

سوالات یوس ۲۰۱۵

دانشگاه استانبول



Istanbul University

INTERNATIONAL STUDENTS' EXAM

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☎ ۰۲۱۹۱۳۰۵۹۰۵

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A

YURTDIŞINDAN VEYA
YABANCI UYRUKLU ÖĞRENCİ SINAVI
TEMEL ÖĞRENME BECERİLERİ TESTİ

EXAMINATION FOR FOREIGN OR OVERSEAS STUDENTS
BASIC LEARNING SKILLS TEST

16.05.2015

ADI / NAME :

SOYADI / SURNAME :

ADAY NO / APPLICANT NUMBER :

SINAV SALON NO / EXAM ROOM NUMBER :

Adınızı, soyadınızı, aday numarası ve sınav salon numaralarınızı yukarıya yazınız.

Write your name, surname, applicant number and exam room numbers in the appropriate places above.

GENEL AÇIKLAMA
(GENERAL INSTRUCTIONS)

- I. Bu sınavdaki soruların nasıl cevaplanacağı, testlerin başında açıklanmıştır. Soruları cevaplamaya başlamadan önce bu açıklamaları dikkatle okuyunuz.
- II. Bu testlerdeki her sorunun bir tek doğru cevabı vardır. Bir soru için birden çok cevap yeri işaretlenmişse, o soru yanlış cevaplanmış sayılacaktır.
- III. Cevaplarınızı koyu siyah ve yumuşak bir kurşun kalemle işaretleyiniz. İşaretlerinizi cevap yerinin dışına taşırmayınız. Tükenmez kalem veya dolma kalem kullanmayınız.
- IV. Cevap kâğıdınızı buruşturmayınız, katlamayınız ve üzerine gereksiz hiçbir işaret koymayınız.
- V. Değiştirmek istediğiniz bir cevabı, yumuşak bir silgiyle, cevap kâğıdını örselemeden, temizce siliniz ve yeni cevabınızı işaretlemeyi unutmayınız.
- VI. Bu testler puanlanırken, doğru cevaplarınızın sayısından yanlış cevaplarınızın sayısının dörtte biri düşülecek ve kalan sayı ham puanınız olacaktır. Bu nedenle, hakkında hiçbir fikriniz olmayan soruları boş bırakınız. Ancak soruda verilen seçeneklerden birkaçını eleyebiliyorsanız, kalanlar arasından doğru cevabı kestirmeye çalışmanız yararınıza olabilir.
- VII. Sınavda uyulacak diğer kurallar bu kitapçığın arka kapağında belirtilmiştir.
- I. The exam instructions appear at the beginning of the tests. Please read these carefully before beginning.
- II. In these tests there is only one correct answer for each question. If more than one alternative is marked, that answer will automatically be considered wrong.
- III. You should use a soft, black pencil to mark the answer sheet. Completely fill in the circle for the answer you have chosen, but make sure your mark does not go beyond the borders of the circle. Do not use any kind of pen.
- IV. Keep the answer sheet flat and do not fold it. Do not make any unnecessary marks on it.
- V. If you wish to change an answer, carefully erase it completely with a very soft eraser. Do not forget to mark your new answer.
- VI. In the scoring of the tests, for every four incorrect answers, one correct answer will be deducted; the remainder will be the raw score. With this in mind, do not guess at the answers. However, in cases where you are sure that certain alternatives can be eliminated, you may want to choose what seems the likeliest of the remainders.
- VII. The other regulations concerning the administration of the tests will be found at the back of the booklet.

Bu testlerin her hakkı saklıdır. Hangi amaçla olursa olsun, testlerin tamamının veya bir kısmının İstanbul Üniversitesi'nin yazılı izni olmadan kopya edilmesi, fotoğrafının çekilmesi, herhangi bir yolla çoğaltılması, yayımlanması ya da kullanılması yasaktır. Bu yasağa uymayanlar gerekli cezai sorumluluğu ve testlerin hazırlanmasındaki mali külfeti peşinen kabullenmiş sayılır.



Sınav Merkezleri ve Saatleri (Yerel Saatler)*

Almanya (Berlin, Köln, Münih)	14:00	İran (Tahran)	16:30	Moldova (Gagavuz Bölgesi)	15:00
Amerika Birleşik Devletleri (New York)	08:00	İsviçre (Bern)	14:00	Pakistan (Lahor)	17:00
Arnavutluk (Tiran)	14:00	Kazakistan (Almatı)	18:00	Polonya (Varşova)	14:00
Azerbaycan (Bakü)	17:00	Kıbrıs (Lefkoşa)	15:00	Romanya (Köstence)	15:00
Bosna Hersek (Saraybosna)	14:00	Kırgızistan (Bişkek)	18:00	Sudan (Hartum)	15:00
Bulgaristan (Sofya)	15:00	Kosova (Pristine)	14:00	Suudi Arabistan (Cidde, Riyad)	15:00
Cezayir (Cezayir)	13:00	Lübnan (Beyrut)	15:00	Tataristan (Kazan)	15:00
Fas (Rabat)	13:00	Macaristan (Budapeşte)	14:00	Tunus (Tunus)	13:00
Fransa (Paris)	14:00	Makedonya (Üsküp)	14:00	Türkiye	15:00
Güney Afrika Cumhuriyeti (Johannesburg)	14:00	Malezya (Kuala Lumpur)	20:00	Ürdün (Amman)	15:00
Gürcistan (Tiflis)	16:00	Mısır (Kahire)	14:00	Yunanistan (Atina)	15:00
Irak (Erbil)	15:00				

* Sınav saatleri sınav merkezlerinin yerel saatleridir. İÜYÖS 2015 sınavı tüm sınav merkezlerinde aynı anda başlar.

Exam Centers and Times (Local Times)*

Albania (Tiran)	14:00	Iran (Tahran)	16:30	Pakistan (Lahor)	17:00
Algeria (Cezayir)	13:00	Iraq (Erbil)	15:00	Poland (Varşova)	14:00
Azerbaijan (Bakü)	17:00	Jordan (Amman)	15:00	Republic of South Africa (Johannesburg)	14:00
Bosnia and Herzegovina (Saraybosna)	14:00	Kazakhstan (Almatı)	18:00	Rumania (Köstence)	15:00
Bulgaria (Sofya)	15:00	Kirghizistan (Bişkek)	18:00	Saudi Arabia (Cidde, Riyad)	15:00
Cyprus (Lefkoşa)	15:00	Kosovo (Pristine)	14:00	Sudan (Hartum)	15:00
Egypt (Kahire)	14:00	Lebanon (Beyrut)	15:00	Swiss (Bern)	14:00
France (Paris)	14:00	Macedonia (Üsküp)	14:00	Tatarstan (Kazan)	15:00
Georgia (Tiflis)	16:00	Malaysia (Kuala Lumpur)	20:00	Tunis (Tunus)	13:00
Germany (Berlin, Köln, Münih)	14:00	Moldova (Gagavuz Region)	15:00	Turkey	15:00
Greece (Atina)	15:00	Morocco (Rabat)	13:00	United States of America (New York)	08:00
Hungary (Budapeşte)	14:00				

* Exam times are local times of exam centers. İUYOS 2015 exam starts at the same time in all exam centers.

