	50	23
95	41	149	?

- A) 69 B) 68 C) 67 D) 66 E) 65

3.

4	5	3	6
7	4	10	1
12	8	16	4
13	A	17	B

$$\Rightarrow A \cdot B = ?$$

- A) 63 B) 52 C) 45 D) 40 E) 36

4.

5	4	41	9
7	3	58	40
8	5	89	39
6	2	A	B

$$\Rightarrow \frac{A}{B} = ?$$

- A) $\frac{6}{5}$ B) $\frac{5}{2}$ C) $\frac{3}{4}$ D) $\frac{3}{2}$ E) $\frac{5}{4}$

5.

24	20	36
47	27	34
35	16	13
17	12	?

- A) 18 B) 19 C) 20 D) 21 E) 23

6.

18	15	24
14	10	32
26	16	17
63	?	41

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

7.

12	18	15
22	38	30
11	21	16
19	43	?

- A) 28 B) 29 C) 30 D) 31 E) 32

8.

7	1	50
8	3	73
2	6	40
4	5	?

- A) 41 B) 42 C) 43 D) 44 E) 45

9.

12	23	15
24	13	24
16	22	28
25	54	?

- A) 52 B) 56 C) 60 D) 63 E) 69

10.

10	3	17
8	4	12
7	5	9
9	3	?

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

11.

2	3	12
4	4	32
6	2	24
7	2	?

- A) 14 B) 16 C) 22 D) 28 E) 35

12.

3	6	9
5	8	14
2	10	9
4	6	?

- A) 7 B) 8 C) 9 D) 10 E) 11

1.

2	5	5
1	6	4
8	1	9
3	6	?

- A) 3 B) 4 C) 5 D) 6 E) 7

4.

7	6	14
9	8	24
6	9	18
5	12	?

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

2.

1	5	2
2	13	3
3	10	1
4	?	3

- A) 12 B) 18 C) 21 D) 25 E) 27

5.

4	3	48
2	5	20
5	3	75
3	8	?

- A) 72 B) 48 C) 36 D) 24 E) 12

3.

3	7	17
5	8	21
2	6	14
7	4	?

- A) 14 B) 15 C) 16 D) 17 E) 18

6.

3	4	12
2	3	10
8	4	17
6	5	?

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

7.

15	16	4
14	23	10
21	33	9
18	24	?

- A) 10 B) 9 C) 8 D) 7 E) 6

8.

4	3	13
6	4	25
3	7	22
5	8	?

- A) 39 B) 40 C) 41 D) 42 E) 43

9.

4	5	6	7
2	3	1	3
6	7	11	?

- A) 7 B) 8 C) 9 D) 10 E) 11

10.

4	2	6	7
5	7	3	4
29	51	15	?

- A) 11 B) 18 C) 23 D) 25 E) 28

11.

4	7	12	5
8	3	6	11
6	5	9	?

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

12.

1	2	7	5
5	3	2	4
11	8	11	?

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

1.

4	3	6	5
7	1	11	4
9	8	25	?

- A) 21 B) 22 C) 23 D) 24 E) 25

4.

7	10	8	5
2	5	3	7
16	25	19	?

- A) 20 B) 19 C) 18 D) 17 E) 16

2.

12	12	5	26
13	24	4	?
5	6	3	8

- A) 40 B) 38 C) 36 D) 34 E) 32

5.

14	8	22	18
5	5	3	7
?	9	14	16

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

3.

6	2	3	4
3	8	5	2
45	68	34	?

- A) 16 B) 18 C) 20 D) 22 E) 24

6.

7	4	6	3
3	2	3	5
20	7	17	?

- A) 14 B) 13 C) 12 D) 10 E) 9

7.

7	3	5	2
2	4	2	4
49	81	25	?

- A) 4 B) 8 C) 16 D) 24 E) 32

8.

4	3	6	5
1	4	2	3
11	18	?	19

- A) 12 B) 13 C) 15 D) 17 E) 18

9.

5	1	4	3
3	7	4	8
13	9	12	?

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

10.

36	23	44	12
14	16	33	26
5	12	14	?

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

11.

2	3	4	2
6	5	3	7
72	75	36	?

- A) 88 B) 92 C) 96 D) 98 E) 100

12.

4	1	2	4
2	5	3	3
40	52	26	?

- A) 42 B) 46 C) 50 D) 54 E) 56

1.

2	8	15	23
5	20	14	34
9	36	6	42
7	?	23	?

- A) 28,50 B) 28,51 C) 26,49
D) 26,50 E) 24,51

4.

6	11	7	8
12	10	8	10
15	12	9	12
10	18	5	?

- A) 9 B) 11 C) 13 D) 15 E) 17

2.

7	20	5	15
4	19	8	13
3	10	9	17
5	9	6	?

- A) 18 B) 19 C) 20 D) 21 E) 22

5.

6	5	20	5
7	6	30	9
4	8	21	5
3	6	?	6

- A) 13 B) 14 C) 15 D) 16 E) 17

3.

10	12	14	6
8	10	7	5
5	3	1	3
?	7	3	4

- A) 2 B) 3 C) 4 D) 5

6.

4	10	5	1
6	16	3	7
8	15	6	1
5	11	?	2

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

7.

10	3	4	14
12	2	5	8
19	6	3	17
14	4	5	?

- A) 23 B) 24 C) 25 D) 26 E) 27

8.

4	9	6	6
3	8	6	4
8	6	4	12
12	6	8	?

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

9.

6	7	4	2
8	9	7	2
3	5	1	5
6	9	5	?

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

10.

7	5	2	4
5	8	2	6
9	7	3	2
8	9	3	?

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

11.

2	1	6	4
4	6	4	3
5	2	5	2
3	2	?	3

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

12.

3	4	4	9
2	6	6	4
5	4	8	1
1	5	A	B

$$\Rightarrow A + B = ?$$

- A) 10 B) 9 C) 8 D) 7 E) 6

1.

2	4	8
6	3	15
1	7	9
3	2	?

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

4.

4	7	9
5	10	15
6	20	16
7	23	?

A) 28 B) 27 C) 26 D) 25 E) 24

2.

4	7	18
3	2	7
5	3	11
2	6	?

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

5.

4	20	10
12	18	4
8	15	11
14	11	?

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

3.

3	1	10
2	5	29
1	4	17
3	4	?

A) 7 B) 12 C) 16 D) 20

6.

7	9	8
1	13	7
6	14	10
8	20	?

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

7.

7	5	18
4	3	5
29	7	20
24	?	12

- A) 3 B) 4 C) 5 D) 6 E) 7

8.

2	1	3
4	5	12
8	3	10
6	1	?

- A) 3 B) 5 C) 8 D) 11 E) 13

9.

1	5	12
3	8	22
6	3	18
7	3	?

- A) 15 B) 17 C) 20 D) 21 E) 25

10.

4	2	4
6	1	25
7	4	9
8	2	?

- A) 81 B) 64 C) 49 D) 36 E) 25

11.

6	5	1
7	2	125
4	1	27
7	3	?

- A) 81 B) 64 C) 27 D) 16 E) 8

12.

2	1	18
4	3	98
1	5	72
2	3	?

- A) 8 B) 10 C) 25 D) 32 E) 50

1.

5	6	15	2
4	6	3	8
11	9	?	3

- A) 24 B) 30 C) 33 D) 36 E) 40

4.

12	7	9	11
9	16	8	6
5	13	7	?

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

2.

4	5	12	8
3	6	4	14
8	2	13	?

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

5.

18	3	1	7
24	12	6	8
36	4	2	?

- A) 11 B) 9 C) 8 D) 6 E) 4

3.

5	12	6	11
13	8	19	2
8	22	14	?

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

6.

24	8	16	3
36	9	27	4
40	A	32	B

$$\Rightarrow A - B = ?$$

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

7.

18	5	3	20
24	1	6	19
4	11	8	?

- A) 6 B) 7 C) 8 D) 9 E) 10

8.

1	2	4	9
5	4	3	17
?	6	2	19

- A) 5 B) 7 C) 9 D) 11 E) 13

9.

2	3	6	5
4	7	28	11
6	A	48	B

$$\Rightarrow A + B = ?$$

- A) 20 B) 21 C) 22 D) 23 E) 24

10.

16	8	3	8
27	8	5	7
11	9	10	?

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

11.

4	7	3	14
8	1	12	21
5	6	?	20

- A) 11 B) 10 C) 9 D) 8 E) 7

12.

2	4	6	12
3	9	12	18
4	16	A	B

$$\Rightarrow A + B = ?$$

- A) 44 B) 40 C) 36 D) 32 E) 28

1.

10	2	8	12
3	5	1	14
8	3	11	?

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

4.

13	3	5	15
9	5	2	6
16	6	?	11

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

2.

9	6	2	6
11	8	4	9
17	12	3	?

- A) 15 B) 114 C) 13 D) 12 E) 11

5.

4	8	3	1
7	6	13	11
10	7	5	?

- A) 6 B) 7 C) 8 D) 9 E) 10

3.

3	12	18	15
4	16	24	20
7	28	?	35

- A) 21 B) 42 C) 49 D) 56 E) 63

6.

24	6	2	2
48	8	3	2
72	6	3	?

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

7.

6	4	20
3	1	8
4	3	7
5	2	?

- A) 21 B) 20 C) 18 D) 16 E) 10

10.

12	11	2
17	13	32
16	10	72
19	16	?

- A) 2 B) 8 C) 18 D) 32 E) 50

8.

8	5	9
6	3	6
2	4	5
10	7	?

- A) 13 B) 12 C) 11 D) 10 E) 9

11.

5	2	5
6	1	4
9	4	7
4	6	?

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

9.

1	4	25
2	6	64
5	2	49
3	1	?

- A) 4 B) 9 C) 16 D) 25 E) 36

12.

4	3	29
3	4	14
6	10	62
5	4	?

- A) 41 B) 42 C) 44 D) 46 E) 47

1.

42	21	1	8
53	16	5	6
27	23	4	5
43	18	6	?

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

2.

3	10	7	17
4	17	9	26
5	26	11	37
6	37	A	B

$$\Rightarrow A + B = ?$$

- A) 64 B) 63 C) 62 D) 61 E) 60

3.

3	5	4	7
2	7	5	3
4	11	5	9
6	12	3	?

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

4.

7	3	40	58
4	1	15	17
8	5	39	89
?	4	20	52

- A) 4 B) 5 C) 6 D) 7 E) 8

5.

9	4	6	1
4	6	1	8
7	8	4	?

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

6.

2	8	61
8	4	23
6	9	45
3	5	?

- A) 51 B) 49 C) 47 D) 45 E) 43

7.

4	5	15	16
3	7	14	18
6	8	40	42
x	y	36	40

$\Rightarrow x + y = ?$

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

8.

7	8	11
5	6	8
14	10	19
9	12	?

- A) 13 B) 14 C) 15 D) 16 E) 17

9.

12	20	18	14
7	6	11	9
13	16	20	?

- A) 4 B) 9 C) 16 D) 25 E) 36

10.

5	15	18
7	14	17
9	15	?
13	13	13

- A) 14 B) 15 C) 16 D) 17 E) 18

11.

2	1	4	3
3	9	3	6
6	4	?	2

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

12.

4	3	5	6
2	7	3	5
16	23	21	?

- A) 24 B) 25 C) 26 D) 27 E) 28

1.

	2	4	3
5	3	9	15
3	1	7	9
8	6	12	24
2	?	?	?

- A) 4, 2, 6 B) 2, 2, 6 C) 0, 6, 6
D) 0, 2, 6 E) 2, 4, 6

2.

	5	3	13
7	6	5	I
5	5	II	9
9	III	6	11

 $\Rightarrow$ I, II, III = ?

- A) 8, 4, 7 B) 10, 6, 7 C) 10, 4, 6
D) 10, 4, 7 E) 8, 6, 2

3.

	2	1	5
3	1	8	8
4	2	15	9
7	5	48	12
6	?	?	?

- A) 4, 7, 11 B) 8, 7, 30 C) 8, 35, 11
D) 4, 35, 11 E) 4, 35, 30

4.

	9	6	8
2	14	16	18
4	10	20	12
5	8	22	9
6	?	?	?

- A) 6, 24, 6 B) 30, 24, 6 C) 6, 0, 6
D) 6, 12, 9 E) 30, 12, 9

5.

	a	b	c
2	5	11	8
3	6	12	9
7	10	16	13
5	?	?	?

- A) 8, 14, 20 B) 8, 10, 10 C) 6, 14, 11
D) 4, 10, 12 E) 8, 14, 11

6.

	2	11	9
7	-	9	8
4	3	-	-
6	4	-	-
5	?	?	?

- A) -, 8, 7 B) -, 6, 8 C) 4, -, -
D) 5, 6, - E) 4, -, 7

7.

	1	2	3
2	5	8	I
5	II	29	34
4	17	III	25

 $\Rightarrow$ I, II, III = ?

- A) 15, 26, 20 B) 13, 26, 39 C) 15, 31, 24
D) 12, 31, 39 E) 13, 26, 20

8.

	3	11	7
6	9	1	5
5	7	-	3
3	?	-	-

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

9.

7	4	1	8
8	5	8	6
5	1	6	9
3	?	8	1

- A) 0 B) 1 C) 2 D) 3 E) 4

10.

6	8	4	8
7	9	6	3
4	9	3	6
8	4	?	2

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

11.

	21	24	27	
			23	
				22
?		15	18	

- A) 7 B) 9 C) 12 D) 13 E) 14

12.

A			10
	8		13
	11	13	
13		16	B

 $\Rightarrow$ A + B = ?

- A) 20 B) 21 C) 22 D) 23 E) 24

1.

	△	□	○
□	13	17	
○		21	
△	19		?

- A) 29 B) 30 C) 31 D) 32 E) 33

2.

	△	○	○
□	?		80
○		61	
△	18		73

- A) 24 B) 25 C) 26 D) 27 E) 28

3.

	△	□	○
△		49	
□		?	81
○	64		

- A) 16 B) 25 C) 36 D) 49 E) 64

4.

	/	×	×
×	5		29
×		25	
×	?		61

- A) 34 B) 35 C) 36 D) 37 E) 38

5.

	△	□	○
□	13		11
○		?	
○	33		31

- A) 20 B) 21 C) 22 D) 23 E) 24

6.

	○□	○□	□△
△□	32	36	24
□○	44	48	36
△○	35	?	27

- A) 35 B) 36 C) 37 D) 38 E) 39

7.

	○	△	□
□	9		13
○		15	
○	3		?

- A) 7 B) 8 C) 9 D) 10 E) 11

8.

	□○	○△	△□
○△	9	15	
△○	13		15
○□		21	?

- A) 15 B) 16 C) 17 D) 18 E) 19

9.

	—	≠	#
≠	8		7
+		5	12
#	?	16	

- A) 21 B) 22 C) 23 D) 24 E) 25

10.

	V	Y	X
Y	5		11
V		5	
X	9	14	?

- A) 15 B) 16 C) 17 D) 18 E) 19

11.

	□	○	△
○	12		15
△		28	—
△	6		?

- A) — B) 5 C) 6 D) 7 E) 8

12.

	××	××	/×
/×	28	215	
××			63
/×		?	

- A) 43 B) 46 C) 415 D) 418 E) 424

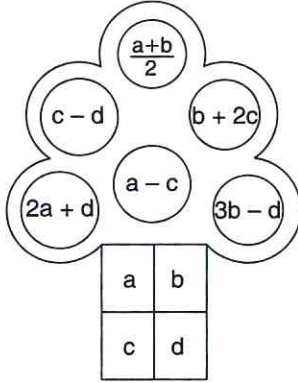


DENKLEM EŞLEŞTİRME

EQUATION MATCHING

5
TEST
Tests

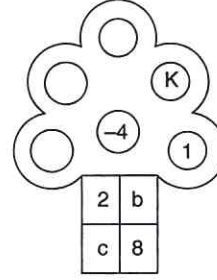
40
SORU
Questions



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question. Each question is to be answered independently.

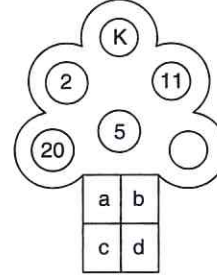
2.



⇒ K = ?

- A) 14 B) 15 C) 16 D) 17 E) 18

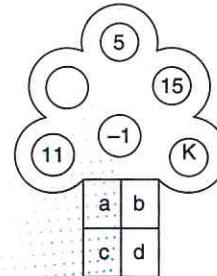
3.



⇒ K = ?

- A) 6 B) 7 C) 8 D) 9 E) 10

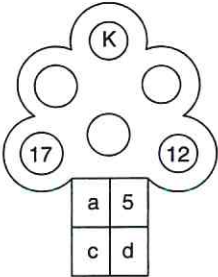
4.



⇒ K = ?

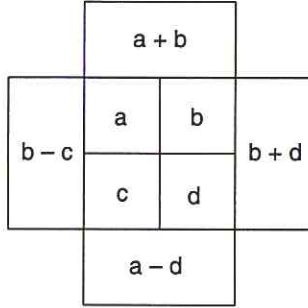
- A) 14 B) 15 C) 16 D) 17 E) 18

1.



⇒ K = ?

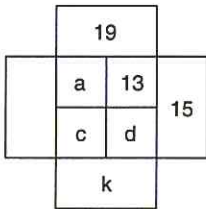
- A) 3 B) 4 C) 5 D) 6 E) 7



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

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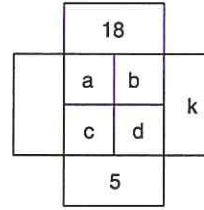
5.



$\Rightarrow K = ?$

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

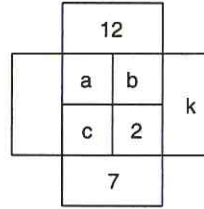
6.



$\Rightarrow K = ?$

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

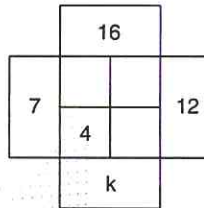
7.



$\Rightarrow K = ?$

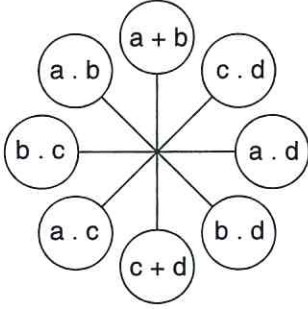
- A) 4 B) 5 C) 6 D) 7 E) 8

8.



$\Rightarrow K = ?$

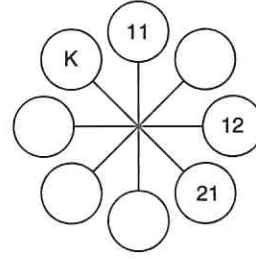
- A) 1 B) 2 C) 3 D) 4 E) 5



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

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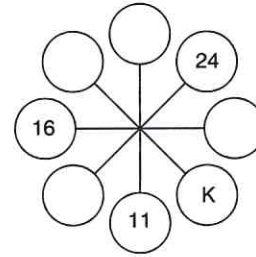
2.



$\Rightarrow K = ?$

- A) 20 B) 24 C) 25 D) 27 E) 28

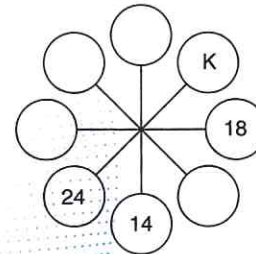
3.



$\Rightarrow K = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

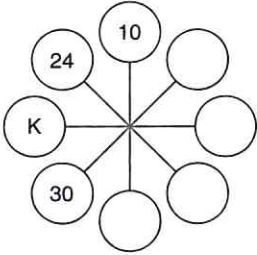
4.



$\Rightarrow K = ?$

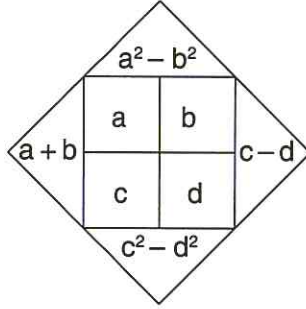
- A) 42 B) 48 C) 50 D) 54 E) 56

1.