TEMEL ÖĞRENME BECERİLERİ TESTİ (THE BASIC LEARNING SKILLS TEST)

1. Bu test sizin soyut düşünme gücünüzü ölçmek için hazırlanmıştır.
2. Bu testte 80 soru vardır.
3. Bu sınavda verilen cevaplama süresi, 100 dakika.
4. Cevaplamaya istediğiniz sorudan başlayabilirsiniz. Cevaplarınızı işaretlerken soru kitapçığındaki soru numarası ile cevap kâğıdındaki cevap numarasının aynı olmasına dikkat ediniz.

1. This test is designed to measure your abstract reasoning.
2. This test is comprised of 80 questions.
3. The time given to answer the items is 100 minutes.
4. The questions need not be answered in any special order, but make sure that the number on the answer sheet does indeed correspond to the number of the question you are working on in the test booklet.

NOT

ONDALIK KESİRLERİ GÖSTERMEK İÇİN
TÜRKÇE METİNLERDE VİRGÜL (,) KULLANILIR.

NOTE

DECIMALS ARE INDICATED BY A COMMA (,) IN TURKISH.





1.

$$\frac{9^{3n+1} + 27^{2n}}{3^{6n-1}} + \frac{4^{3n} - 8^{2n-1}}{2^{6n-5}} = ?$$

- A) 18 B) 30 C) 36 D) 43 E) 58

2.

$$\frac{79^3 - 21^3}{79 \cdot 10^2 + 21^2} = ?$$

- A) 29 B) 58 C) 79
D) 98 E) 100

3.

$$\left(\frac{758 + 7,58}{75,8} \right) : \left(\frac{587 + 5,87}{58,7} \right) = ?$$

- A) $\frac{1}{2}$ B) $\frac{3}{4}$ C) 1
D) $\frac{3}{2}$ E) $\frac{5}{2}$

4.

$$\begin{aligned} 3x - 7y &= 7 \\ 2y - x &= -4 \\ x + y &= ? \end{aligned}$$

- A) 10 B) 11 C) 13 D) 17 E) 19

5.

$$P(x) = 7x^3 - 2x^2 + 3x + 5$$

$$Q(x) = x^3 - x^2$$

$$P(x)Q(x) = a_6x^6 + a_5x^5 + a_4x^4 + \dots + a_1x + a_0$$

$$a_5 = ?$$

- A) -9 B) -6 C) 3
D) 6 E) 9

6.

$$\lim_{x \rightarrow -1} \frac{3x^2 - 2x + 5}{x^3 - 7} = ?$$

- A) -3 B) $-\frac{5}{4}$ C) $-\frac{3}{7}$
D) $\frac{3}{7}$ E) $\frac{5}{4}$



7.

$$\frac{m^2 + n^2 - 2mn}{\frac{1}{m} - \frac{1}{n}} : \frac{m+n}{\frac{1}{m \cdot n}} = ?$$

A) $\frac{1}{n-m}$ B) $\frac{n-m}{n+m}$ C) $\frac{m+n}{m-n}$

D) $\frac{1}{m-n}$ E) $n-m$

8.

$$a + b + c = 7$$

$$2a + c - b = 4$$

$$3a - 2b + c = 3$$

$$\frac{c-a}{b+1} = ?$$

A) 1 B) 2 C) 3

D) 4 E) 5

9.

$$(4,8 - 2,4 \cdot 0,5) : (1,63 + 0,17) = ?$$

A) 0,2 B) 1,5 C) 2

D) 2,4 E) 3,2

10.

$$\frac{2^{17} - 2^{16} + 2^{15}}{2^{16} - 2^{15}} = ?$$

A) 2 B) 3 C) 5

D) 8 E) 12

11.

$$x^3 + 3x^2 + 6x + 3 = (x^2 + x + 1)(x + a) + bx + c$$
$$c = ?$$

A) -2 B) 0 C) 1

D) 3 E) 5

12.

$$\log_5 [5 \log_2 2(\ln(x+1))] = 1$$

$$x = ?$$

- A) $e-2$ B) $e-1$ C) e
D) $e+1$ E) e^2

13.

$$\begin{bmatrix} 3 & -1 \\ 1 & 0 \end{bmatrix} \begin{bmatrix} a \\ b \end{bmatrix} = \begin{bmatrix} 5 \\ 2 \end{bmatrix}$$

$$a.b = ?$$

- A) -2 B) -1 C) 0
D) 1 E) 2

14.

$$\frac{1}{\log_4 x} + \frac{1}{\log_6 x} + \frac{1}{\log_9 x} = 2^{\log_8 27}$$

$$x = ?$$

- A) 4 B) 6 C) 7
D) 9 E) 10

15.

$$x > y$$

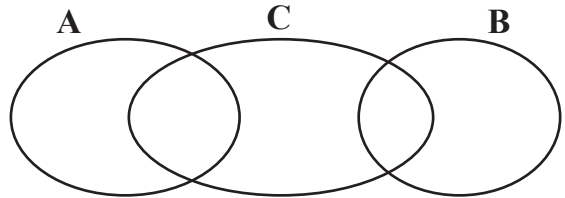
$$x^2 + y^2 = \sqrt{5}$$

$$xy = 1$$

$$x^4 - y^4 = ?$$

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

16.



$$n(A) = 30$$

$$n(B) = 12$$

$$n(C) = 24$$

$$n(C \setminus B) = 20$$

$$n(A \cup C) = 45$$

$$n((C \setminus A) \cup (B \setminus C)) = ?$$

- A) 18 B) 22 C) 23
D) 25 E) 32



17.

$$A = \{n : n < 75, n = 3k, k \in \mathbb{Z}^+\}$$

$$B = \{n : n < 100, n = 4k, k \in \mathbb{Z}^+\}$$

$$n(A \cup B) = ?$$

A) 40

B) 42

C) 43

D) 45

E) 48

18.

$$\left. \begin{array}{l} \frac{3}{x} \Delta \frac{y}{2} = 6x - y + 5 \\ 6 \Delta a = 14 \end{array} \right\} \Rightarrow a = ?$$

A) $\frac{3}{2}$

B) $\frac{1}{2}$

C) -2

D) $-\frac{5}{2}$

E) -3

19.

$$\sqrt{a * b} = \sqrt{a} + \sqrt{b}$$

$$\frac{1}{a \oplus b} = \frac{1}{a} + \frac{1}{b}$$

$$(1 * 4) \oplus 9 = ?$$

A) $\frac{2}{9}$

B) $\frac{4}{9}$

C) 1

D) $\frac{9}{4}$

E) $\frac{9}{2}$

20.

$$\frac{a}{b} = \frac{c}{d} = 12 \Rightarrow \frac{a-b-c+d}{b-d} = ?$$

A) 10

B) 11

C) 12

D) 13

E) 16

21.

$$P(x) = 4x^2 - x + 12 \Rightarrow \begin{array}{r} P(3x+1) \overline{) x+2} \\ \underline{\hspace{1cm}} \\ ? \end{array}$$

- A) 110 B) 112 C) 117
- D) 121 E) 125

22.

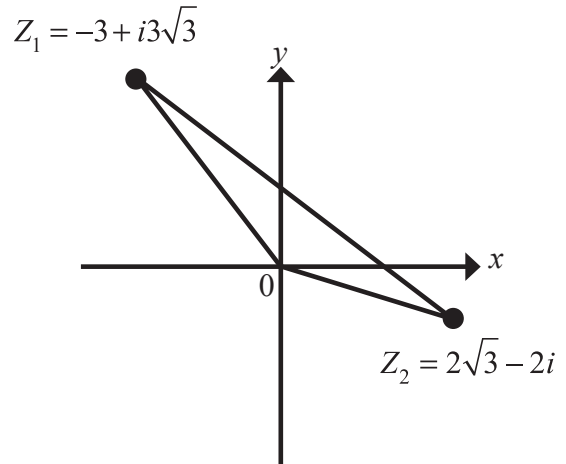
$$f^{-1}(3) = 2$$

$$f(x+2) = \frac{x+a}{x+3}$$

$$a = ?$$

- A) 3 B) 4 C) 6
D) 8 E) 9

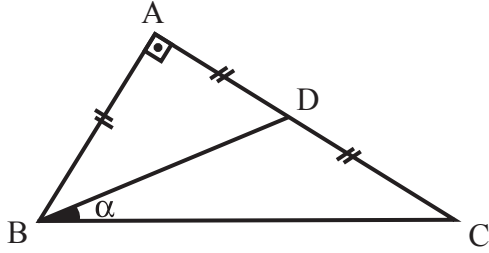
23.



$$A(Z_1\hat{\triangle}OZ_2) = Area(Z_1\hat{\triangle}OZ_2) = ?$$

- A) $3\sqrt{3}$ B) 6 C) $\frac{9\sqrt{3}}{2}$
- D) 9 E) 12

24.



$$[AB] \perp [AC]$$

$$|AD| = |AB| = |DC|$$

$$\tan \alpha = ?$$

A) $\frac{1}{3}$ B) $\frac{1}{2}$ C) 1

D) $\frac{3}{2}$ E) 2

25.

$$f(x) = (\ln(x+1) + \sin 2x)^3 + xe^x$$

$$f'(0) = ?$$

A) 0 B) 1 C) $\ln 4$

D) 2 E) e

26.

$$f(x) = (x^2 - 3)^{10} \Rightarrow$$

$$\lim_{h \rightarrow 0} \frac{f(2+5h) - f(2+3h)}{h} = ?$$

A) 20 B) 40 C) 80

D) 90 E) 100

27.

$$(5+2i)(2-5i) - (2+5i)(5-2i) = ?$$

A) $-42i$ B) $-50i$ C) $-58i$

D) -40 E) 40

28.

$$\int_0^1 (x^2 + 4x + a) dx = \frac{1}{3}$$

 $a = ?$

A) -3

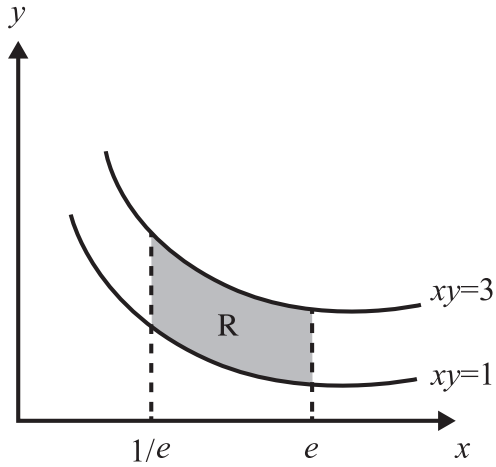
B) -2

C) -1

D) 2

E) 3

29.


 $\text{Alan (R)} = \text{Area (R)} = ?$
A) $\frac{1}{e}$

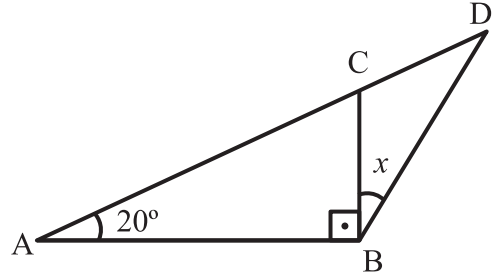
B) 1

C) 2

D) e

E) 4

30.



$$|AC| = 2|DB|$$

 $x = ?$

A) 45

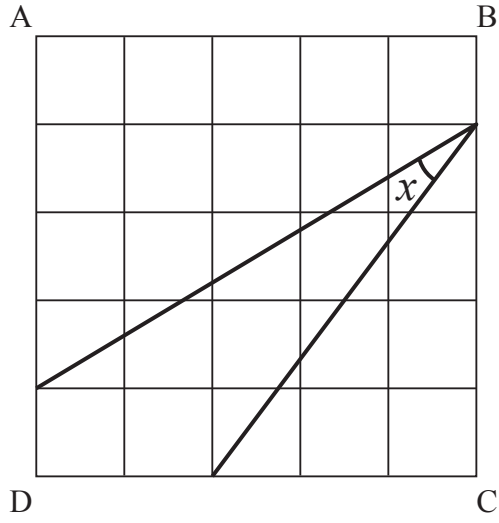
B) 35

C) 30

D) 20

E) 15

31.



$$\tan x = ?$$

A) $\frac{11}{27}$

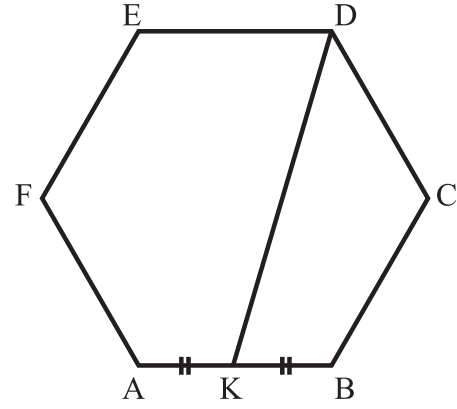
B) $\frac{1}{3}$

C) $\frac{1}{2}$

D) $\frac{9}{11}$

E) $\sqrt{3}$

32.



$$|AB| = |BC| = |CD| = |DE| = |EF| = |FA| = 6$$

$$|DK| = ?$$

A) $\sqrt{13}$

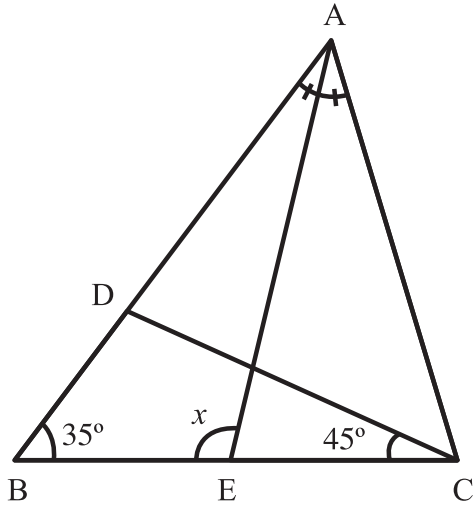
B) $3\sqrt{3}$

C) $6\sqrt{3}$

D) $3\sqrt{13}$

E) $6\sqrt{13}$

33.