$\Rightarrow K = ?$

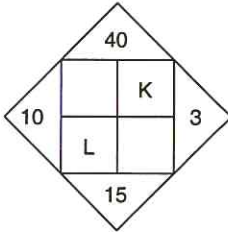
- A) 12 B) 16 C) 18 D) 20 E) 24



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

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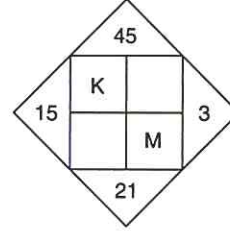
5.



$$\Rightarrow K + L = ?$$

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

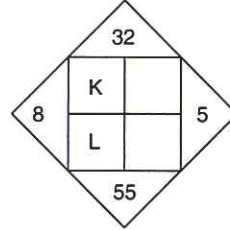
6.



$$\Rightarrow K + M = ?$$

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

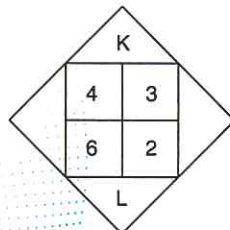
7.



$$\Rightarrow K + L = ?$$

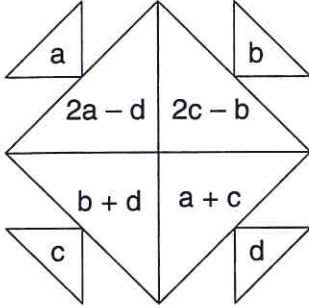
- A) 14 B) 13 C) 12 D) 11 E) 10

8.



$$\Rightarrow K + L = ?$$

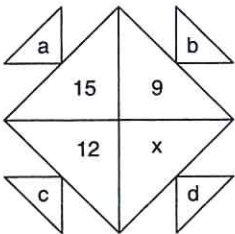
- A) 36 B) 37 C) 38 D) 39 E) 40



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

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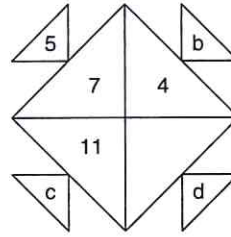
1.



$\Rightarrow X = ?$

- A) 17 B) 18 C) 19 D) 20 E) 21

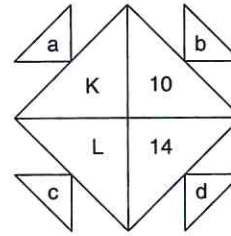
2.



$\Rightarrow c = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

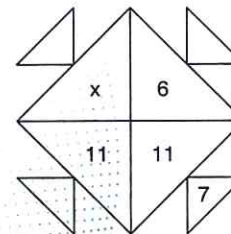
3.



$\Rightarrow K + L = ?$

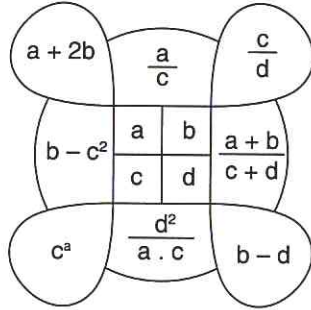
- A) 20 B) 19 C) 18 D) 16 E) 13

4.



$\Rightarrow X = ?$

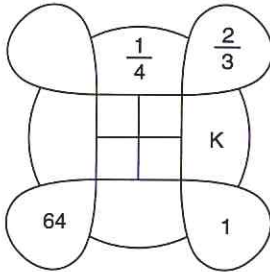
- A) 5 B) 6 C) 7 D) 8 E) 9



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question. Each question is to be answered independently.

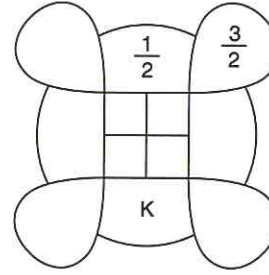
5.



$\Rightarrow K = ?$

- A) $\frac{4}{5}$ B) $\frac{5}{4}$ C) $\frac{3}{4}$ D) $\frac{3}{5}$ E) $\frac{1}{2}$

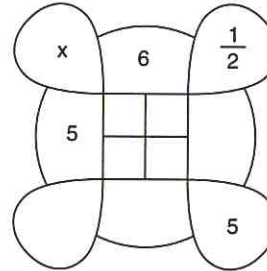
6.



$\Rightarrow K = ?$

- A) $\frac{9}{8}$ B) $\frac{3}{4}$ C) 2 D) $\frac{4}{3}$ E) $\frac{8}{9}$

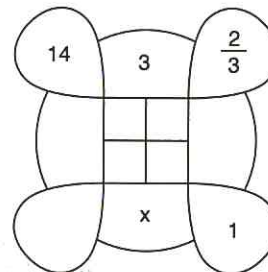
7.



$\Rightarrow x = ?$

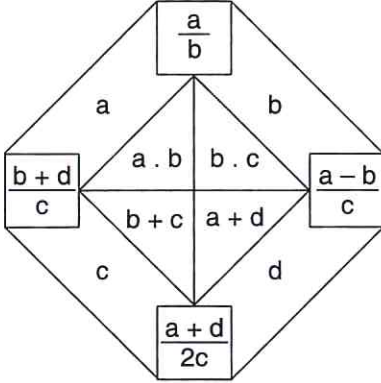
- A) 30 B) 28 C) 26 D) 24 E) 20

8.



$\Rightarrow X = ?$

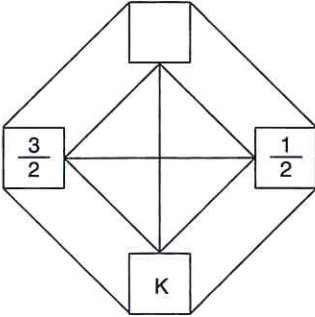
- A) $\frac{4}{3}$ B) $\frac{3}{4}$ C) $\frac{1}{2}$ D) $\frac{2}{3}$ E) $\frac{3}{2}$



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question. Each question is to be answered independently.

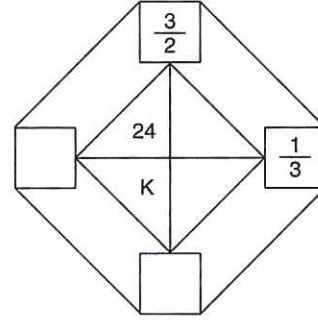
1.



⇒ K = ?

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

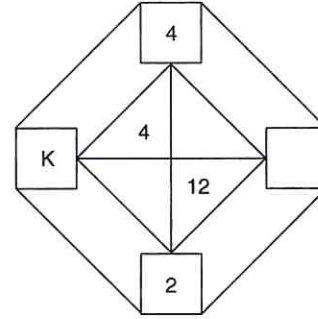
2.



⇒ K = ?

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

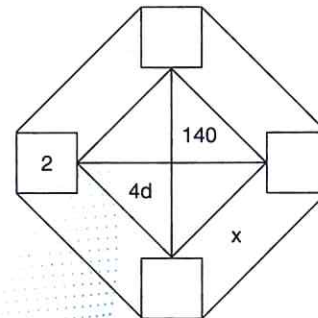
3.



⇒ K = ?

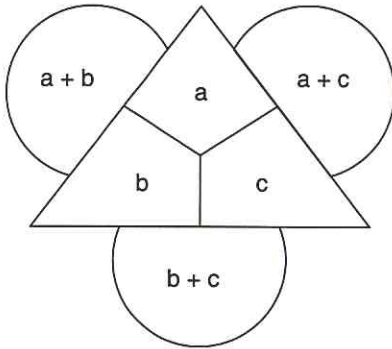
- A) $\frac{9}{4}$ B) $\frac{9}{8}$ C) $\frac{3}{2}$ D) 3 E) 4

4.



⇒ X = ?

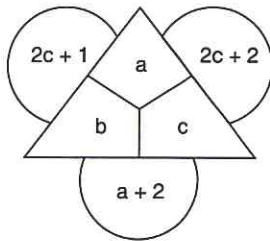
- A) 6 B) 8 C) 10 D) 12 E) 14



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question. Each question is to be answered independently.

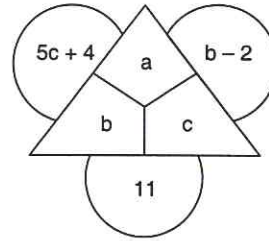
5.



$\Rightarrow a = ?$

- A) 4 B) 5 C) 6 D) 7 E) 8

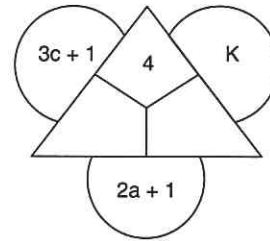
6.



$\Rightarrow a = ?$

- A) 3 B) 4 C) 5 D) 6 E) 7

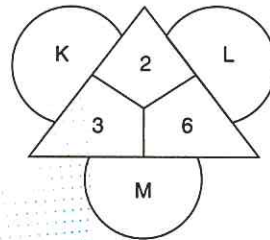
7.



$\Rightarrow K = ?$

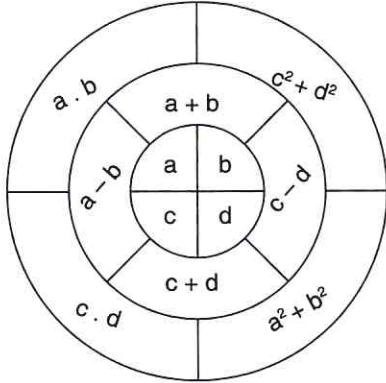
- A) 7 B) 6 C) 5 D) 4 E) 3

8.



$\Rightarrow K + L + M = ?$

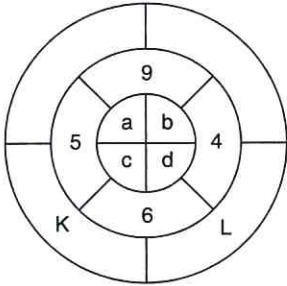
- A) 11 B) 13 C) 18 D) 20 E) 22



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question. Each question is to be answered independently.

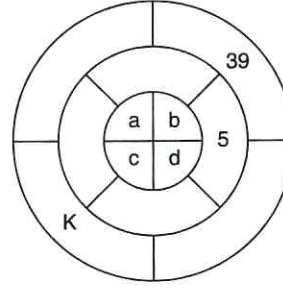
1.



$\Rightarrow K + L = ?$

- A) 60 B) 59 C) 58 D) 57 E) 56

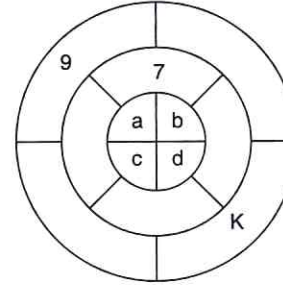
2.



$\Rightarrow K = ?$

- A) 6 B) 7 C) 10 D) 12 E) 14

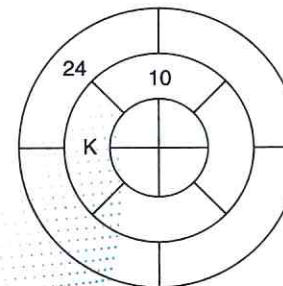
3.



$\Rightarrow K = ?$

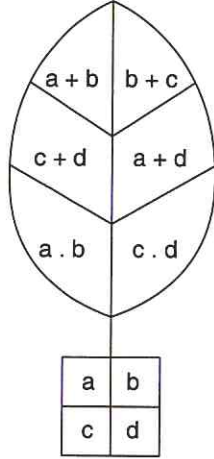
- A) 28 B) 31 C) 35 D) 38 E) 40

4.



$\Rightarrow K = ?$

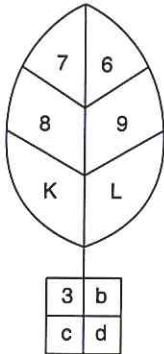
- A) 1 B) 2 C) 3 D) 4 E) 5



Yukarıdaki şekil a, b, c ve d harfleriyle gösterilen dört pozitif sayı ve bu sayıları içeren bazı işlemlere göre düzenlenmiştir. Harflerin gösterdiği sayılar her soruda farklı olabilir. Her soru birbirinden bağımsız olarak cevaplanacaktır.

In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question. Each question is to be answered independently.

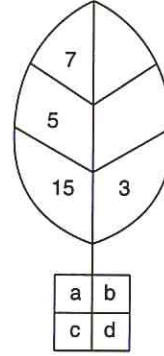
5.



$$\Rightarrow K + L = ?$$

- A) 18 B) 20 C) 22 D) 24 E) 28

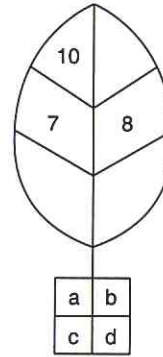
6.



$$\Rightarrow a^2 + b^2 + c^2 + d^2 = ?$$

- A) 37 B) 38 C) 39 D) 40 E) 41

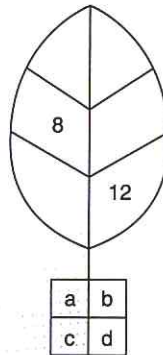
7.



$$\Rightarrow 2a + b - c = ?$$

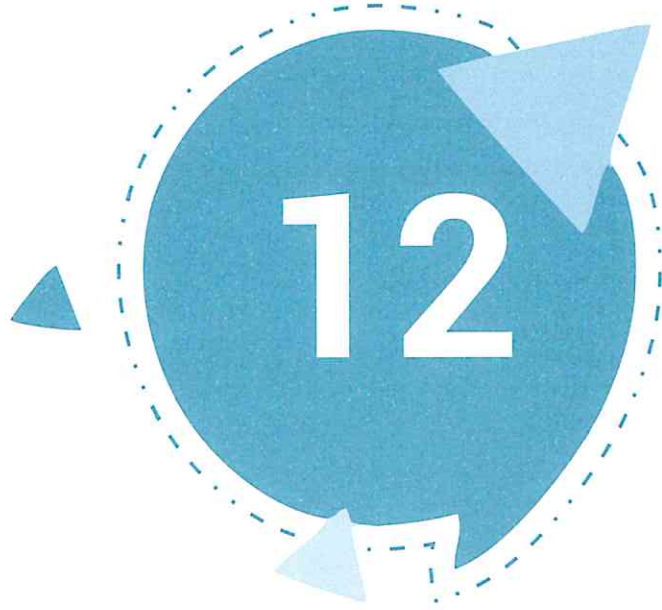
- A) 9 B) 10 C) 11 D) 12 E) 13

8.



$$\Rightarrow c - d = ?$$

- A) 4 B) 5 C) 6 D) 7 E) 8



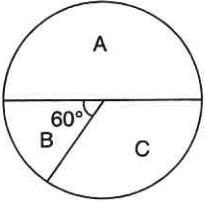
GRAFİKLER

GRAPHS

7
TEST
Tests

86
SORU
Questions

1.

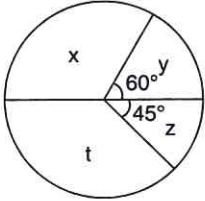


$$A + B + C = 24$$

$$\Rightarrow C = ?$$

- A) 8 B) 9 C) 10 D) 12 E) 15

2.

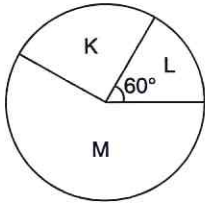


$$x + y + z + t = 72$$

$$\Rightarrow t = ?$$

- A) 9 B) 12 C) 24 D) 27 E) 36

3.

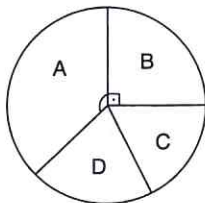


$$M = 3K$$

$$\Rightarrow M = ?$$

- A) 245 B) 225 C) 215 D) 210 E) 190

4.



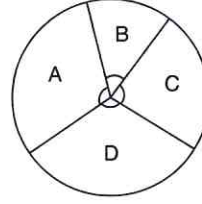
$$5A = 9D$$

$$5B = 6D$$

$$\Rightarrow C = ?$$

- A) 85 B) 80 C) 75 D) 60 E) 45

5.



$$A + B = 150$$

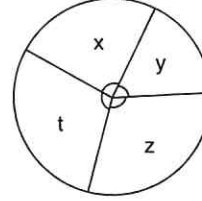
$$B + C = 130$$

$$A + C = 200$$

$$\Rightarrow D = ?$$

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

6.



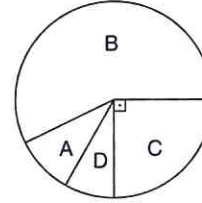
$$x + z = 170$$

$$t - y = 90$$

$$\Rightarrow y = ?$$

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

7.

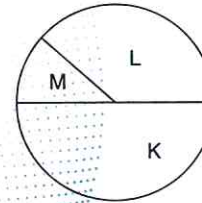


$$B = 4(A + D)$$

$$\Rightarrow B = ?$$

- A) 200 B) 204 C) 208 D) 212 E) 216

8.

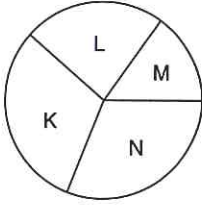


$$6K = 15M = 10L$$

$$\Rightarrow K - M = ?$$

- A) 36 B) 54 C) 72 D) 96 E) 108

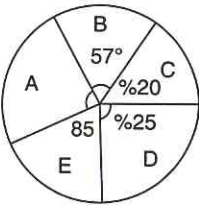
9.



$$\begin{aligned} L &= 2M \\ N - L &= 30 \\ K - N &= 20 \\ K + M &= 170 \\ \Rightarrow L &= ? \end{aligned}$$

- A) 40 B) 70 C) 80 D) 110 E) 130

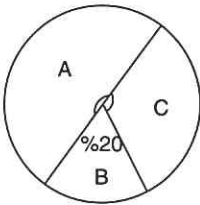
10.



$$\Rightarrow A = ?$$

- A) 54 B) 56 C) 58 D) 66 E) 72

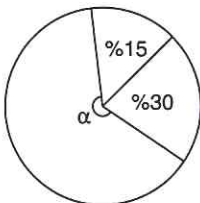
11.



$$\Rightarrow C = ?$$

- A) 75 B) 90 C) 108 D) 120 E) 136

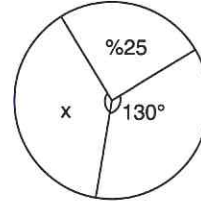
12.



$$\Rightarrow \alpha = ?$$

- A) 198 B) 196 C) 194 D) 192 E) 188

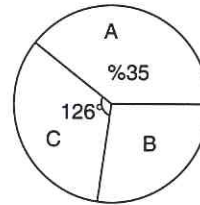
13.



$$\Rightarrow x = ?$$

- A) 135 B) 140 C) 145 D) 150 E) 155

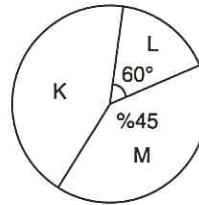
14.



$$\Rightarrow B = ?$$

- A) 136 B) 124 C) 110 D) 108 E) 96

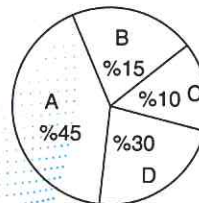
15.



$$M - K = ?$$

- A) 20 B) 21 C) 22 D) 23 E) 24

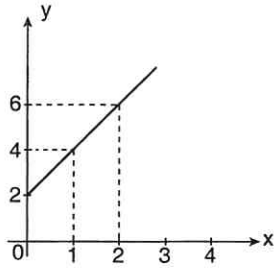
16.



$$A - 2B + 2C - D = ?$$

- A) 18 B) 20 C) 24 D) 36 E) 54

1.

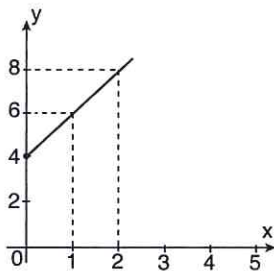


$$x = 40$$

$$\Rightarrow y = ?$$

- A) 78 B) 79 C) 80 D) 81 E) 82

2.

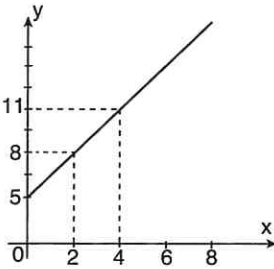


$$x = 36$$

$$\Rightarrow y = ?$$

- A) 64 B) 68 C) 72 D) 76 E) 80

3.