$$m(\angle BAE) = m(\angle EAC)$$

$$m(\angle DBC) = 35^\circ$$

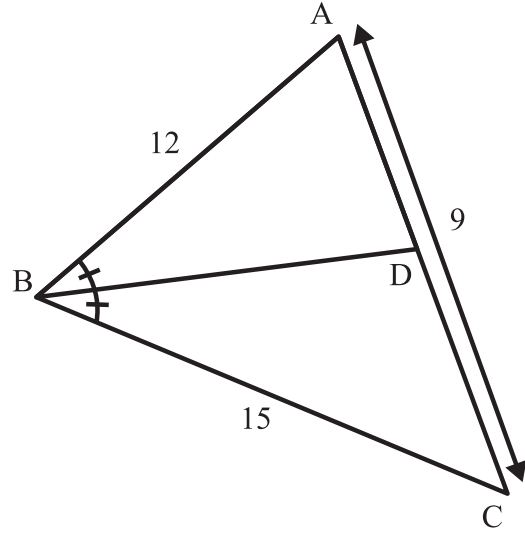
$$m(\angle DCB) = 45^\circ$$

$$|AD| = |EC|$$

$$m(\angle AEB) = x = ?$$

- A) 100 B) 105 C) 110
D) 115 E) 120

34.



$$m(\angle ABD) = m(\angle CBD)$$

$$|AB| = 12$$

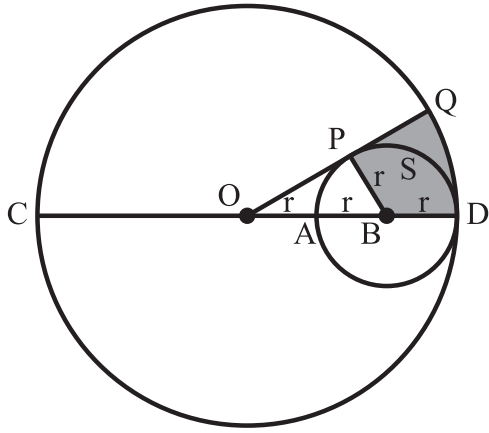
$$|BC| = 15$$

$$|AC| = 9$$

$$|AD| = ?$$

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

35.



$$|OC| = |OD| = |OQ| = 3r$$

$$|OA| = |AB| = |BD| = |BP| = r$$

Alan (S) = Area (S) = ?

A) $\frac{(3\pi - \sqrt{3})}{2} r^2$ B) $\frac{(3 - \pi\sqrt{2})}{4} r^2$

C) $\frac{(3\pi - 2\sqrt{3})}{4} r^2$ D) $\frac{(2\sqrt{3} - \pi)}{4} r^2$

E) $\frac{(\pi + \sqrt{3})}{2} r^2$

36.

7x7 sembolik matrisinde şekil içinde her harf birbirinden farklı bir şekle karşılık gelmektedir.

In the 7x7 symbolic matrix each letter in the figure corresponds to a different shape.

×	□	▽	■	○	◐	×
■	▽	□	■	×	▽	○
×	○	◐	×	■	□	▽
▽	◐	○	□	×	■	□
×	■	■	○	□	○	×
□	○	■	▽	×	◐	○
○	□	▽	×	□	▽	□

	I			II	
		B	A		
□		A		B	N
				M	B

M = ? N = ?

I ve II yukarıdaki tablonun farklı birer parçasıdır. Buna göre II'deki M ve N'nin yerine aşağıdakilerden hangisi gelmelidir?

I and II are different parts of the table above. According to this, which of the following should be used instead of M and N?

- | | M | N |
|----|---|---|
| A) | ▽ | ○ |
| B) | × | □ |
| C) | ○ | ■ |
| D) | □ | × |
| E) | ◐ | ○ |

37.

Aşağıdaki tabloda *A, B, C, D, E* harfleri her satır ve sütunda birer kez olacak şekilde yerleştirildiğinde “*X*” yerine hangi harf gelmelidir?

If the letters *A, B, C, D, E* are used once in each row and column, which letter should be used instead of “*X*” in the table below?

<i>A</i>		<i>B</i>		<i>E</i>
	<i>B</i>			<i>D</i>
			<i>X</i>	
<i>C</i>		<i>D</i>		
		<i>E</i>		<i>B</i>

- A) *A* B) *B* C) *C*
- D) *D* E) *E*

38.

Her harf birbirinden farklı bir şekle karşılık gelmektedir.

There is a different symbol to represent each letter.

M = ?

N = ?

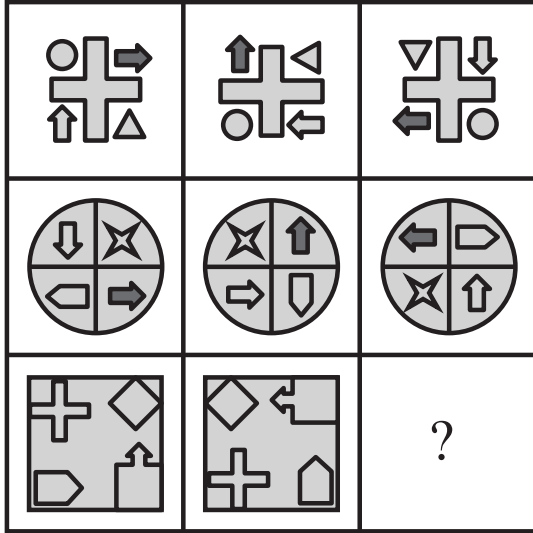
MN

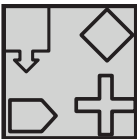
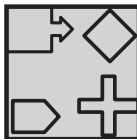
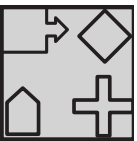
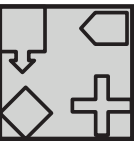
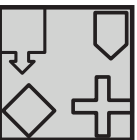
- A)  
- B)  
- C)  
- D)  
- E)  

39.

Aşağıda verilen 3x3 şekil matrislerinde
“?” yerine hangi şekil gelir?

Which shape should be used instead of “?”
in the 3x3 matrix given below?

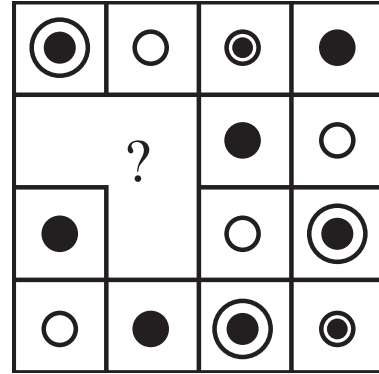


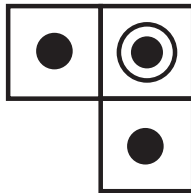
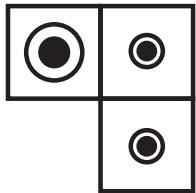
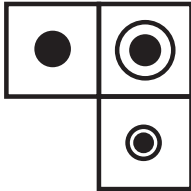
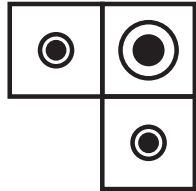
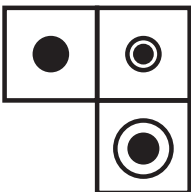
- A) 
- B) 
- C) 
- D) 
- E) 

40.

Soru işaretinin yerine getirilmesi
gereken şekli bulunuz.

Find the shape which should be used
instead of question mark.



- A) 
- B) 
- C) 
- D) 
- E) 

41.

+	a	b	c
a		$c + 3$	
b			$a - 5$
c			

$\times$	a	b	c
a			5
b			
c			

$$a^2 + c^2 = ?$$

Yukarıdaki çarpma ve toplama tablolarında a , b ve c harfleri birer sayının yerine kullanılmıştır. Buna göre, $a^2 + c^2$ kaçtır?

In the multiplication and addition tables above, the letters a , b and c each stand for a number. Accordingly, what is the value of $a^2 + c^2$?

- A) 12 B) 16 C) 18
D) 24 E) 26

42.

+	a	b	c
a		8	
b			
c			

$\times$	a	b	c
a			30
b	15		
c		18	

$$c = ?$$

Yukarıdaki çarpma ve toplama tablolarında a , b ve c harfleri birer sayının yerine kullanılmıştır. Buna göre, c kaçtır?

In the multiplication and addition tables above, the letters a , b and c each stand for a number. Accordingly, what is the value of c ?

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

43.

$\times$	a	b	c	d
a			18	
b	8			
c				36
d		16		

$$a \times b \times c \times d = ?$$

Yukarıdaki çarpma tablosunda a , b , c ve d harfleri birer sayının yerine kullanılmıştır. Buna göre $a \times b \times c \times d$ kaçtır?

In the multiplication table above, the letters a , b , c and d each stand for a number. Accordingly, what is the value of $a \times b \times c \times d$?

- A) 270 B) 280 C) 288
D) 300 E) 306

44.

$+$	a	b
a		6
b		

$\times$	a	b
a		
b	6	

$$a^3 + b^3 = ?$$

Yukarıdaki çarpma ve toplama tablolarında a ve b harfleri birer sayının yerine kullanılmıştır. Buna göre, $a^3 + b^3$ kaçtır?

In the multiplication and addition tables above, the letters a and b each stand for a number. Accordingly, what is the value of $a^3 + b^3$?

- A) 84 B) 90 C) 96
D) 108 E) 112



45.

Aşağıda $*$ işleminin verilen örneklerine göre x kaçtır?

According to the $*$ operation examples, what is the value of x ?

$$3 * 4 = 65$$

$$4 * 2 = 17$$

$$2 * 3 = 10$$

$$5 * 2 = x$$

A) 26

B) 33

C) 37

D) 50

E) 82

46.

Sayı dizisinde “ x ” yerine kaç gelmelidir?

Which number should be used instead of “ x ” in the number sequence below?

1, 2, 5, 14, 41, x

A) 77

B) 80

C) 92

D) 120

E) 122

47.

Sayı dizisinde “ x ” yerine kaç gelmelidir?

Which number should be used instead of “ x ” in the number sequence below?

1, 5, 19, 65, 211, x

A) 498

B) 573

C) 587

D) 665

E) 695

48.

1	5	→ 1
2	3	→ 8
3	4	→ 81
5	2	→ 25
7	3	→ x

$x = ?$

A) 21

B) 64

C) 326

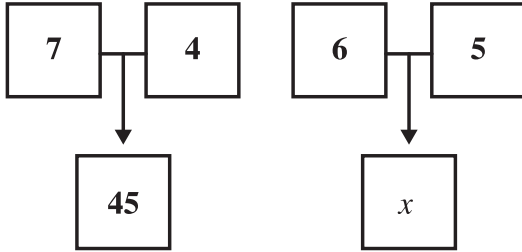
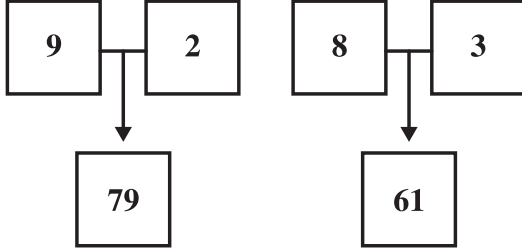
D) 343

E) 2187

49.

Aşağıda “x” yerine kaç gelmelidir?

What should be used instead of “x” below?



A) 28

B) 31

C) 33

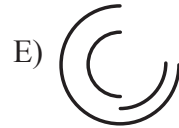
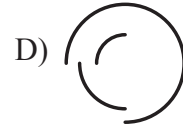
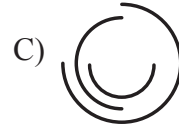
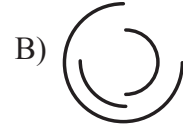
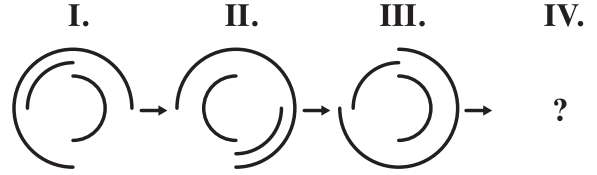
D) 37

E) 39

50.

Soru işaretinin yerine getirilmesi gereken şekli bulunuz.

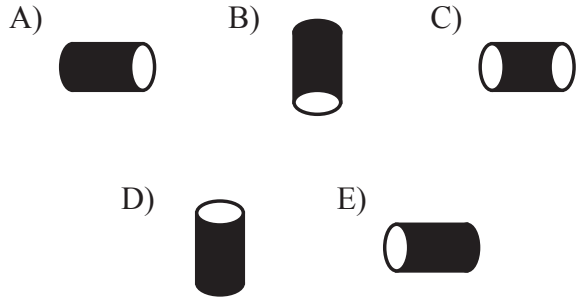
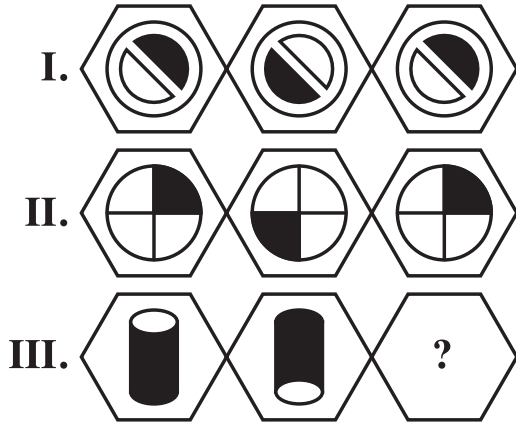
Find the shape which should be used instead of the question mark.



51.