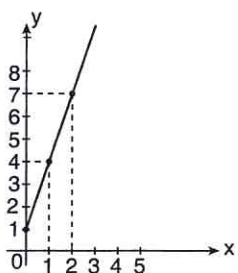


$$x = 44$$

$$\Rightarrow y = ?$$

- A) 66 B) 71 C) 75 D) 78 E) 82

4.

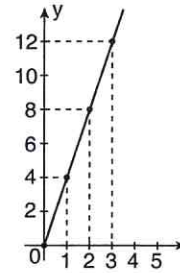


$$x = 48$$

$$\Rightarrow y = ?$$

- A) 145 B) 146 C) 147 D) 148 E) 149

5.

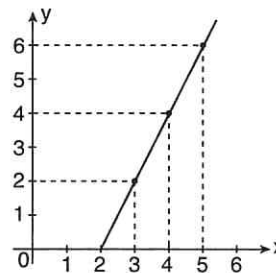


$$x = 24$$

$$\Rightarrow y = ?$$

- A) 80 B) 88 C) 96 D) 100 E) 104

6.

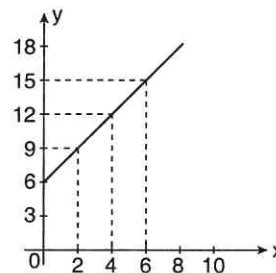


$$x = 30$$

$$\Rightarrow y = ?$$

- A) 52 B) 56 C) 60 D) 66 E) 68

7.

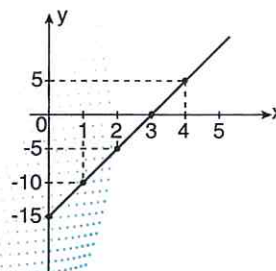


$$x = 54$$

$$\Rightarrow y = ?$$

- A) 75 B) 81 C) 87 D) 90 E) 92

8.

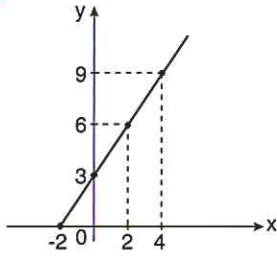


$$x = -8$$

$$\Rightarrow y = ?$$

- A) -55 B) -35 C) 0 D) 35 E) 55

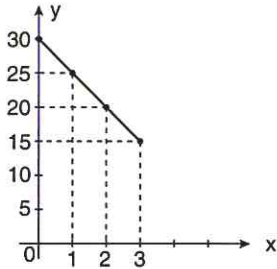
9.



$$x = 30 \\ \Rightarrow y = ?$$

- A) 43 B) 42 C) 45 D) 48 E) 90

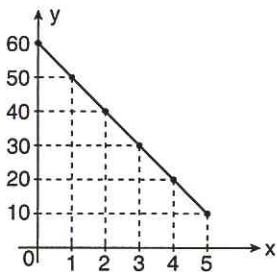
10.



$$x = 12 \\ \Rightarrow y = ?$$

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

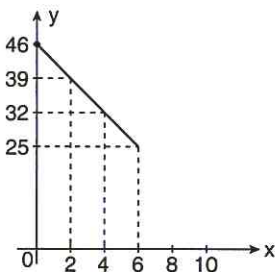
11.



$$x = 15 \\ \Rightarrow y = ?$$

- A) -15 B) -30 C) -45 D) -60 E) -90

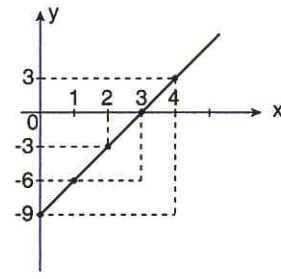
12.



$$x = 28 \\ \Rightarrow y = ?$$

- A) -38 B) -48 C) -52 D) -54 E) -57

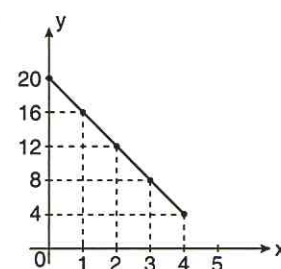
13.



$$x = 10 \\ \Rightarrow y = ?$$

- A) 21 B) 24 C) 27 D) 30 E) 33

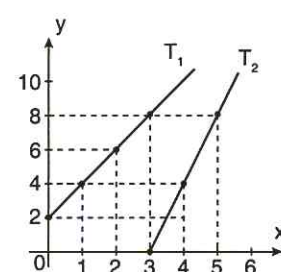
14.



$$x = 18 \\ \Rightarrow y = ?$$

- A) -92 B) -72 C) -52 D) -42 E) -32

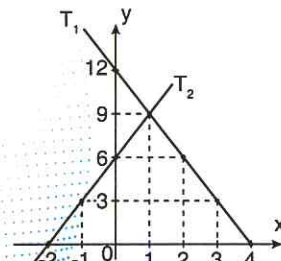
15.



$$T_1 \Rightarrow x_1 = 15 \\ y_1 = a \\ T_2 \Rightarrow x_2 = 15 \\ y_2 = b \\ a + b = ?$$

- A) 76 B) 79 C) 80 D) 82 E) 84

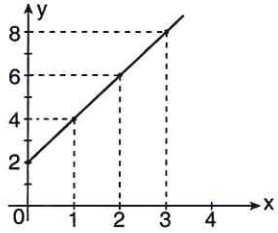
16.



$$T_1 \Rightarrow x_1 = 10 \\ y_1 = a \\ T_2 \Rightarrow x_2 = 10 \\ y_2 = b \\ a + b = ?$$

- A) 12 B) 15 C) 18 D) 21 E) 24

1.

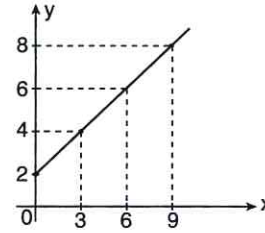


$$y = 48$$

$$\Rightarrow x = ?$$

- A) 21 B) 22 C) 23 D) 24 E) 25

5.

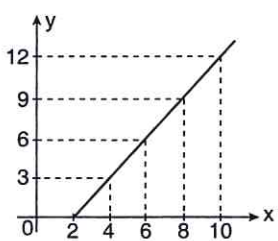


$$x = 72$$

$$\Rightarrow y = ?$$

- A) 42 B) 48 C) 50 D) 52 E) 60

2.

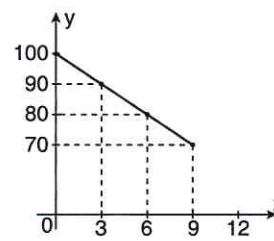


$$y = 36$$

$$\Rightarrow x = ?$$

- A) 20 B) 22 C) 24 D) 26 E) 30

6.

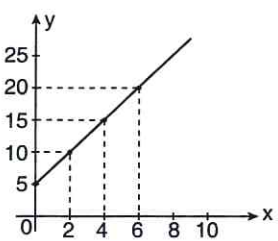


$$x = 36$$

$$\Rightarrow y = ?$$

- A) -5 B) -10 C) -15 D) -20 E) -30

3.

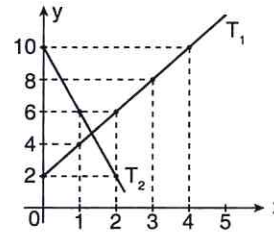


$$x = 16$$

$$\Rightarrow y = ?$$

- A) 41 B) 42 C) 45 D) 47 E) 48

7.



$$T_1 \Rightarrow x = 8$$

$$y = a$$

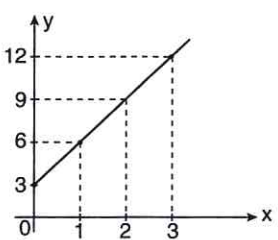
$$T_2 \Rightarrow x = 8$$

$$y = b$$

$$a + b = ?$$

- A) -4 B) -1 C) 0 D) 8 E) 16

4.

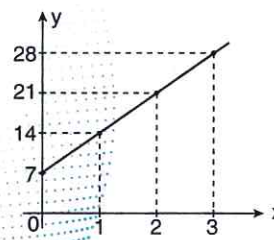


$$x = -7$$

$$\Rightarrow y = ?$$

- A) -21 B) -18 C) -15 D) -12 E) -9

8.

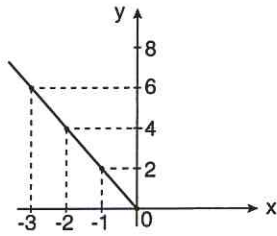


$$y = 133$$

$$\Rightarrow x = ?$$

- A) 18 B) 19 C) 20 D) 21 E) 22

9.

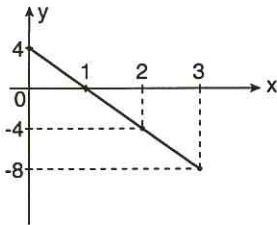


$$y = 20$$

$$\Rightarrow x = ?$$

- A) -10 B) -9 C) -8 D) -7 E) -6

10.

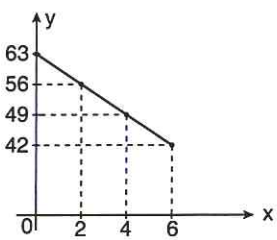


$$y = -64$$

$$\Rightarrow x = ?$$

- A) 14 B) 15 C) 16 D) 17 E) 18

11.

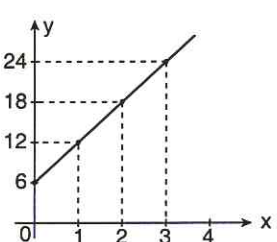


$$x = 18$$

$$\Rightarrow y = ?$$

- A) 0 B) 1 C) 4 D) 6 E) 8

12.

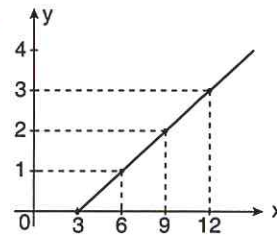


$$y = 108$$

$$\Rightarrow x = ?$$

- A) 12 B) 14 C) 17 D) 18 E) 20

13.

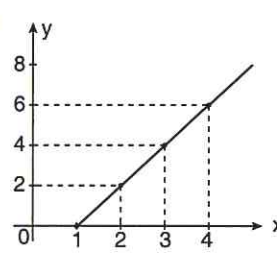


$$x = 39$$

$$\Rightarrow y = ?$$

- A) 12 B) 10 C) 9 D) 8 E) 7

14.

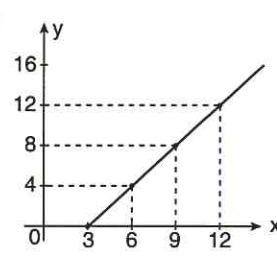


$$y = 66$$

$$\Rightarrow x = ?$$

- A) 30 B) 32 C) 33 D) 34 E) 36

15.

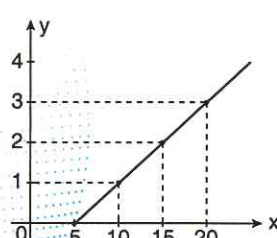


$$y = 100$$

$$\Rightarrow x = ?$$

- A) 74 B) 75 C) 76 D) 77 E) 78

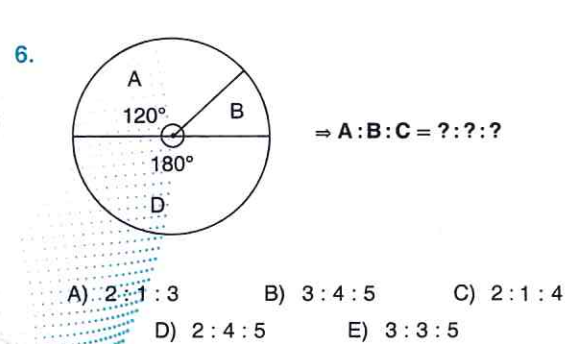
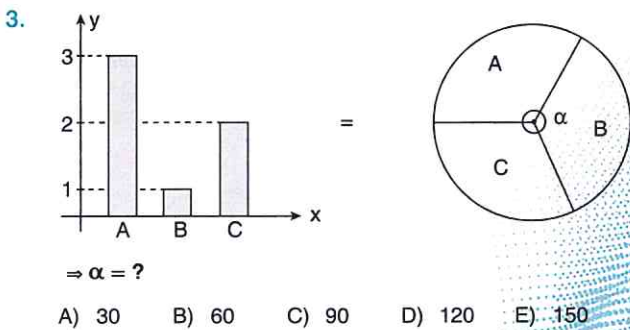
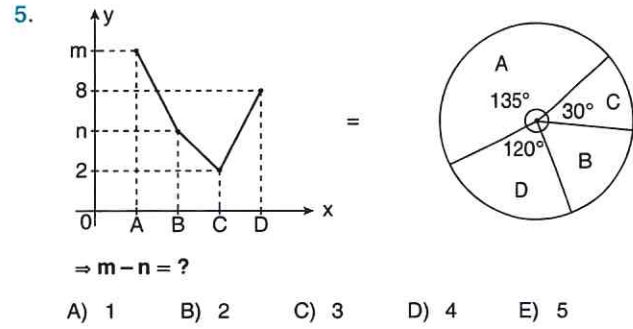
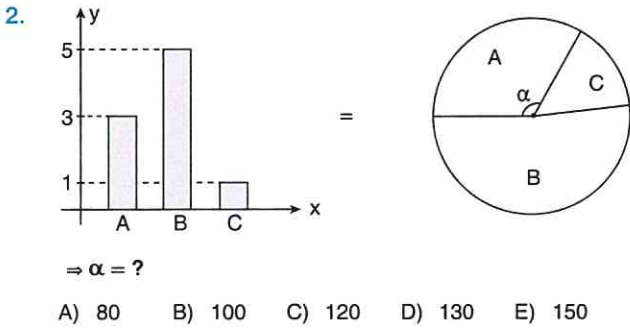
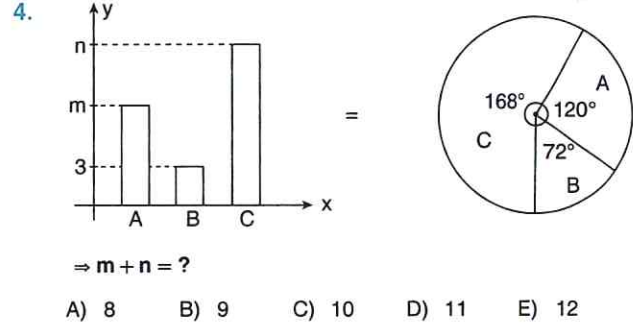
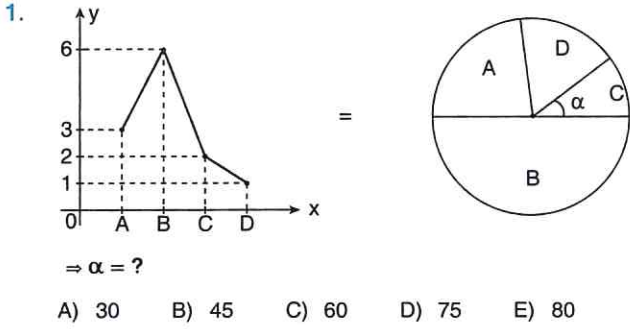
16.



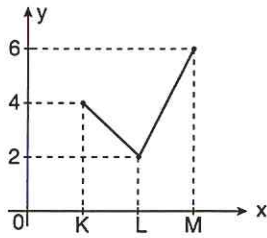
$$x = 200$$

$$\Rightarrow y = ?$$

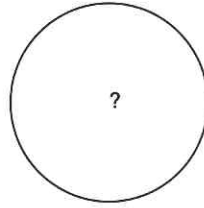
- A) 40 B) 39 C) 38 D) 37 E) 36



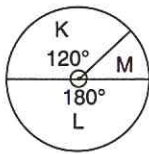
7.



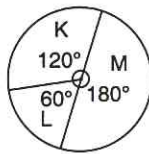
=



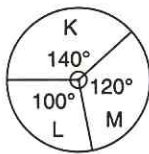
A)



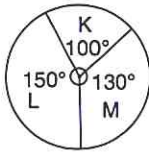
B)



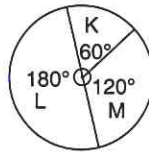
C)



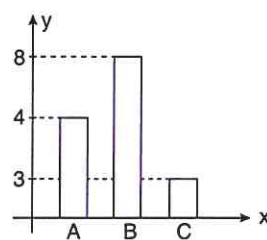
D)



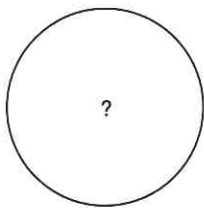
E)



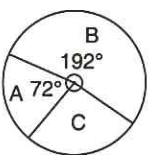
8.



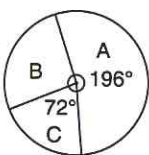
=



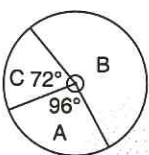
A)



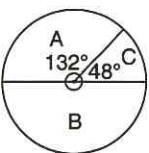
B)



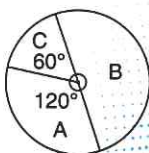
C)



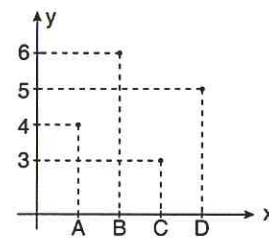
D)



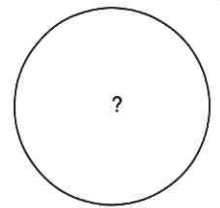
E)



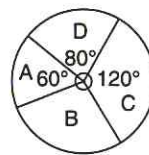
9.



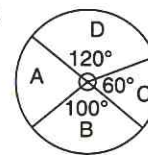
=



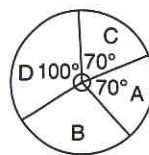
A)



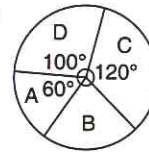
B)



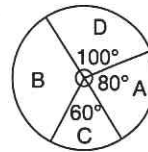
C)



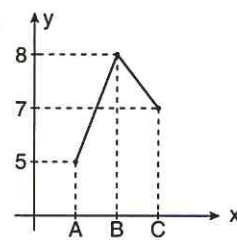
D)



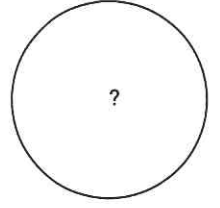
E)



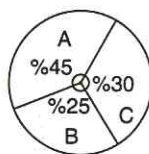
10.



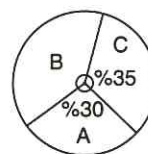
=



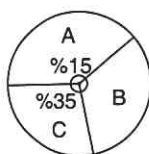
A)



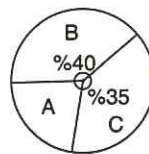
B)



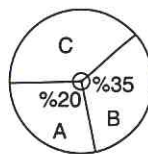
C)



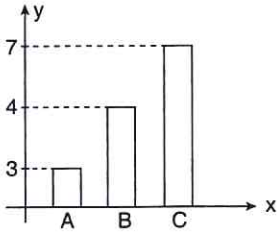
D)



E)



1.

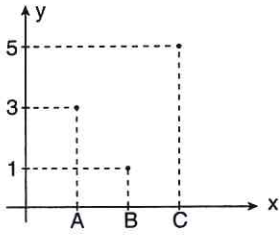


$$A - B + C = 42$$

$$\Rightarrow B = ?$$

- A) 24 B) 28 C) 30 D) 34 E) 36

2.

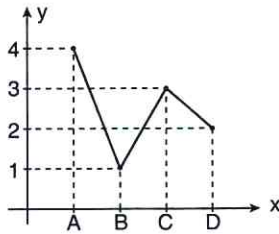


$$A + B + C = 180$$

$$\Rightarrow C = ?$$

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

3.



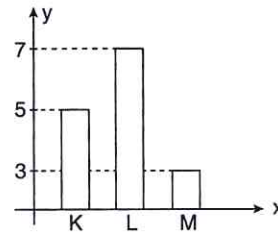
$$A + B + C + D = 240$$

$$\Rightarrow D - B = ?$$

- A) 12 B) 18 C) 24 D) 30

E) 36

4.

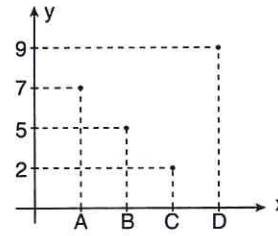


$$K + L + M = 90$$

$$\Rightarrow L = ?$$

- A) 21 B) 28 C) 34 D) 42 E) 56

5.

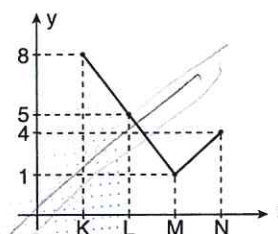


$$A + D - 2B + C = 48$$

$$\Rightarrow D = ?$$

- A) 36 B) 42 C) 48 D) 54 E) 60

6.

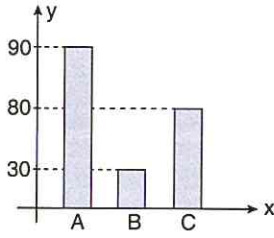


$$K + L + M - N = 63$$

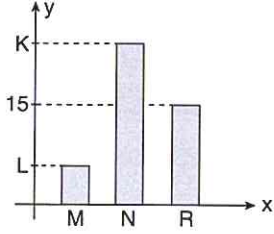
$$\Rightarrow K = ?$$

- A) 56 B) 60 C) 64 D) 72 E) 80

7.



$$\begin{aligned} A &= \%45 \\ B &= \%15 \\ C &= \%40 \end{aligned}$$

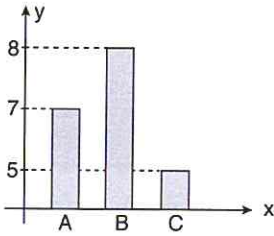


$$\begin{aligned} M &= \%20 \\ N &= \%50 \\ R &= \%30 \end{aligned}$$

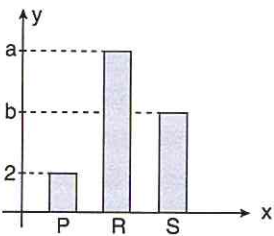
$$\Rightarrow K + L = ?$$

- A) 15 B) 25 C) 35 D) 40 E) 55

8.



$$\begin{aligned} A &= \%35 \\ B &= \%40 \\ C &= \%25 \end{aligned}$$

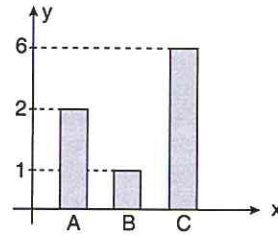


$$\begin{aligned} P &= \%10 \\ R &= \%65 \\ S &= \%25 \end{aligned}$$

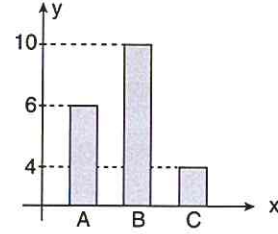
$$\Rightarrow a + b = ?$$

- A) 10 B) 15 C) 18 D) 22 E) 29

9.



$$\begin{aligned} A &= \%20 \\ B &= \%10 \\ C &= \%60 \end{aligned}$$

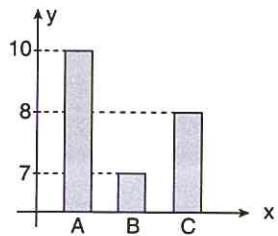


$$\begin{aligned} A &= \%30 \\ B &= \%a \\ C &= \%b \end{aligned}$$

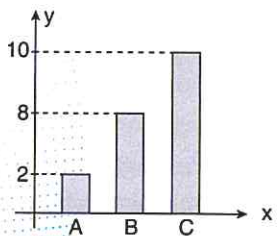
$$\Rightarrow a - b = ?$$

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

10.



$$\begin{aligned} A &= \%40 \\ B &= \%28 \\ C &= \%32 \end{aligned}$$

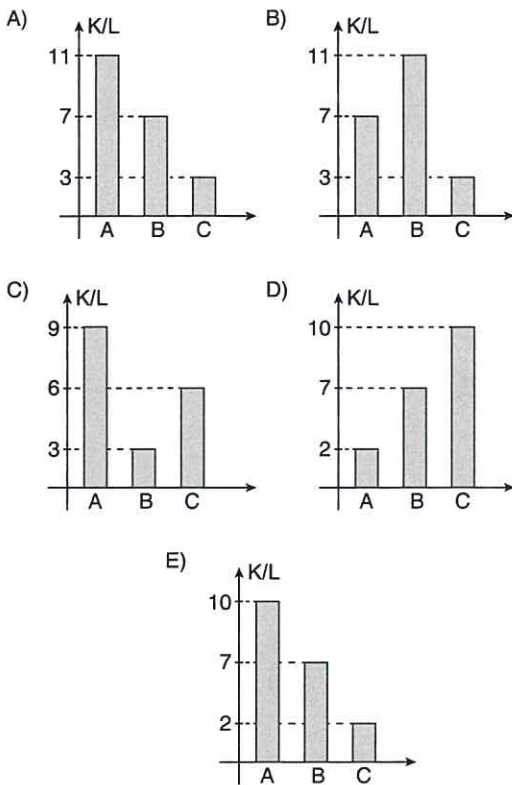
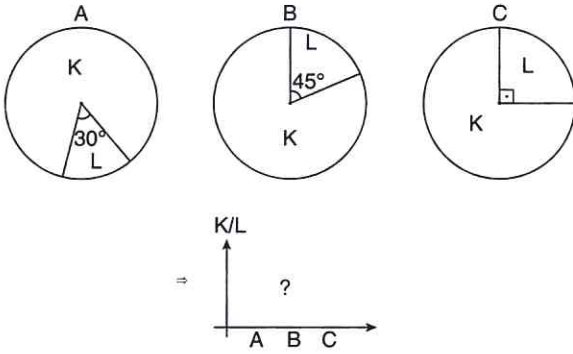


$$\begin{aligned} A &= \%K \\ B &= \%40 \\ C &= \%L \end{aligned}$$

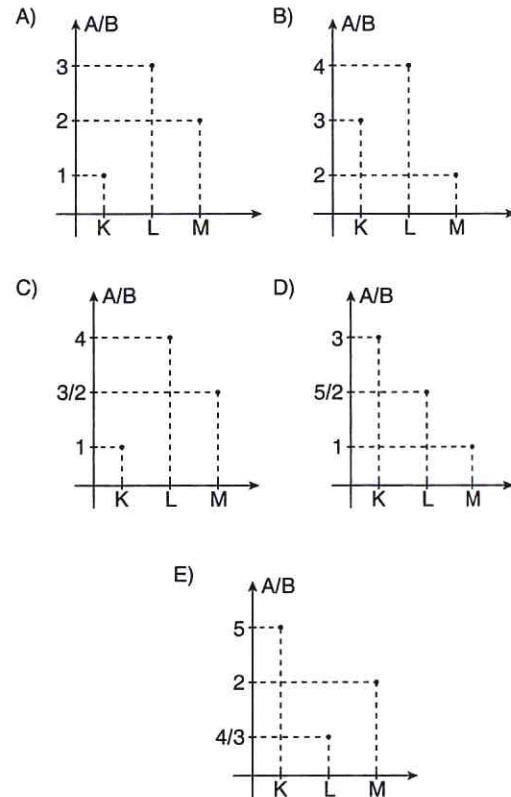
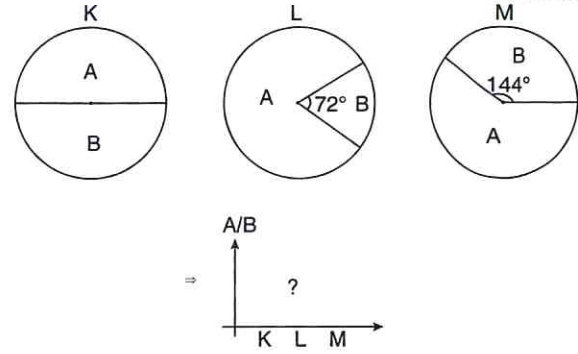
$$\Rightarrow L - K = ?$$

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

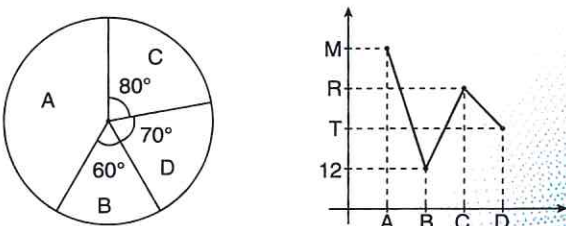
1.



3.



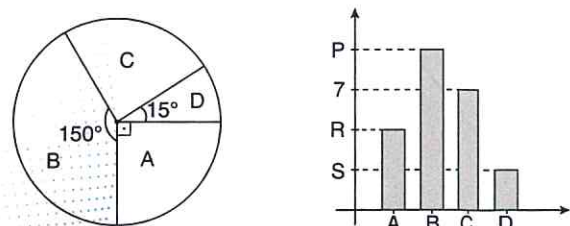
2.



$\Rightarrow 3M - 2R + T = ?$

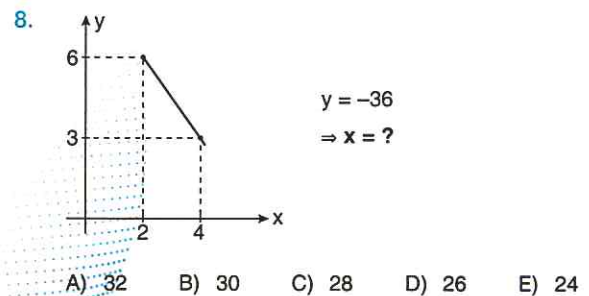
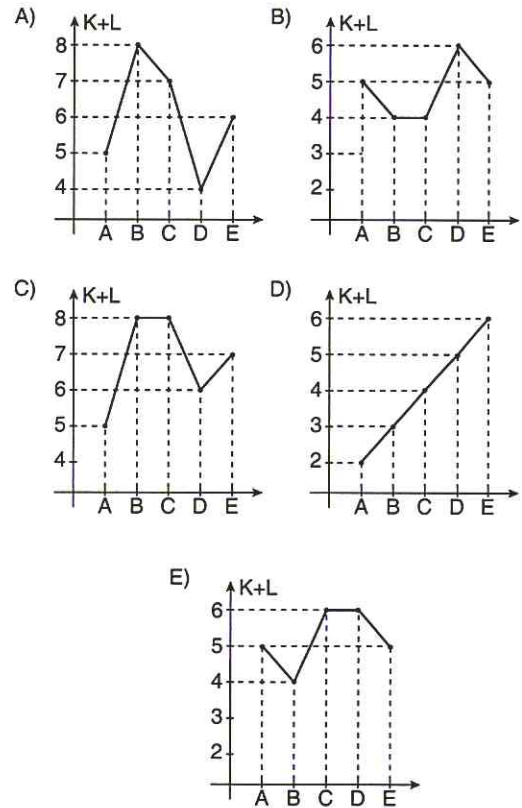
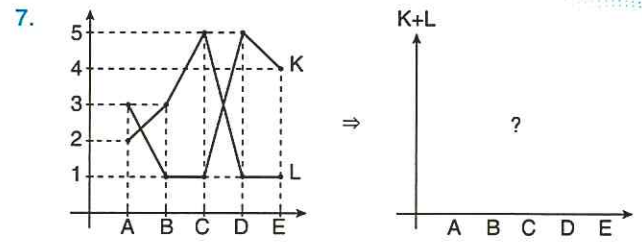
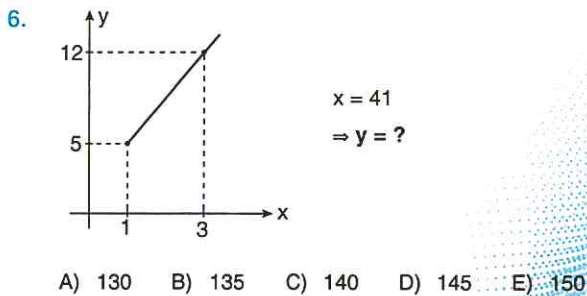
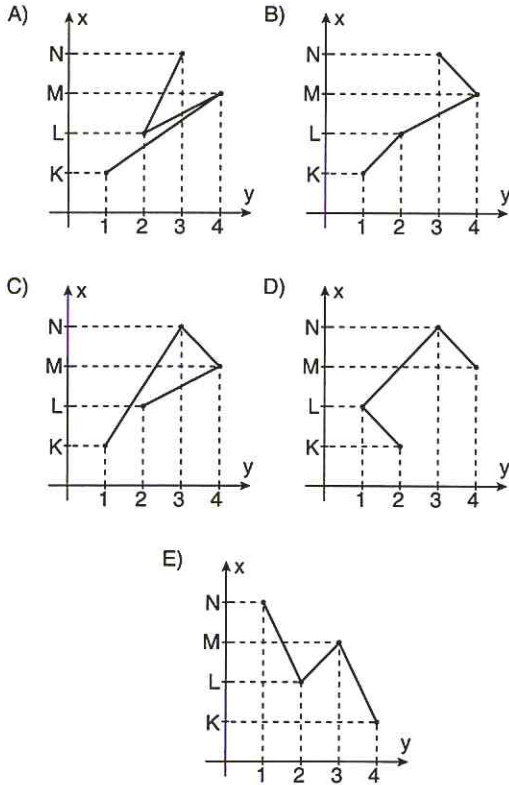
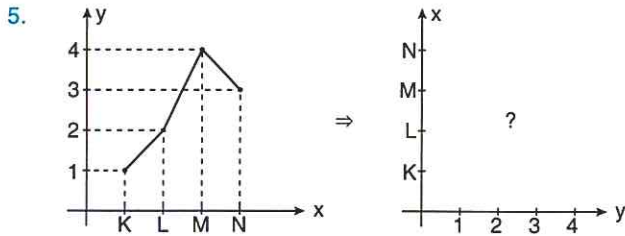
- A) 64 B) 66 C) 68 D) 70 E) 72

4.



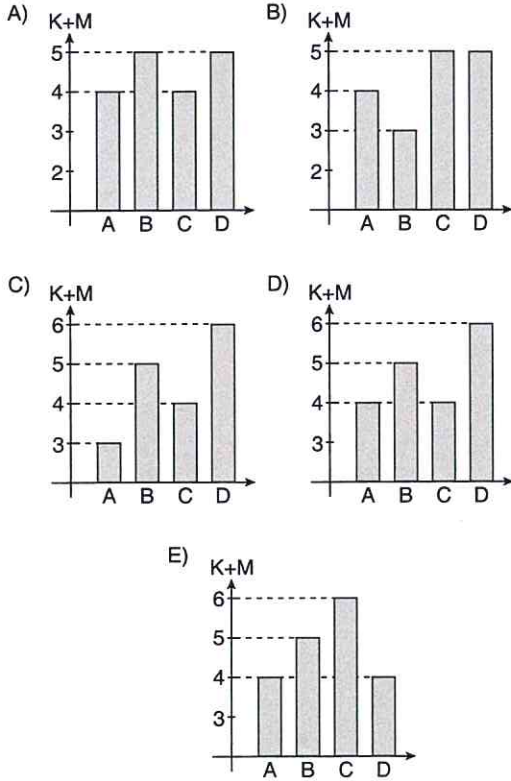
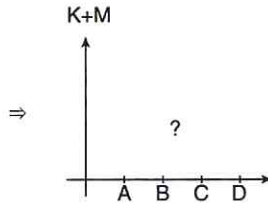
$\Rightarrow P + R + S = ?$

- A) 18 B) 17 C) 16 D) 15 E) 14



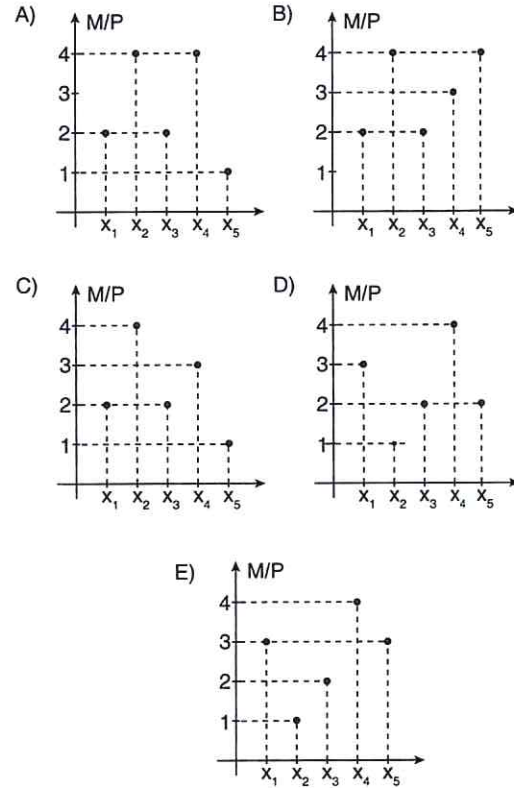
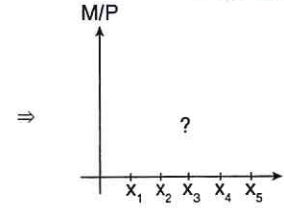
1.

	A	B	C	D
K	3	1	4	2
L	6	4	2	7
M	1	4	0	4

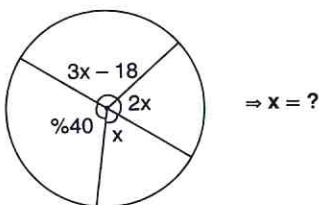


3.

	x_1	x_2	x_3	x_4	x_5
M	6	12	8	6	5
N	2	8	5	6	1
P	3	3	4	2	5
R	4	7	2	5	3

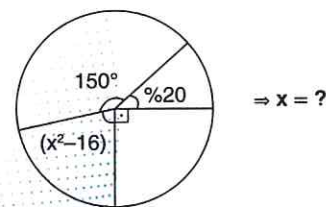


2.

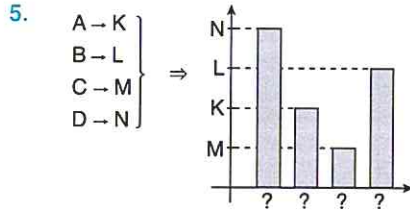


- A) 38 B) 39 C) 40 D) 41 E) 42

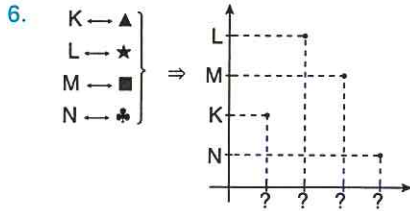
4.