I. ve II. satırda verilen ilişkiye göre
III. satırda “?” olan yere aşağıdaki
şekillerden hangisi gelmelidir?

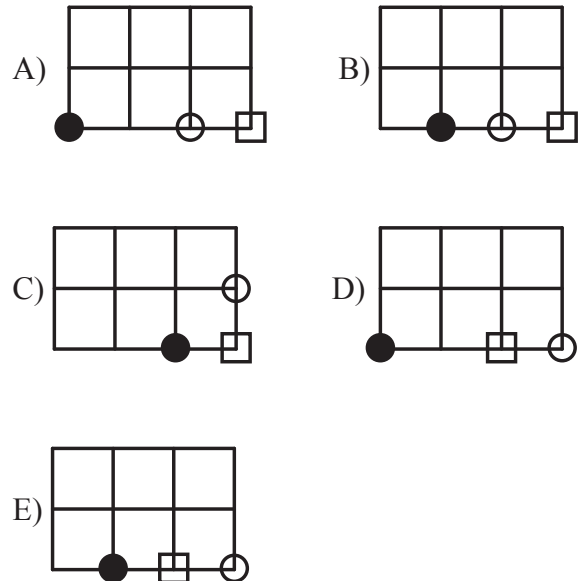
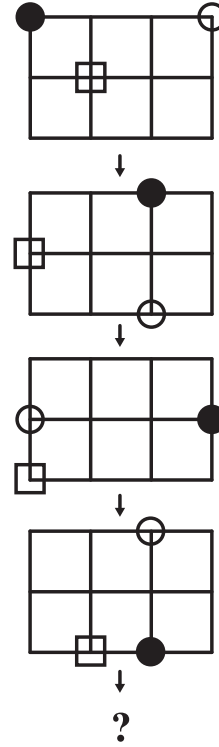
According to the given relationship in
rows I and II, which shape should be used
instead of “?” in row III?



52.

Aşağıdaki şekil dizisinde soru işaretinin
yerine getirilmesi gereken şekli bulunuz.

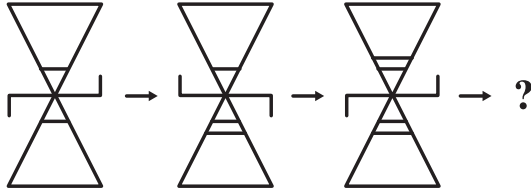
Find the figure which the question mark
stands for in the figure sequence given
below.



53.

Aşağıdaki şekil dizisinde soru işaretinin yerine getirilmesi gereken şekli bulunuz.

Find the figure which the question mark stands for in the figure sequence given below.

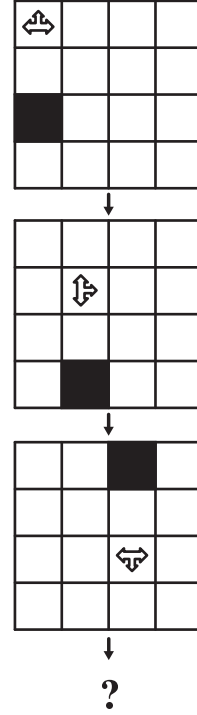


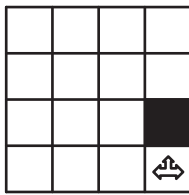
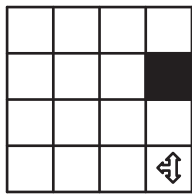
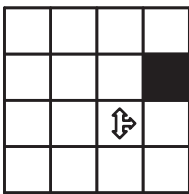
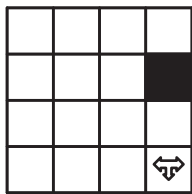
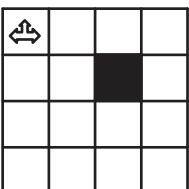
- A)  B) 
- C)  D) 
- E) 

54.

Aşağıdaki şekil dizisinde soru işaretinin yerine getirilmesi gereken şekli bulunuz.

Find the figure which the question mark stands for in the figure sequence given below.

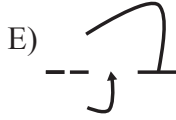
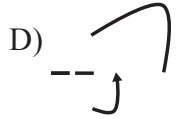
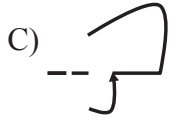
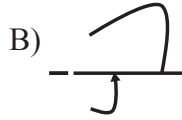
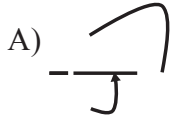
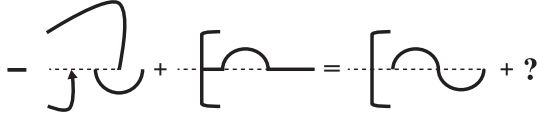


- A)  B) 
- C)  D) 
- E) 

55.

Aşağıdaki şekil toplama işleminde soru işareti yerine hangi şekil gelir?

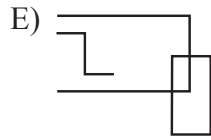
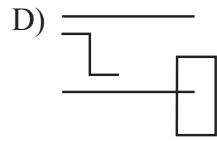
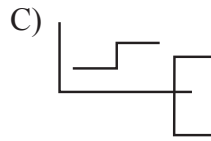
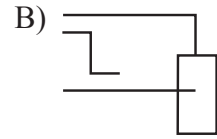
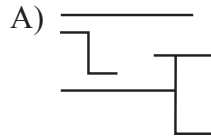
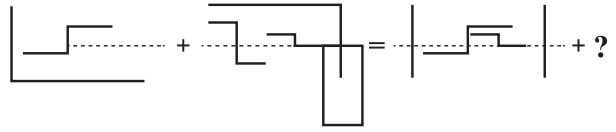
In the following shape assembly procedure, which shape should be used instead of the question mark?



56.

Aşağıdaki şekil toplama işleminde soru işareti yerine hangi şekil gelir?

In the following shape assembly procedure, which shape should be used instead of the question mark?



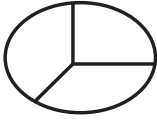
57.



Yukarda verilen parçalar kullanılarak oluşturulan şekil aşağıdakilerden hangisidir?

Which of the following shapes is obtained after combining the shapes given above?

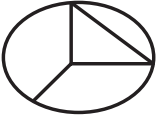
A)



B)



C)



D)



E)

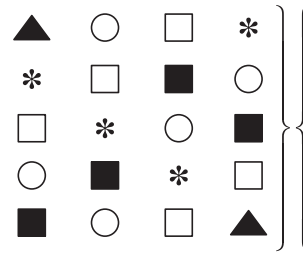


58.

I. gruptaki şekiller birer rakamla gösterilerek II. gruptaki sayılar elde edilmiştir. Soru işaretinin hangi sayıyla gösterildiğini bulunuz.

The numbers in group II are obtained by denoting the shapes in group I with a digit. Find the number which corresponds to the question mark.

I.



II.

1563 2351 3615
5136 6352

$$\square * \bigcirc \blacksquare = ?$$

A) 1563

B) 2351

C) 3615

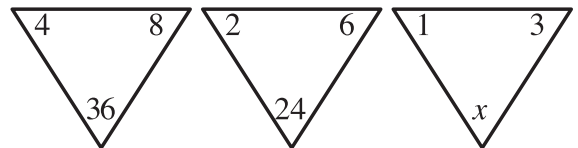
D) 5136

E) 6352

59.