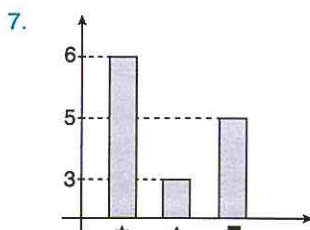
- A) 6 B) 7 C) 8 D) 9 E) 10



- A) $\overline{\quad A \quad B \quad C \quad D \quad}$
 B) $\overline{\quad B \quad A \quad D \quad C \quad}$
 C) $\overline{\quad B \quad D \quad A \quad C \quad}$
 D) $\overline{\quad D \quad A \quad C \quad B \quad}$
 E) $\overline{\quad D \quad C \quad A \quad B \quad}$



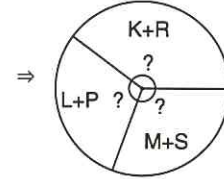
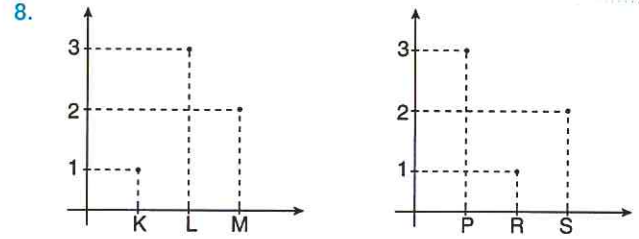
- A) $\overline{\quad \blacktriangle \quad \clubsuit \quad \star \quad \blacksquare \quad}$
 B) $\overline{\quad \blacktriangle \quad \blacksquare \quad \star \quad \clubsuit \quad}$
 C) $\overline{\quad \blacktriangle \quad \clubsuit \quad \blacksquare \quad \star \quad}$
 D) $\overline{\quad \blacktriangle \quad \star \quad \clubsuit \quad \blacksquare \quad}$
 E) $\overline{\quad \blacktriangle \quad \star \quad \blacksquare \quad \clubsuit \quad}$



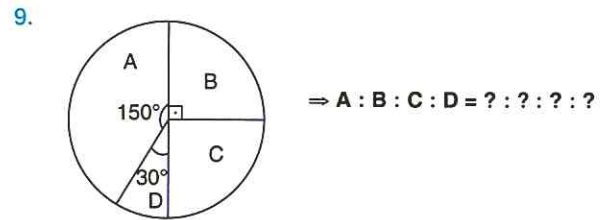
- A) 36 B) 48 C) 54 D) 66 E) 72

$$2\star - 3\blacksquare + 4\blacktriangle = 162$$

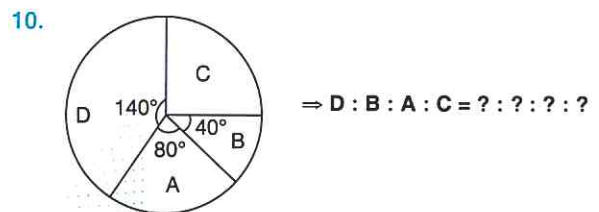
$$\Rightarrow \blacktriangle = ?$$



- A)
 B)
 C)
 D)
 E)



- A) 5 : 4 : 3 : 2 B) 5 : 3 : 3 : 1
 C) 6 : 4 : 3 : 2 D) 6 : 3 : 5 : 1
 E) 5 : 3 : 3 : 2



- A) 4 : 2 : 5 : 7 B) 5 : 2 : 7 : 4
 C) 2 : 4 : 5 : 7 D) 7 : 2 : 4 : 5
 E) 4 : 5 : 2 : 7

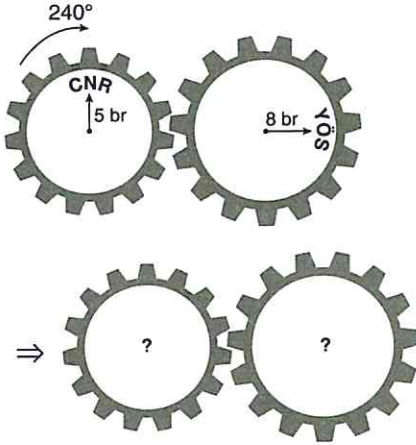


ÇARKLAR WHEELS

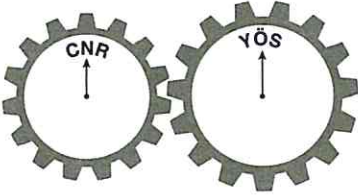
6
TEST
Tests

24
SORU
Questions

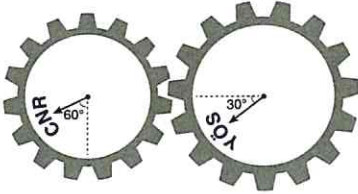
1.



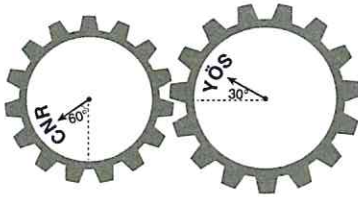
A)



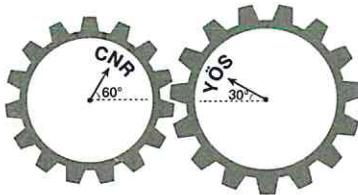
B)



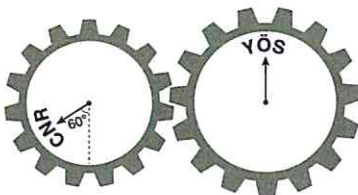
C)



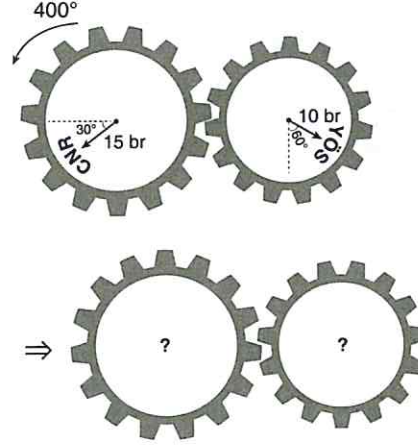
D)



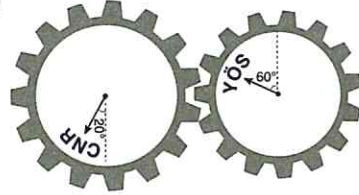
E)



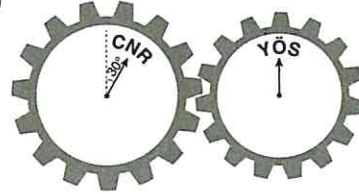
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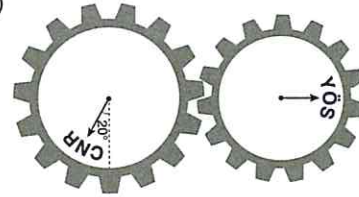
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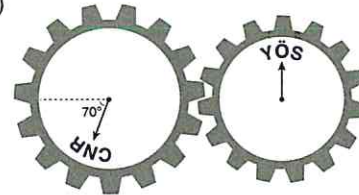
B)



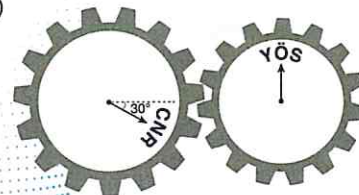
C)



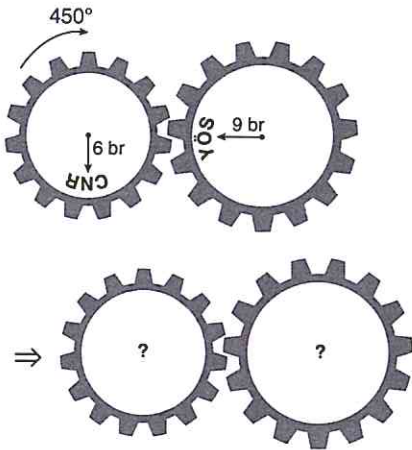
D)



E)

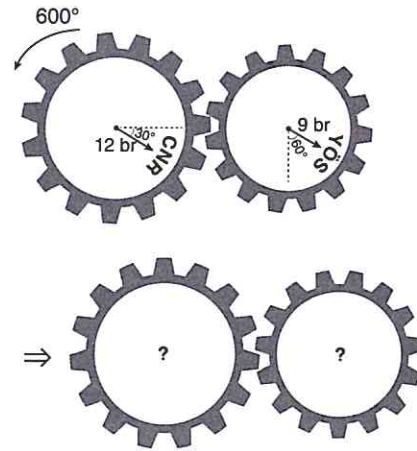


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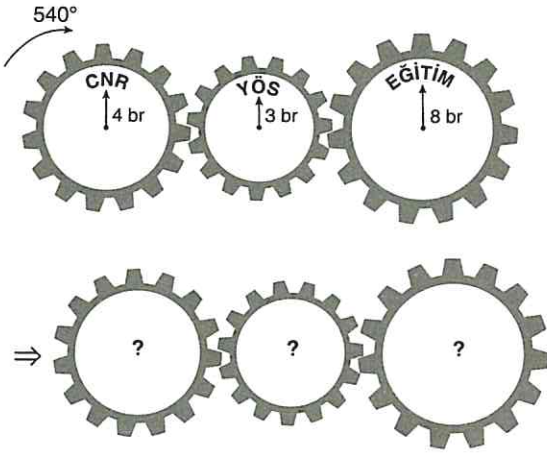
- A)
- B)
- C)
- D)
- E)

4.

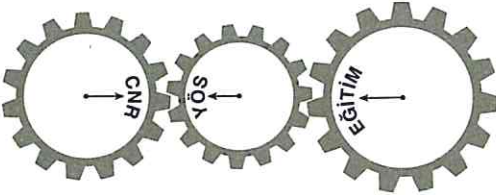


- A)
- B)
- C)
- D)
- E)

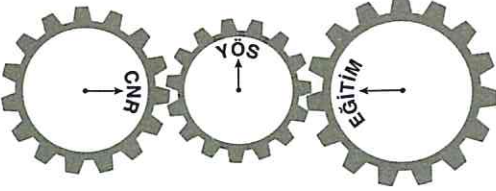
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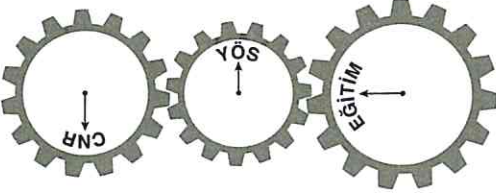
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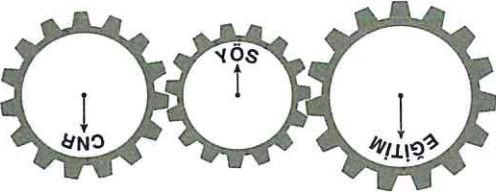
B)



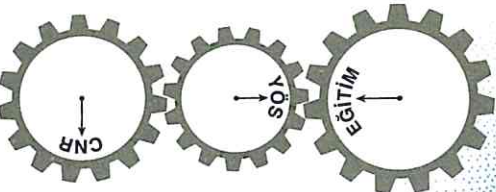
C)



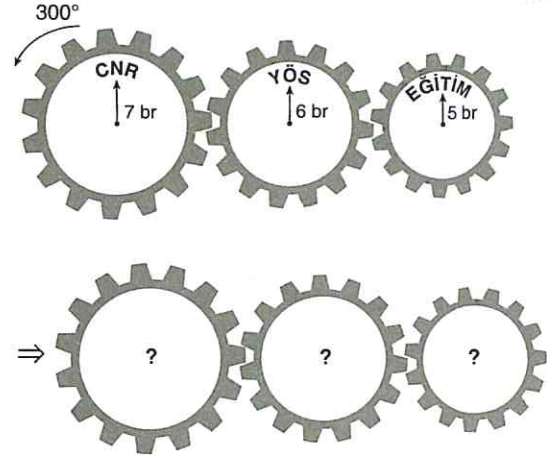
D)



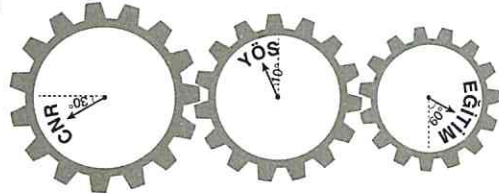
E)



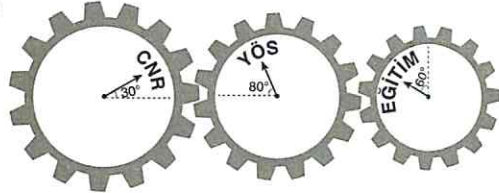
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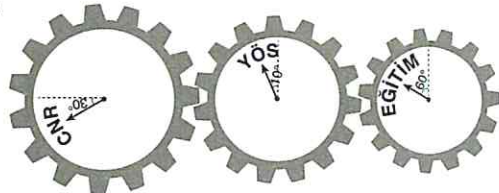
A)



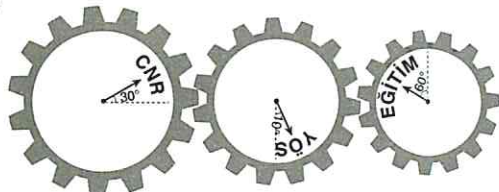
B)



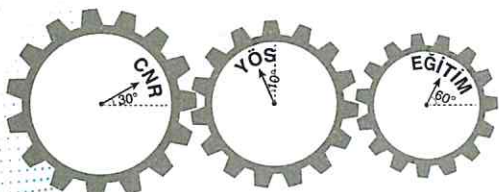
C)



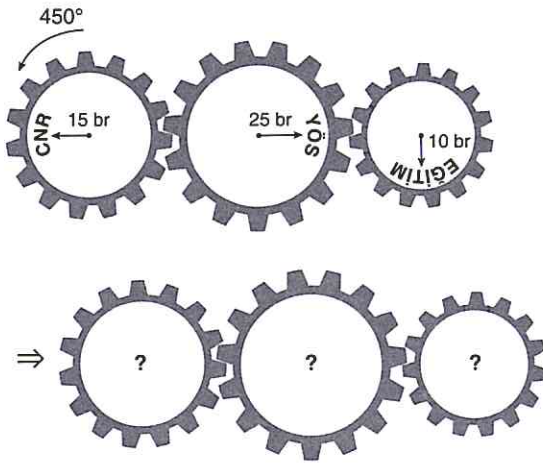
D)



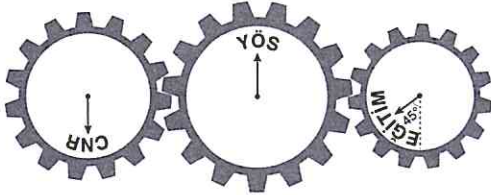
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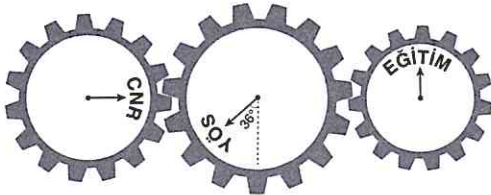
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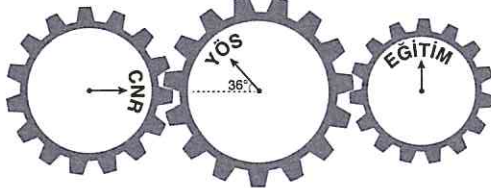
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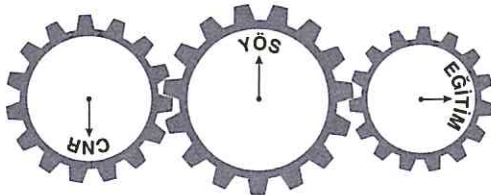
B)



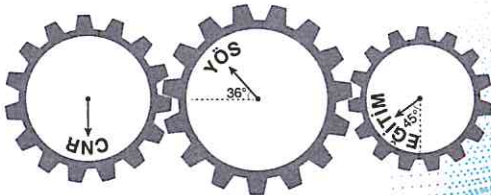
C)



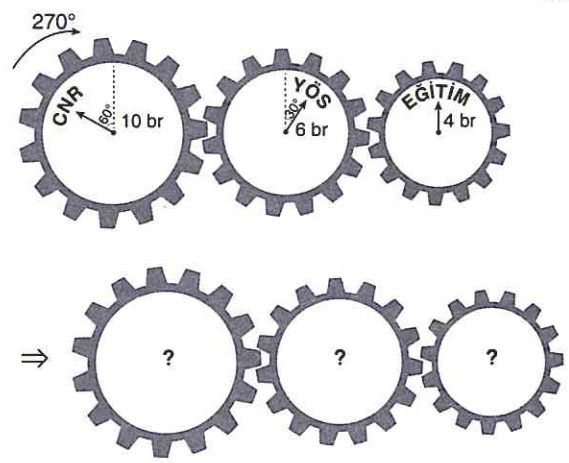
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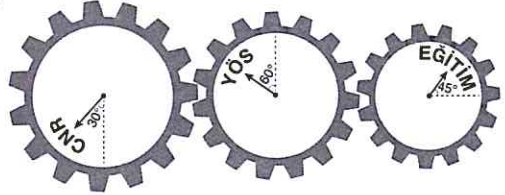
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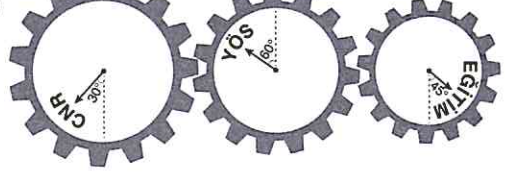
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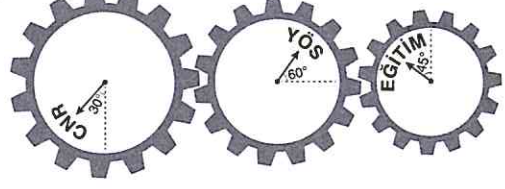
A)



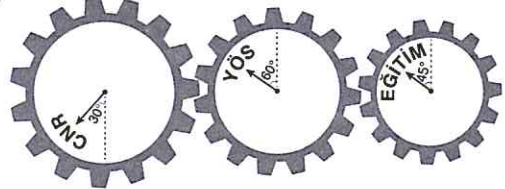
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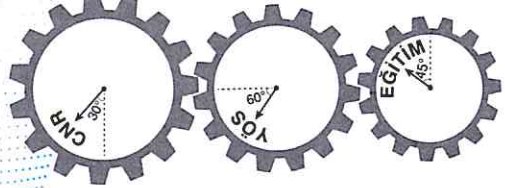
C)



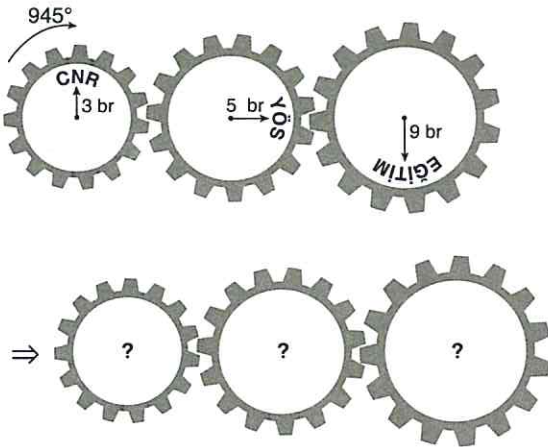
D)



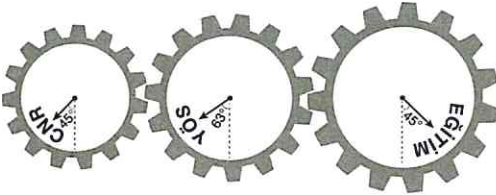
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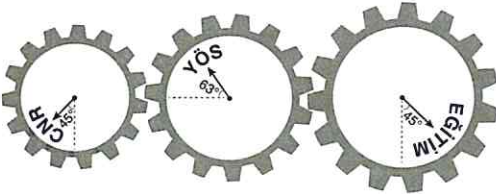
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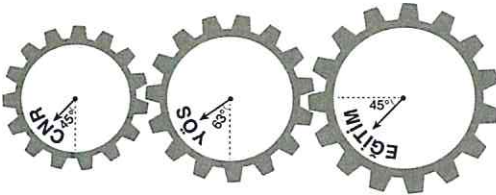
A)



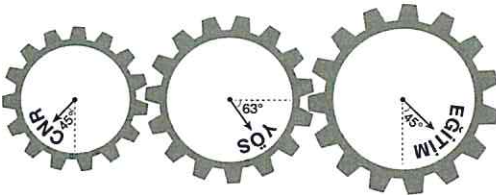
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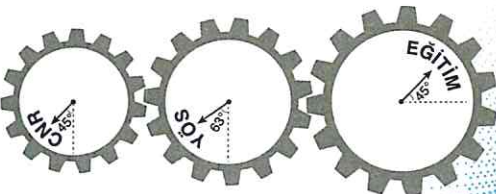
C)



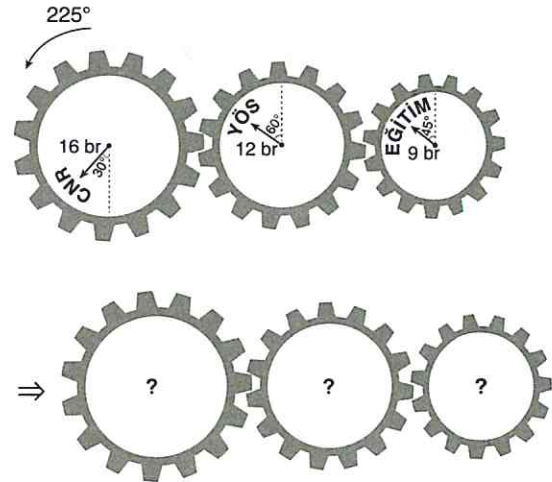
D)



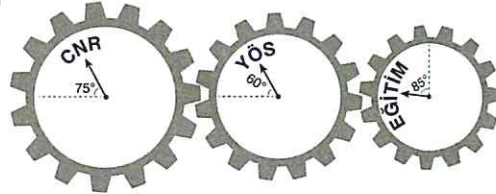
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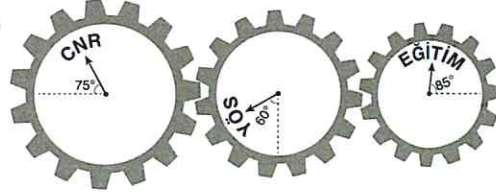
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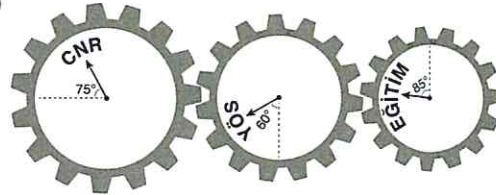
A)



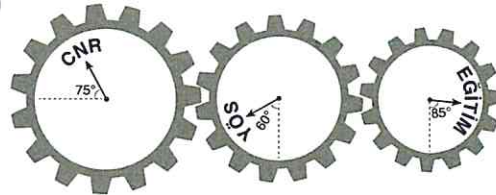
B)



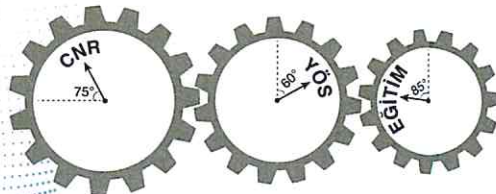
C)

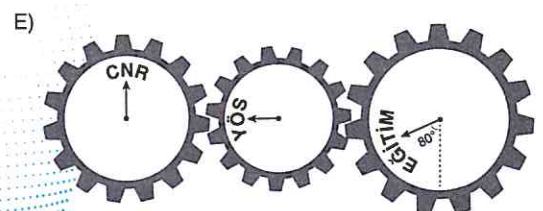
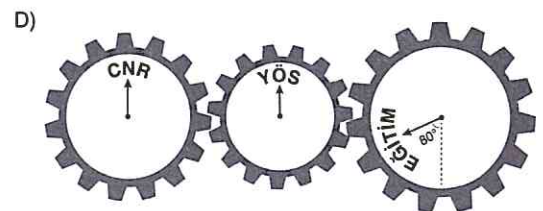
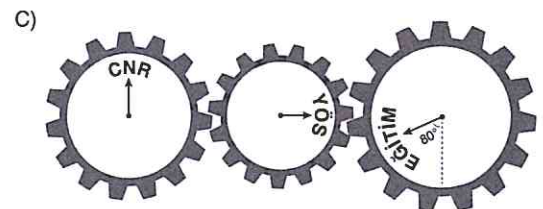
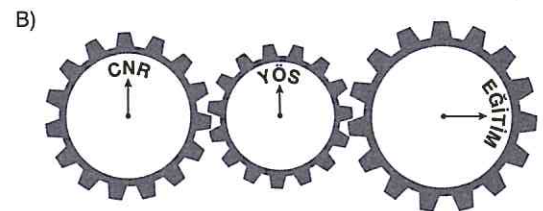
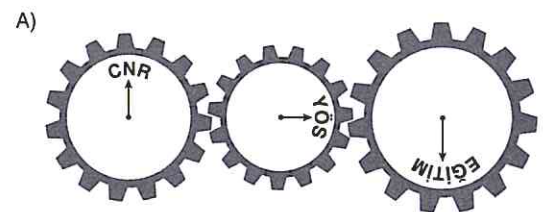
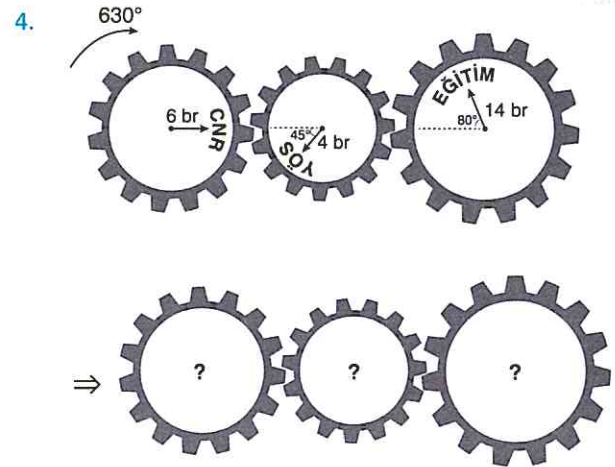
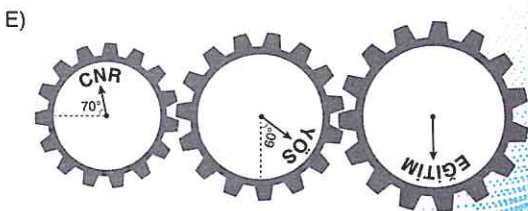
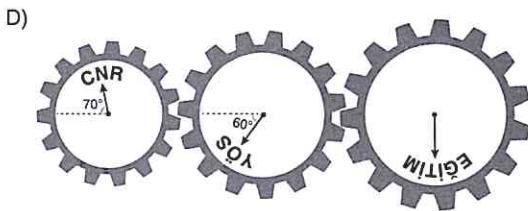
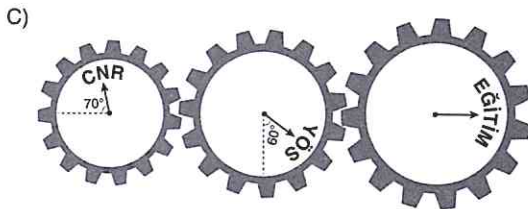
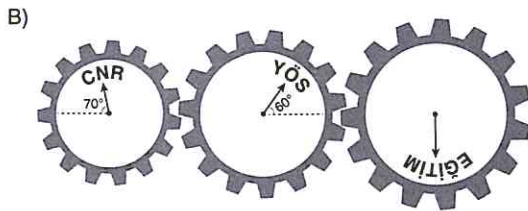
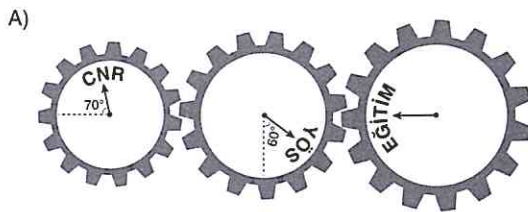
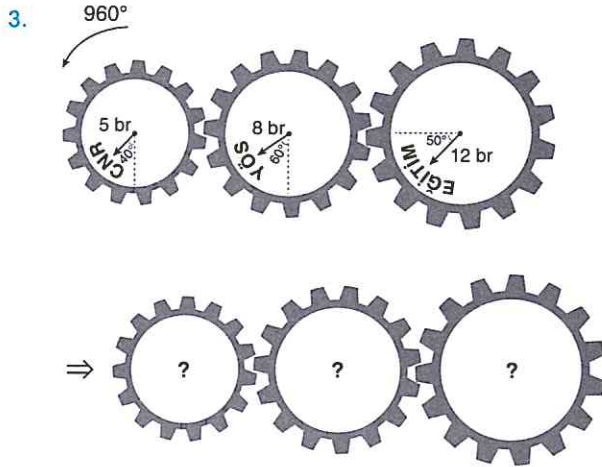


D)

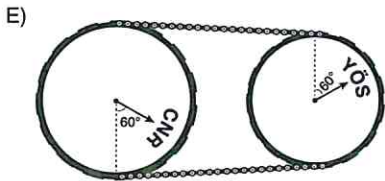
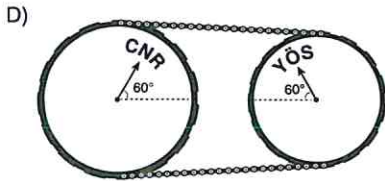
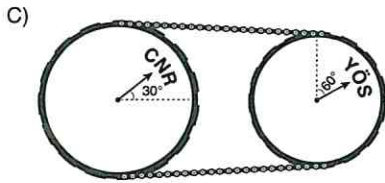
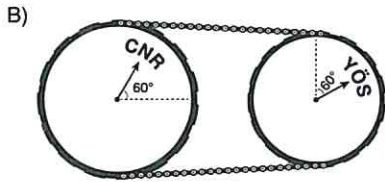
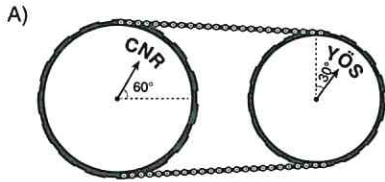
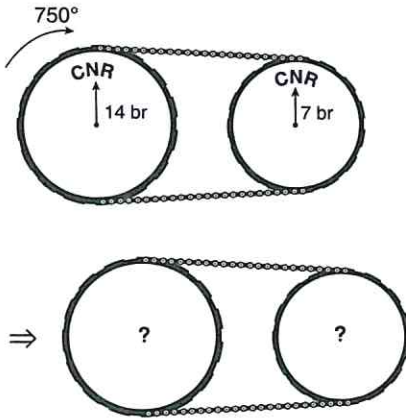


E)

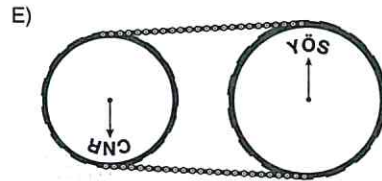
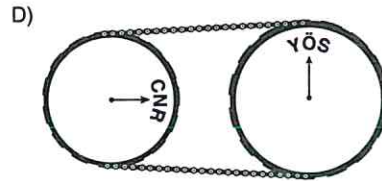
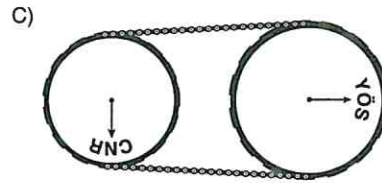
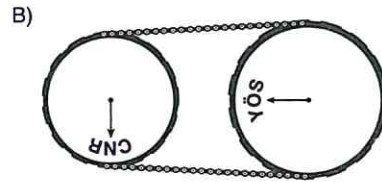
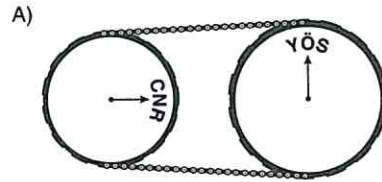
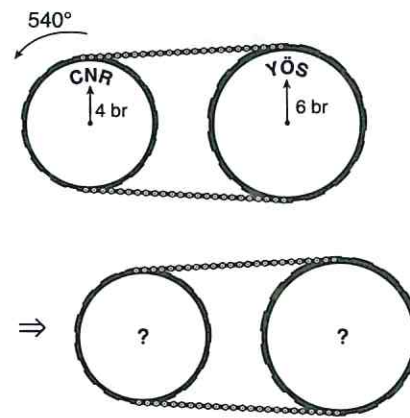




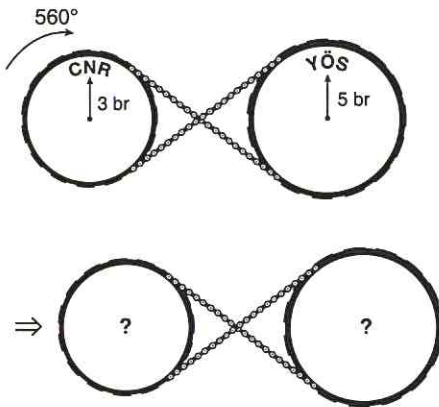
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2.



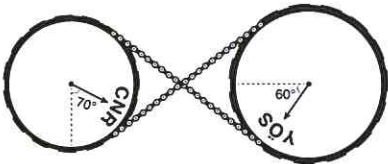
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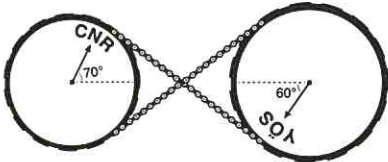
A)



B)



C)



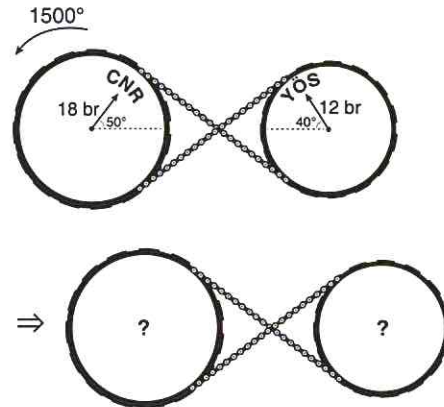
D)



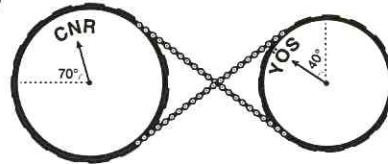
E)



4.



A)



B)



C)



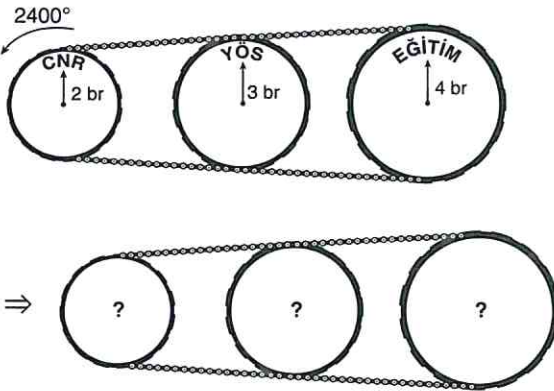
D)



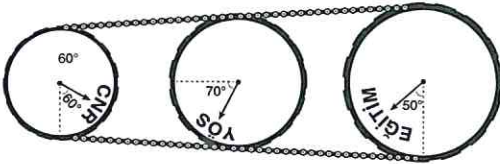
E)



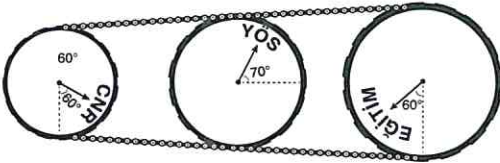
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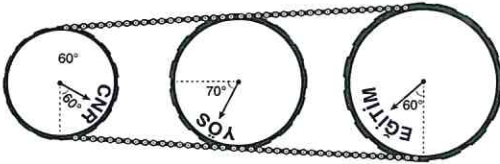
A)



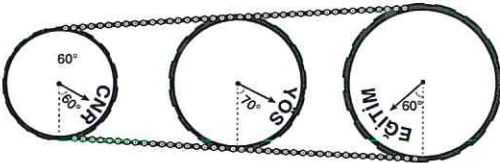
B)



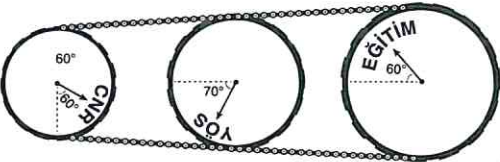
C)



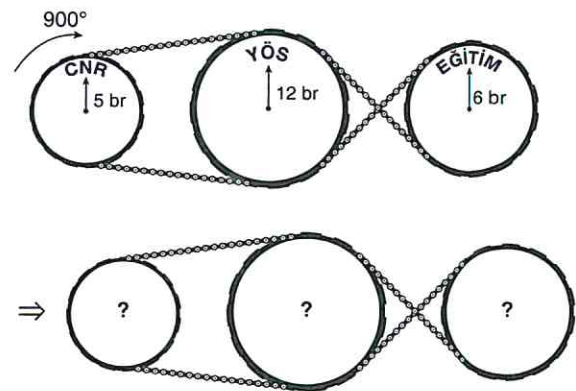
D)



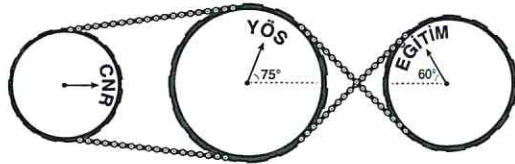
E)



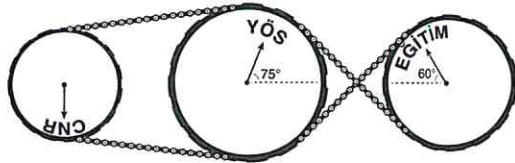
2.



A)



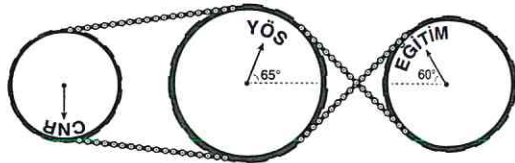
B)



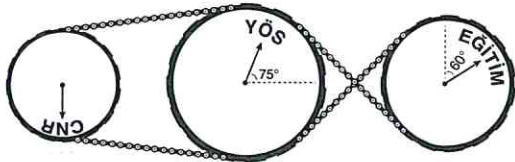
C)



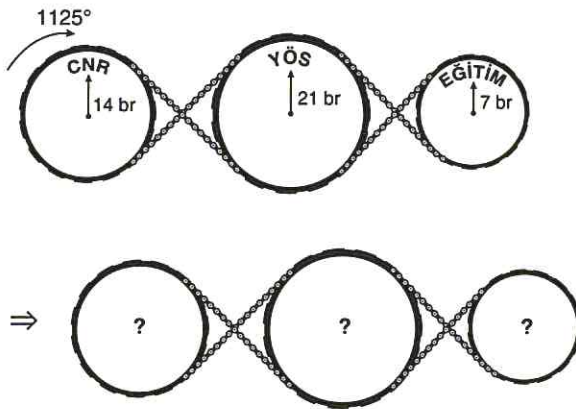
D)



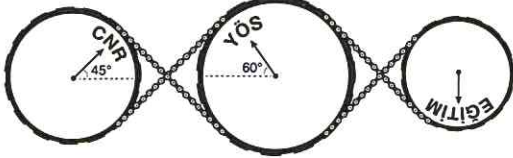
E)



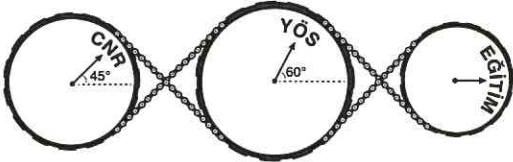
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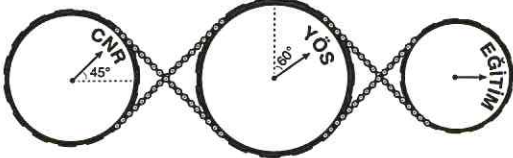
A)



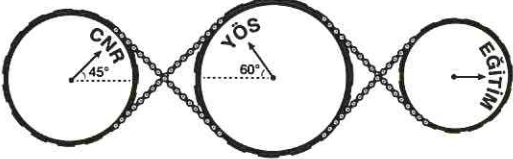
B)



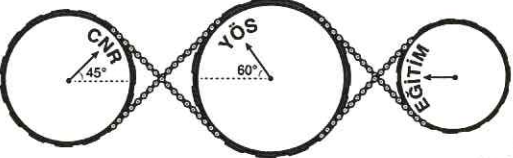
C)



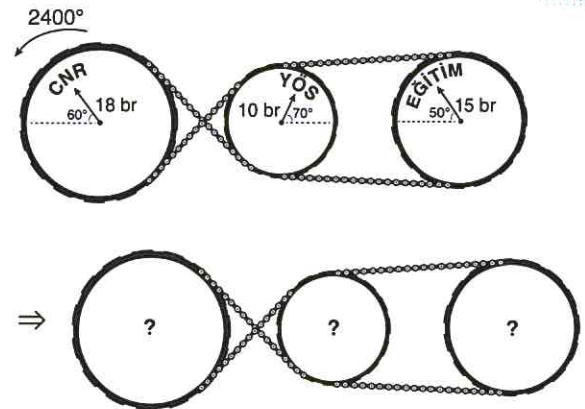
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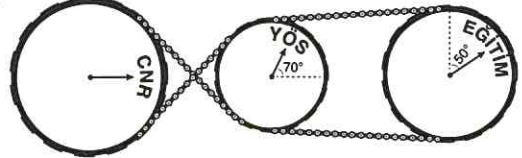
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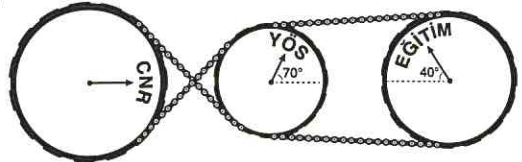
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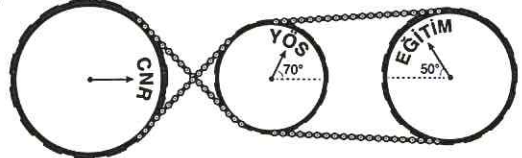
A)