Aşağıda verilen sayılar bir kurala göre yazılmıştır. Buna göre x kaçtır?

The numbers given below are written according to a rule. Accordingly, what is the value of x?



$$x = ?$$

A) 4

B) 8

C) 12

D) 16

E) 20

60.

I. gruptaki şekiller birer rakamla gösterilerek II. gruptaki sayılar elde edilmiştir. Soru işaretinin hangi sayıyla gösterildiğini bulunuz.

The numbers in group II are obtained by denoting the shapes in group I with a digit. Find the number which corresponds to the question mark.

I.	II.
$\begin{matrix} \text{H} & \diamond & \neq & \neq \\ \neq & \neq & \text{H} & \diamond \\ \text{L} & \diamond & \neq & \text{H} \\ \text{H} & \text{L} & \text{H} & \text{L} \\ \diamond & \neq & \neq & \text{H} \end{matrix}$	$\left\{ \begin{matrix} 4646 & 1345 & 4513 \\ & 5314 & 6514 \end{matrix} \right.$

$$\text{L} \diamond \neq \text{H} = ?$$

A) 1345 B) 4513 C) 4646

D) 5314 E) 6514

61.

I. gruptaki harfler birer rakamla gösterilerek II. gruptaki sayılar elde edilmiştir. Soru işaretinin hangi sayıyla gösterildiğini bulunuz.

The numbers in group II are obtained by denoting the letters in group I with a digit. Find the number which corresponds to the question mark.

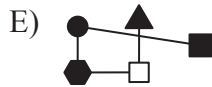
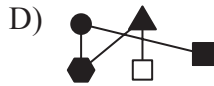
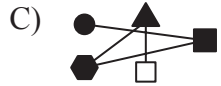
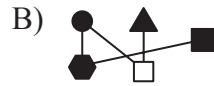
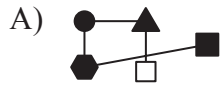
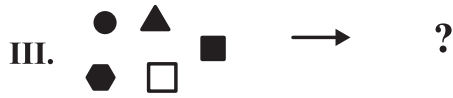
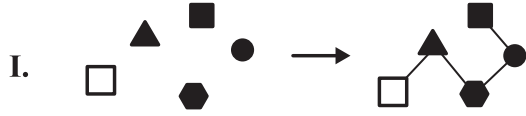
I.	II.
$\begin{matrix} A & D & E & M \\ M & O & D & A \\ S & A & R & A \\ M & E & R & A \\ D & A & M & A \end{matrix}$	$\left\{ \begin{matrix} 2183 & 7383 & 3512 \\ & 5323 & 2653 \end{matrix} \right.$

$$S A R A = ?$$

A) 2183 B) 2653 C) 3512

D) 5323 E) 7383

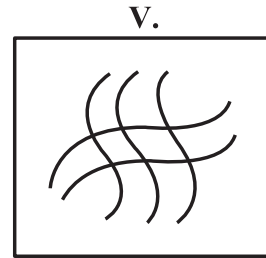
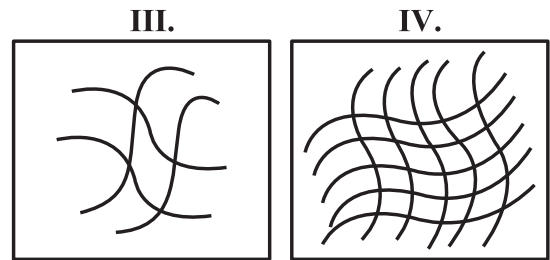
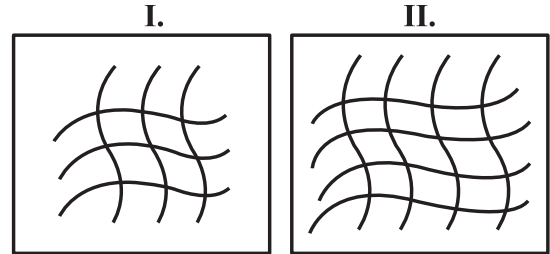
62.



63.

Aşağıdaki şekillerden hangisi farklıdır?

Which of the following shapes is different?



A) I

B) II

C) III

D) IV

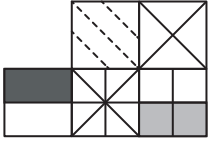
E) V

64.

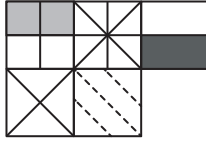
Aşağıdaki şekillerden hangisi farklıdır?

Which of the following shapes is different?

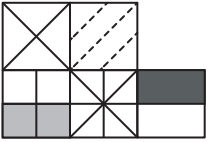
A)



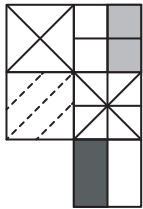
B)



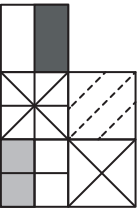
C)



D)



E)

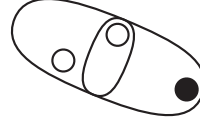


65.

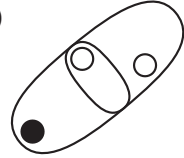
Aşağıdaki şekillerden hangisi farklıdır?

Which of the following shapes is different?

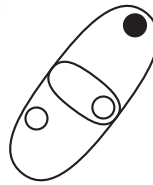
A)



B)



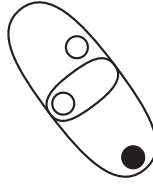
C)



D)



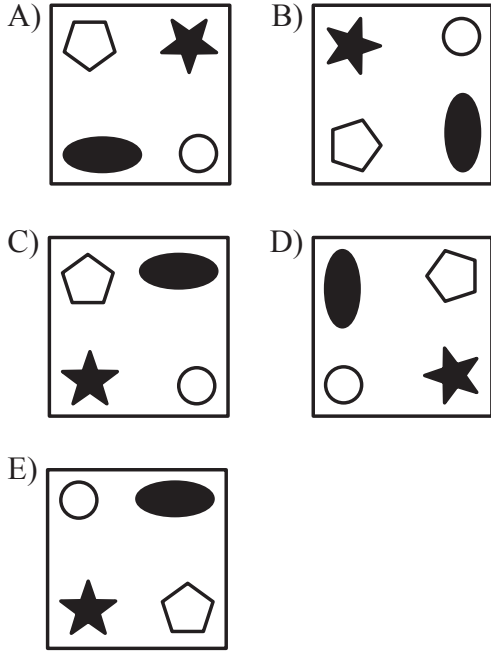
E)



66.

Aşağıdaki şekillerden hangisi farklıdır?