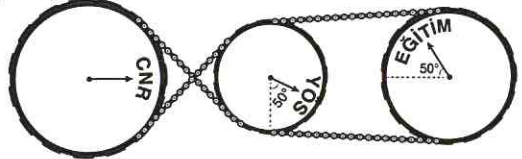
B)



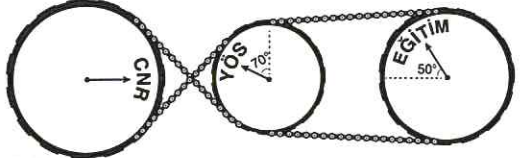
C)



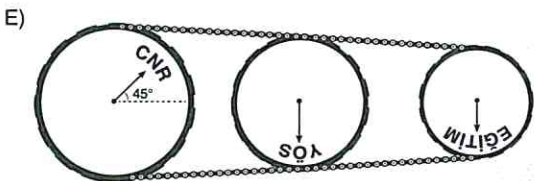
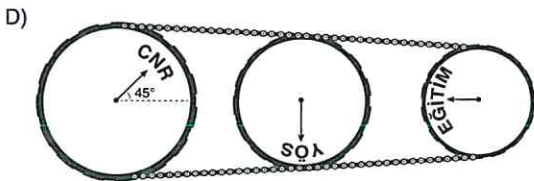
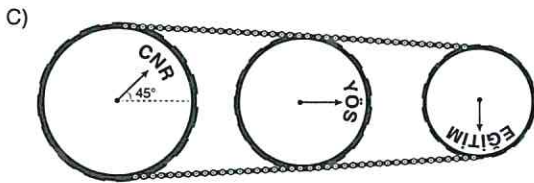
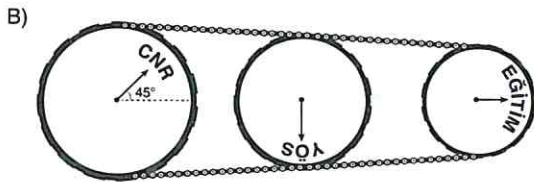
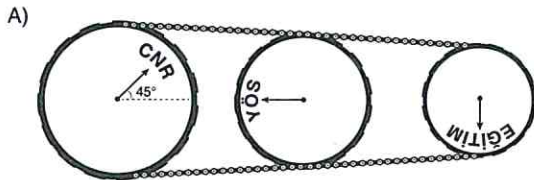
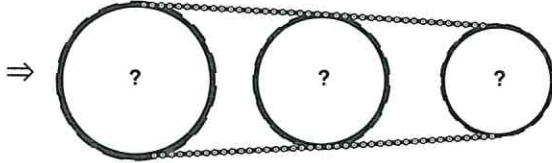
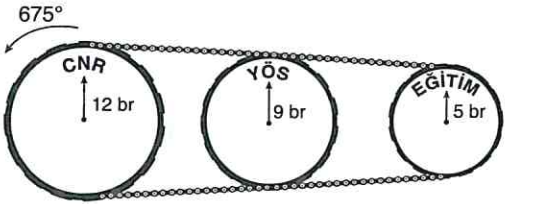
D)



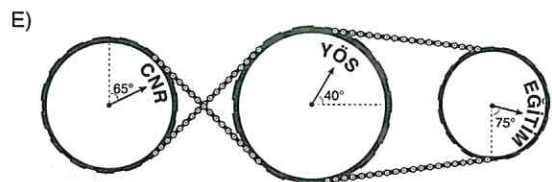
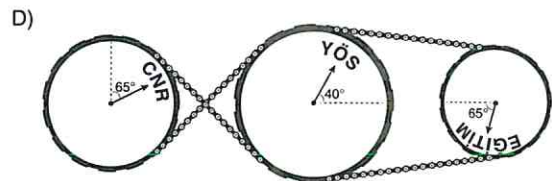
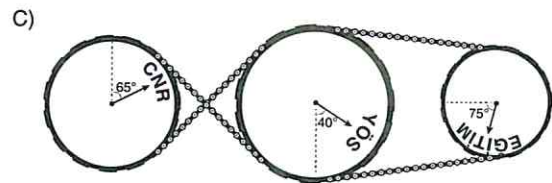
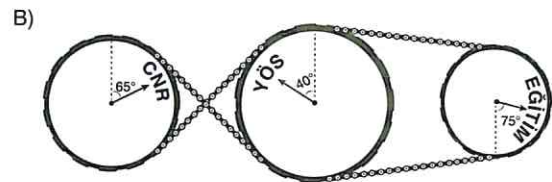
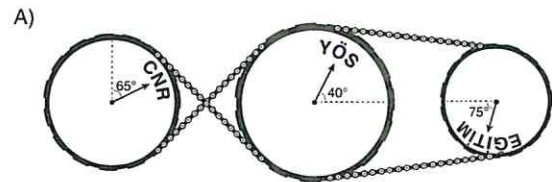
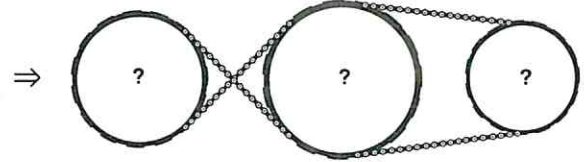
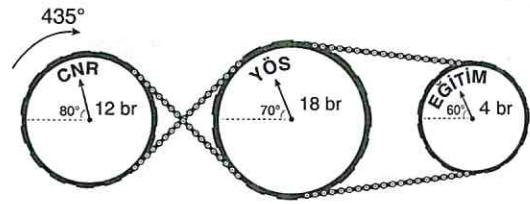
E)



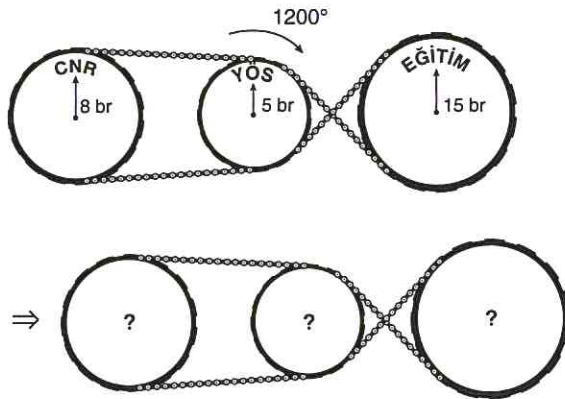
1.



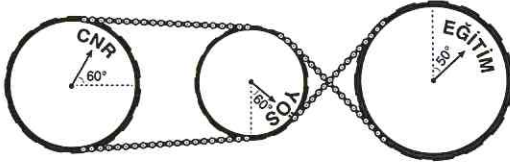
2.



3.



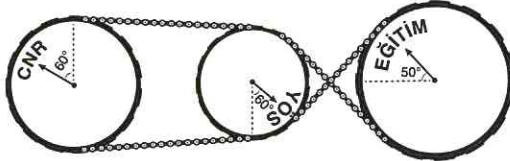
A)



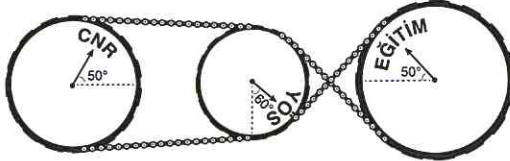
B)



C)



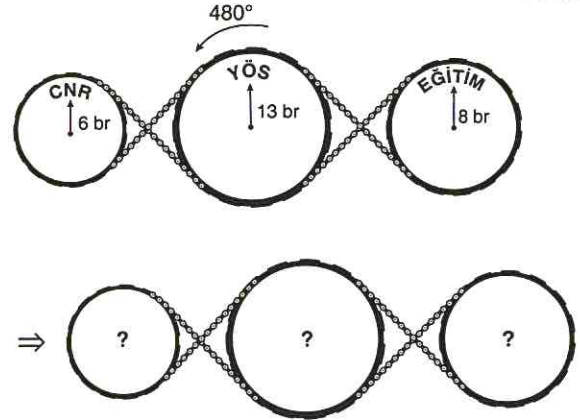
D)



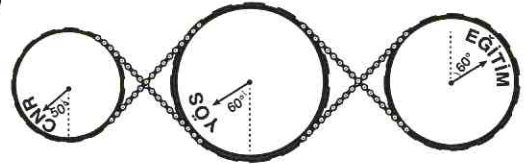
E)



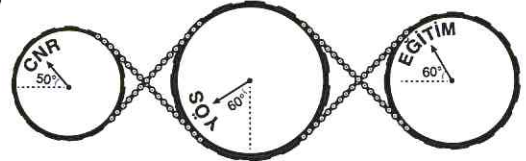
4.



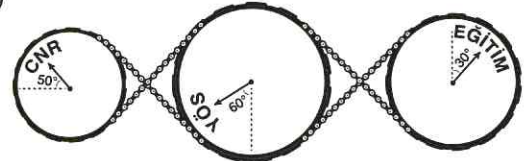
A)



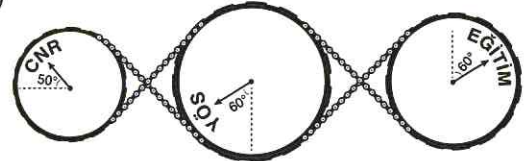
B)



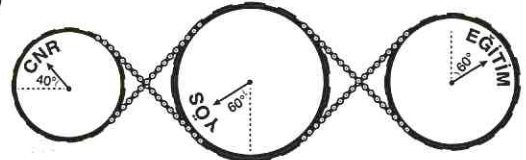
C)



D)



E)



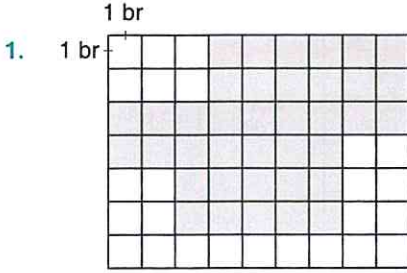


ÇEVRE VE ALAN

PERIMETER AND AREA

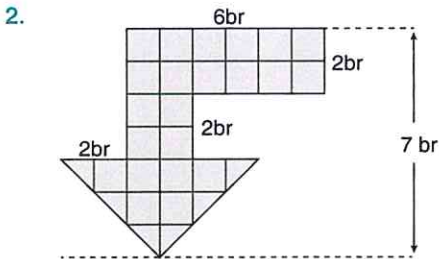
6
TEST
Tests

72
SORU
Questions



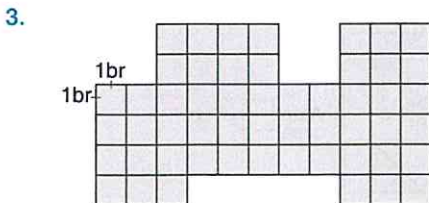
⇒ Taralı alan(shaded area) = ?

- A) 30 B) 33 C) 38 D) 40 E) 48



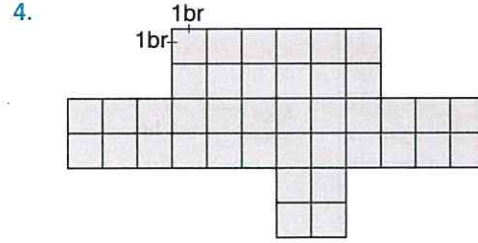
⇒ Taralı alan(shaded area) = ?

- A) 16 B) 18 C) 21 D) 25 E) 27



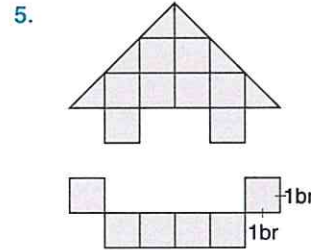
⇒ Taralı alan(shaded area) = ?

- A) 47 B) 50 C) 53 D) 57 E) 63



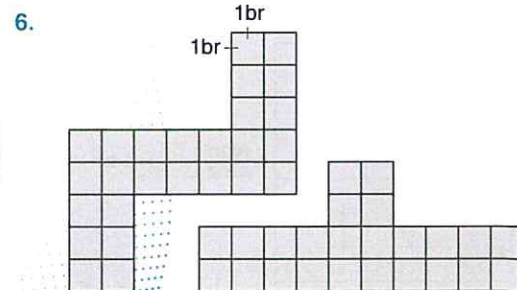
⇒ Taralı alan(shaded area) = ?

- A) 30 B) 35 C) 38 D) 40 E) 42



⇒ Taralı alan(shaded area) = ?

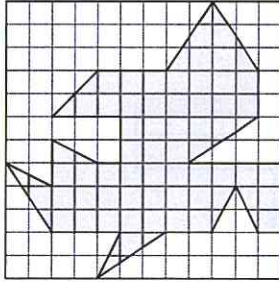
- A) 13 B) 15 C) 17 D) 19 E) 20



⇒ Taralı alan(shaded area) = ?

- A) 46 B) 48 C) 50 D) 54 E) 58

7.

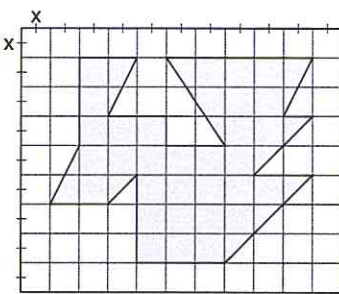


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 62 B) 63 C) 64 D) 65 E) 66

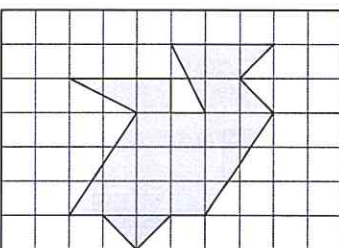
8.



⇒ Taralı alan(shaded area) = ?x²

- A) 35 B) 36 C) 37 D) 38 E) 39

9.

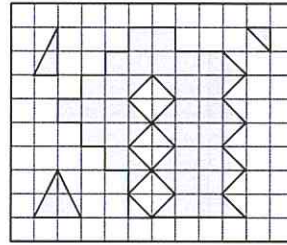


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 17 B) 18 C) 19 D) 20 E) 21

10.

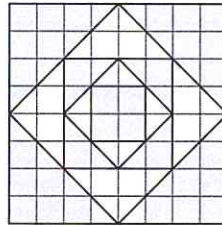


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 40 B) 41 C) 42 D) 43 E) 44

11.

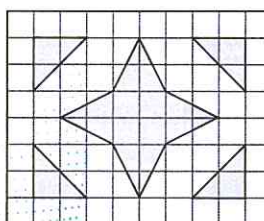


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 52 B) 50 C) 48 D) 46 E) 44

12.

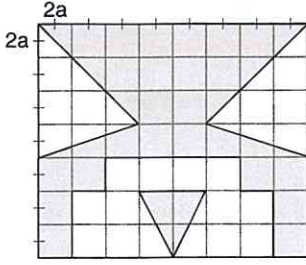


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 14 B) 16 C) 18 D) 20 E) 22

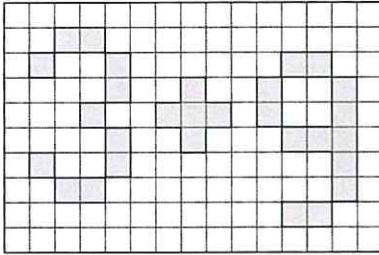
1.



⇒ Taralı alan(shaded area) = ? a^2

- A) 30 B) 60 C) 90 D) 100 E) 120

2.

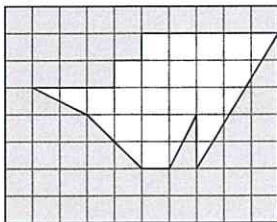


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 12 B) 17 C) 19 D) 24 E) 29

3.

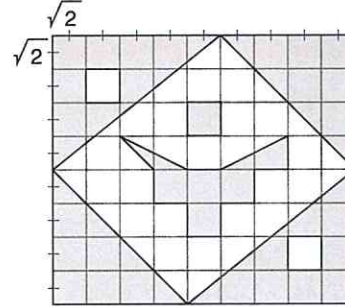


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 54 B) 55 C) 56 D) 57 E) 58

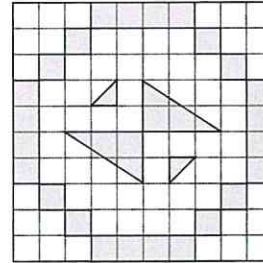
4.



⇒ Taralı alan(shaded area) = ?

- A) 86 B) 83 C) 82 D) 81 E) 78

5.

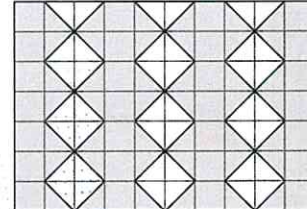


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 27 B) 28 C) 29 D) 30 E) 31

6.

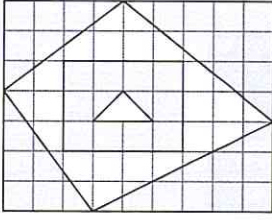


Alan
area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

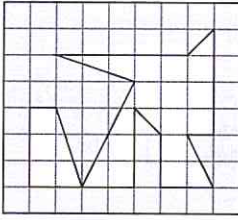
- A) 47 B) 48 C) 49 D) 50 E) 51

7.

Alan
area $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ? a^2

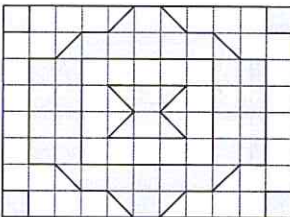
- A) 46 B) 45 C) 44 D) 43 E) 42

8.

Alan
area $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

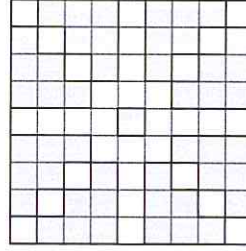
- A) 50 B) 51 C) 52 D) 53 E) 54

9.

Alan
area $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

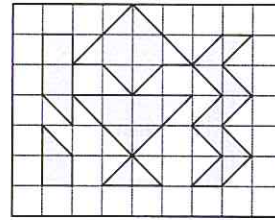
- A) 36 B) 37 C) 38 D) 39 E) 40

10.

Alan
area $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

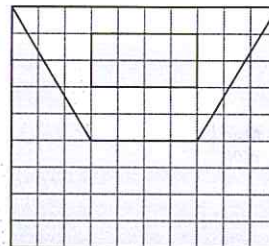
- A) 47 B) 48 C) 49 D) 50 E) 51

11.

Alan
area $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

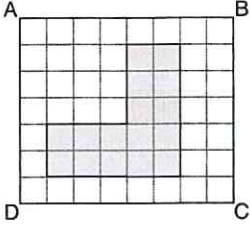
- A) 18 B) 19 C) 20 D) 21 E) 22

12.

Alan
area $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

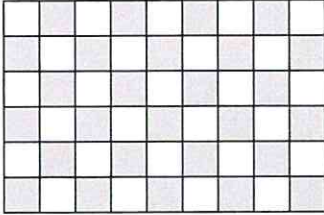
- A) 66 B) 65 C) 64 D) 63 E) 62

1.

Alan $\square = 2 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

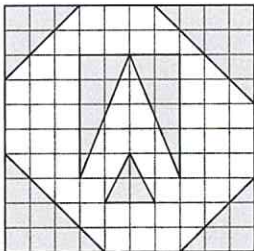
- A) 28 B) 30 C) 32 D) 34 E) 36

2.

Alan $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

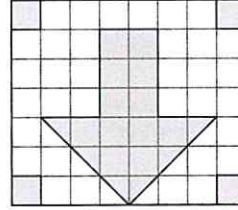
- A)
- $\frac{45}{2}$
- B) 20 C) 27 D) 29 E) 54

3.

Alan $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

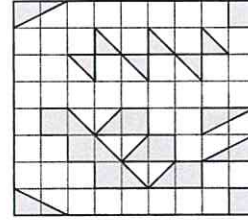
- A) 21 B) 25 C) 28 D) 37 E) 44

4.

Alan $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

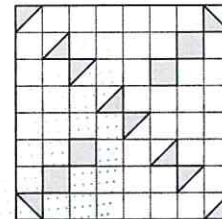
- A) 17 B) 19 C) 21 D) 25 E) 29

5.

Alan $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

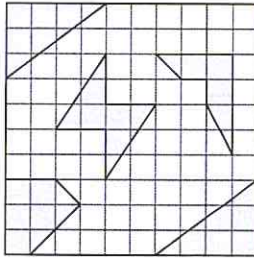
- A) 16 B) 17 C) 18 D) 19 E) 20

6.

Alan $\square = 1 \text{ br}^2$ $\Rightarrow$ Taralı alan(shaded area) = ?

- A) 7 B) 8 C) 9 D) 11 E) 12

7.

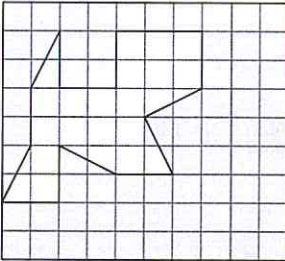


Alan area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 27 B) 28 C) 29 D) 30 E) 31

8.

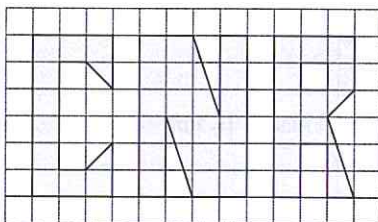


Alan area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 65 B) 66 C) 67 D) 68 E) 69

9.

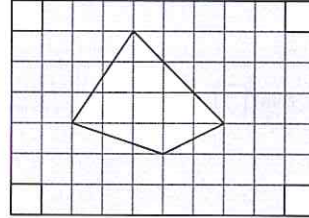


Alan area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 45 B) 44 C) 43 D) 42 E) 41

10.

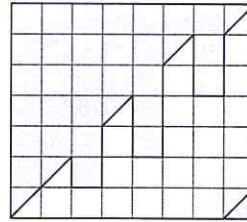


Alan area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 56 B) 57 C) 58 D) 59 E) 60

11.

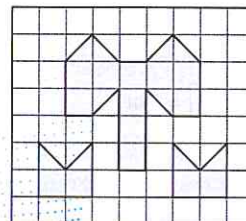


Alan area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 30 B) 31 C) 32 D) 33 E) 34

12.

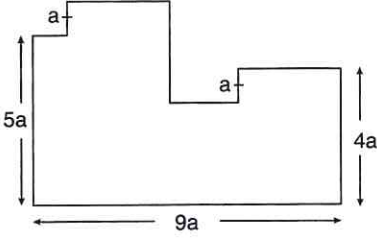


Alan area $\square = 1 \text{ br}^2$

⇒ Taralı alan(shaded area) = ?

- A) 16 B) 17 C) 18 D) 19 E) 20

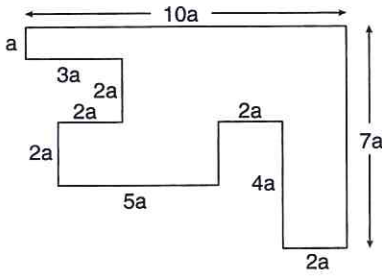
1.



⇒ Çevre (perimeter) = ?a

- A) 29 B) 30 C) 31 D) 32 E) 33

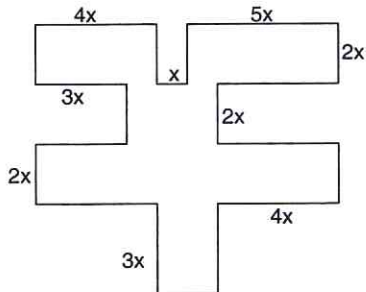
2.



⇒ Çevre (perimeter) = ?a

- A) 42 B) 41 C) 40 D) 39 E) 38

3.

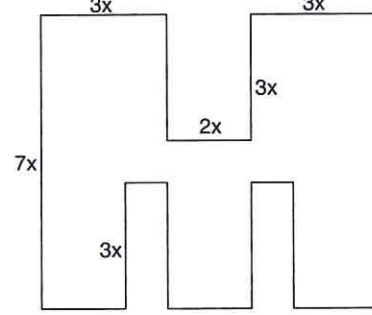


⇒ Çevre (perimeter) = ?x

- A) 52 B) 53 C) 54 D) 55

E) 56

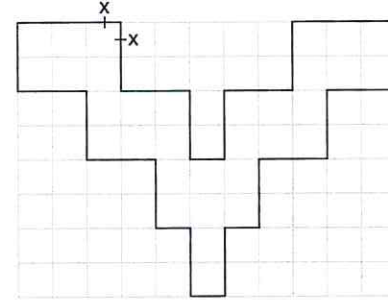
4.



⇒ Çevre (perimeter) = ?x

- A) 46 B) 47 C) 48 D) 49 E) 50

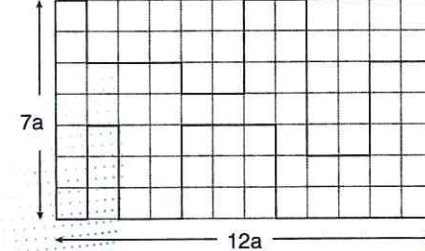
5.



⇒ Çevre (perimeter) = ?x

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

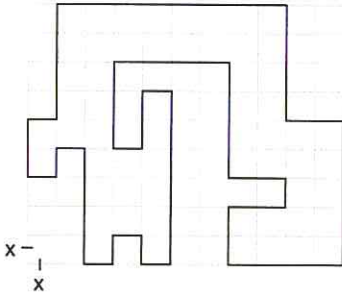
6.



⇒ Çevre (perimeter) = ?a

- A) 65 B) 64 C) 63 D) 62 E) 61

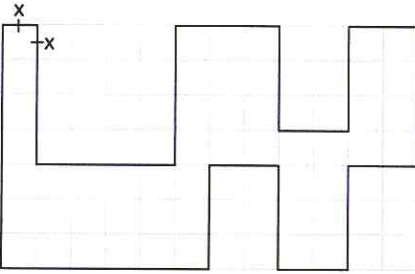
7.



⇒ Çevre (perimeter) = ?x

- A) 70 B) 71 C) 72 D) 73 E) 74

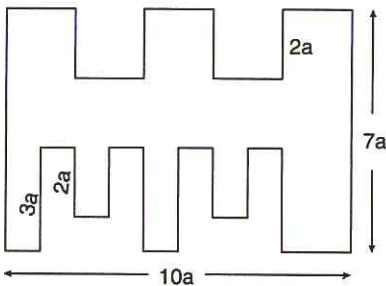
8.



⇒ Çevre (perimeter) = ?x

- A) 56 B) 57 C) 58 D) 59 E) 60

9.

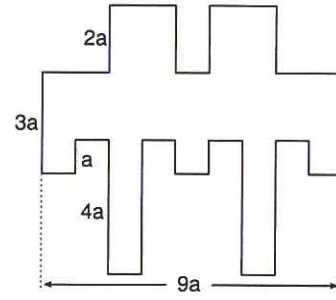


⇒ Çevre (perimeter) = ?a

- A) 63 B) 62 C) 61 D) 60

E) 59

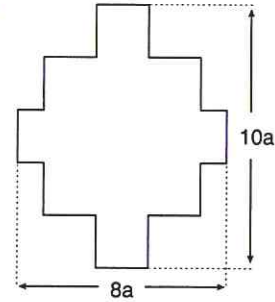
10.



⇒ Çevre (perimeter) = ?a

- A) 50 B) 51 C) 52 D) 53 E) 54

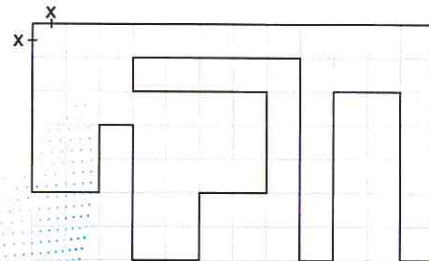
11.



⇒ Çevre (perimeter) = ?a

- A) 34 B) 36 C) 38 D) 40 E) 42

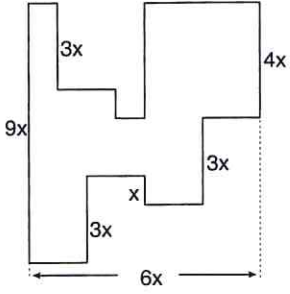
12.



⇒ Çevre (perimeter) = ?x

- A) 68 B) 69 C) 70 D) 71 E) 72

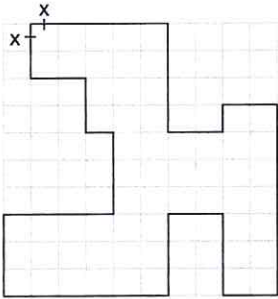
1.



⇒ Çevre (perimeter) = ?x

- A) 40 B) 41 C) 42 D) 43 E) 44

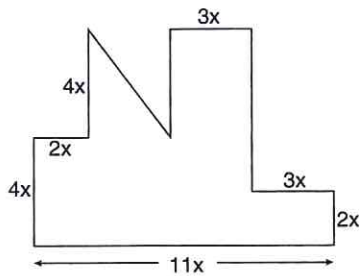
2.



⇒ Çevre (perimeter) = ?x

- A) 51 B) 52 C) 53 D) 54 E) 55

3.

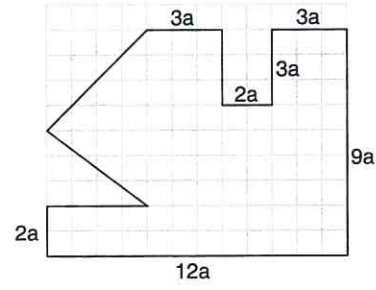


⇒ Çevre (perimeter) = ?x

- A) 41 B) 42 C) 43 D) 44

E) 45

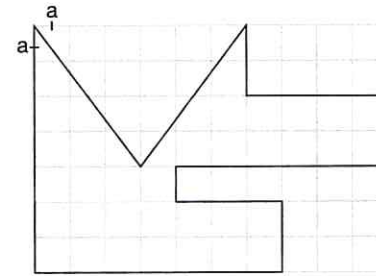
4.



⇒ Çevre (perimeter) = ?a

- A) $44 + 4\sqrt{2}$ B) $46 + 4\sqrt{2}$ C) $43 + 5\sqrt{2}$
D) $46 + 3\sqrt{2}$ E) $44 + 3\sqrt{2}$

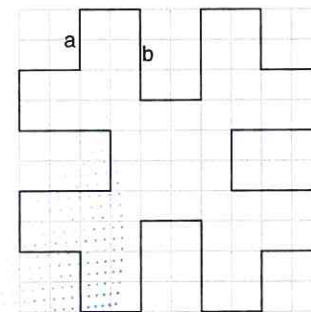
5.



⇒ Çevre (perimeter) = ?a

- A) 42 B) 43 C) 44 D) 45 E) 46

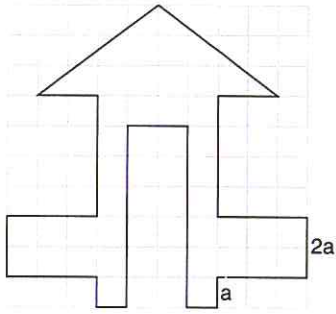
6.



⇒ Çevre (perimeter) = ?a

- A) 64 B) 48 C) 42 D) 38 E) 32

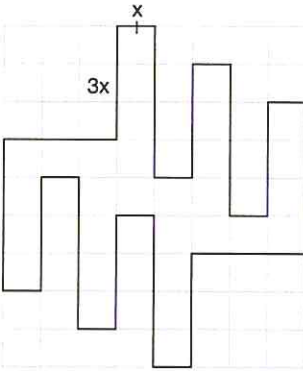
7.



⇒ Çevre (perimeter) = ?a

- A) 56 B) 54 C) 52 D) 50 E) 48

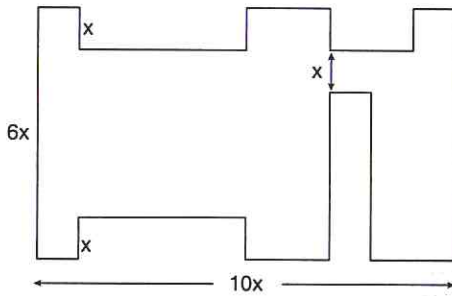
8.



⇒ Çevre (perimeter) = ?x

- A) 64 B) 62 C) 60 D) 58 E) 54

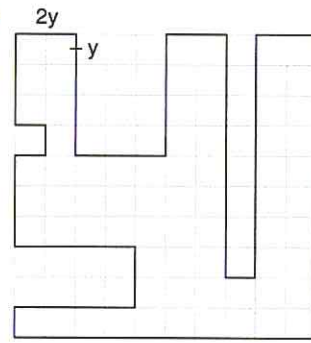
9.



⇒ Çevre (perimeter) = ?x

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

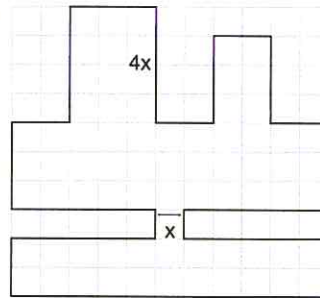
10.



⇒ Çevre (perimeter) = ?y

- A) 73 B) 74 C) 75 D) 76 E) 77

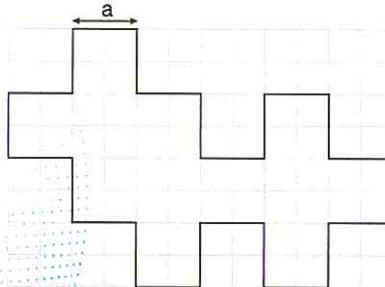
11.



⇒ Çevre (perimeter) = ?x

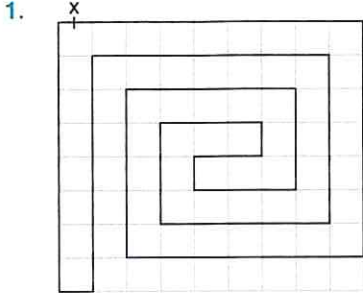
- A) 64 B) 66 C) 68 D) 70 E) 72

12.



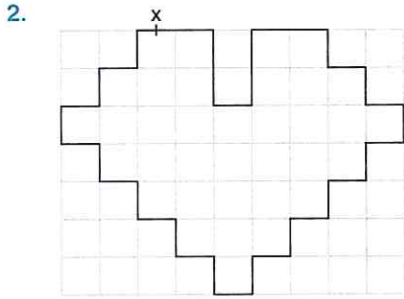
⇒ Çevre (perimeter) = ?a

- A) 24 B) 36 C) 48 D) 60 E) 64



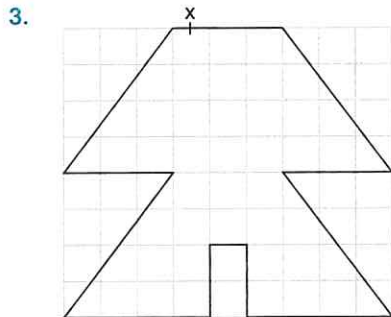
⇒ Çevre (primeter) = ?x

- A) 74 B) 76 C) 78 D) 80 E) 82



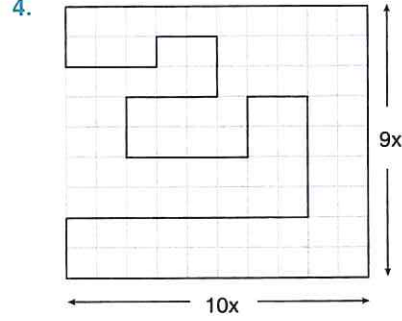
⇒ Çevre (primeter) = ?x

- A) 36 B) 38 C) 40 D) 42 E) 44



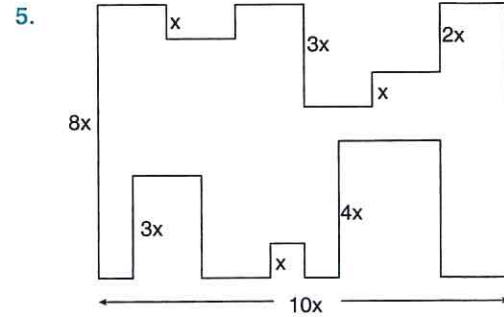
⇒ Çevre (primeter) = ?x

- A) 44 B) 42 C) 40 D) 38 E) 36



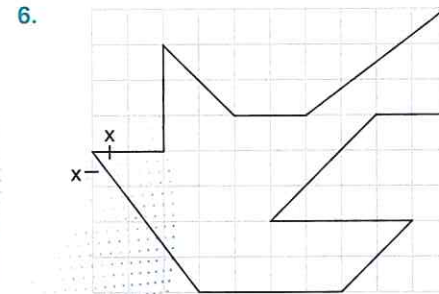
⇒ Çevre (primeter) = ?x

- A) 60 B) 62 C) 64 D) 66 E) 68



⇒ Çevre (primeter) = ?x

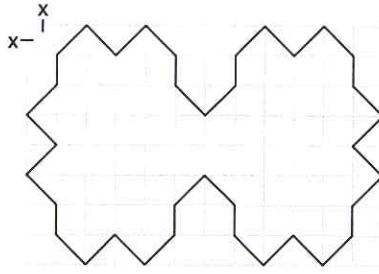
- A) 58 B) 60 C) 62 D) 64 E) 66



⇒ Çevre (primeter) = ?x

- A) $30 + 7\sqrt{2}$ B) $32 + 6\sqrt{2}$ C) $30 + 6\sqrt{2}$
D) $32 + 7\sqrt{2}$ E) $30 + 5\sqrt{2}$

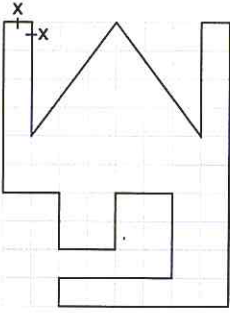
7.



⇒ Çevre (perimeter) = ?

- A) $8 + 24\sqrt{2}$ B) $8 + 26\sqrt{2}$ C) $8 + 28\sqrt{2}$
 D) $8 + 30\sqrt{2}$ E) $8 + 32\sqrt{2}$

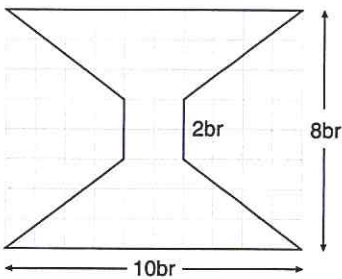
8.



⇒ Çevre (perimeter) = ?x

- A) 68 B) 66 C) 64 D) 62 E) 60

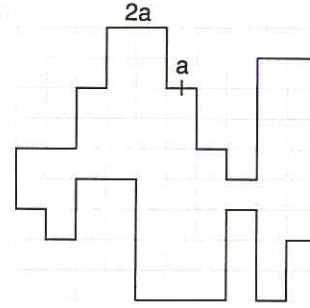
9.



⇒ Çevre (perimeter) = ?

- A) 42 B) 44 C) 46 D) 48 E) 50

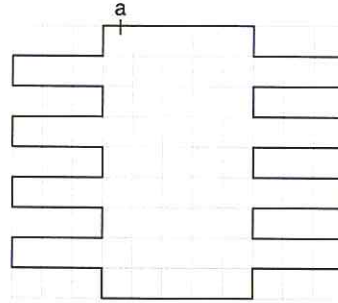
10.



⇒ Çevre (perimeter) = ?a

- A) 52 B) 54 C) 56 D) 58 E) 60

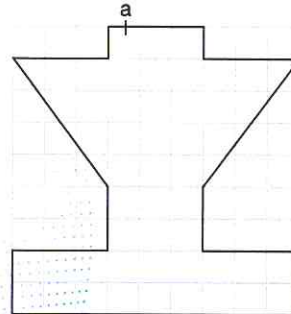
11.



⇒ Çevre (perimeter) = ?a

- A) 68 B) 70 C) 72 D) 74 E) 76

12.



⇒ Çevre (perimeter) = ?a

- A) 44 B) 46 C) 48 D) 50 E) 52