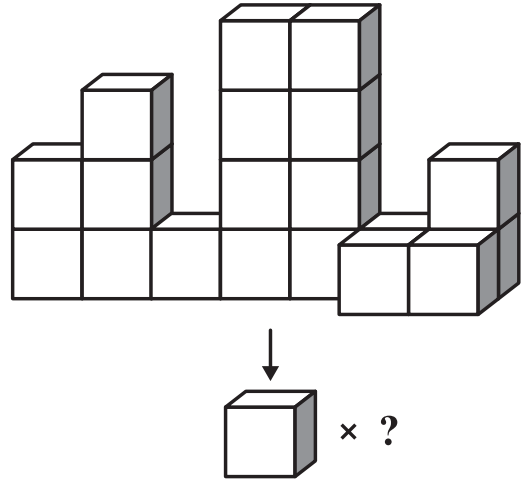
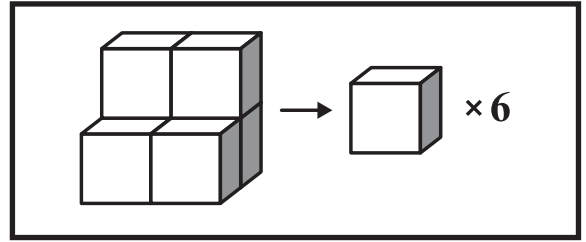
Which of the following shapes is different?



67.

Aşağıdaki örnekte verilen ilişkiye göre soruyu cevaplayınız.

Answer the question according to the relationship given in the example below.



A) 12

B) 14

C) 16

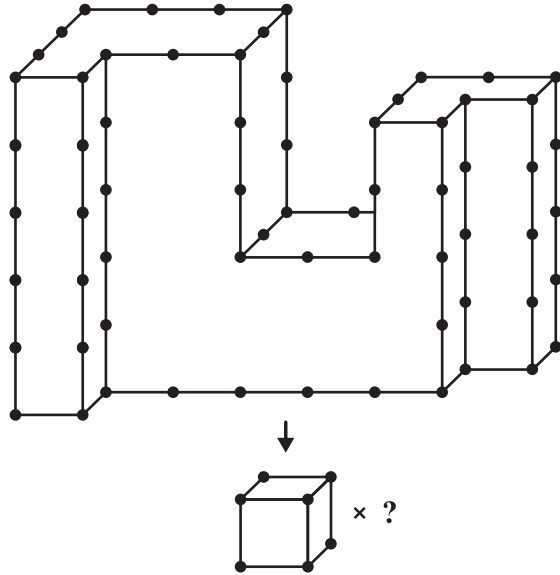
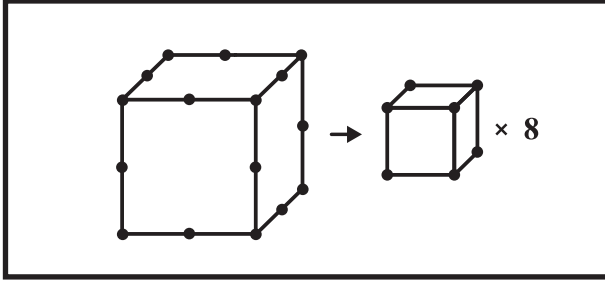
D) 19

E) 21

68.

Aşağıdaki örnekte verilen ilişkiye göre soruyu cevaplayınız.

Answer the question according to the relationship given in the example below.



A) 48

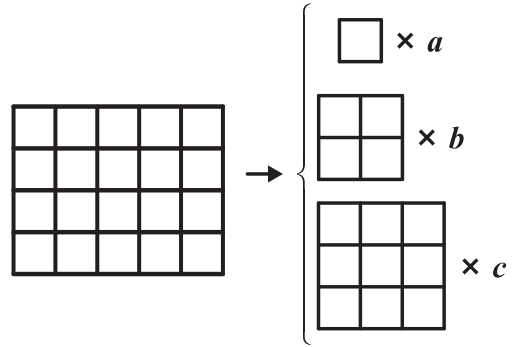
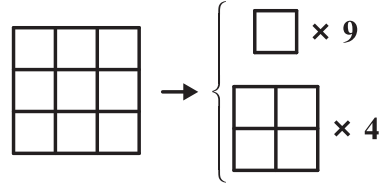
B) 50

C) 51

D) 55

E) 58

69.



$$a + b + c = ?$$

A) 24

B) 28

C) 34

D) 38

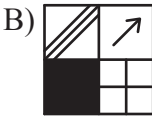
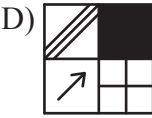
E) 40

70.

I. 

II. 

III. 

- A) 
- B) 
- C) 
- D) 
- E) 

71.

I.

	a	b	
c			
			d



$$(1.2).a + (1.3).b + (2.1).c + (3.4).d = 2a + 3b + 2c + 12d$$

II.

	10		
5		4	



54

III.

		1	1
2			
		5	



?

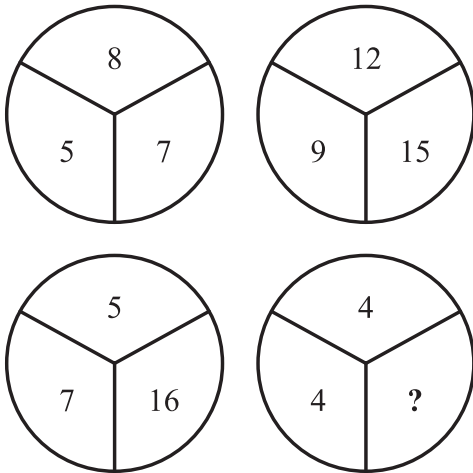
- A) 40 B) 50 C) 56
- D) 80 E) 81

72.

2	2	1	1
4	4	2	2
3	0	1	5
9	2	4	?

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

73.



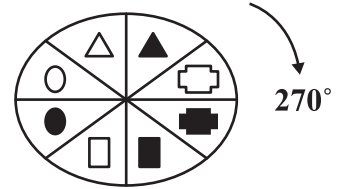
- A) 6 B) 8 C) 10
D) 12 E) 14

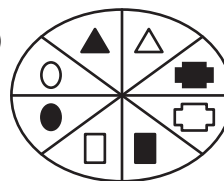
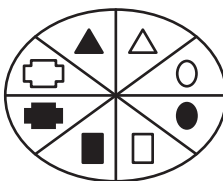
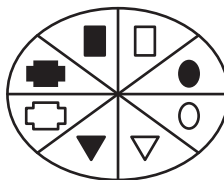
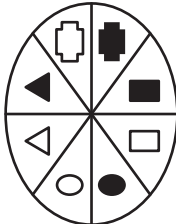
74.

- I.  $\equiv$ 
II.  $\equiv$ 
III.  $\equiv$?

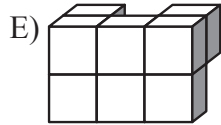
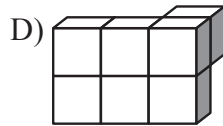
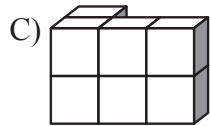
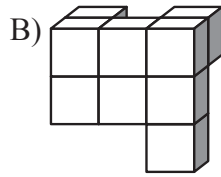
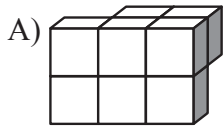
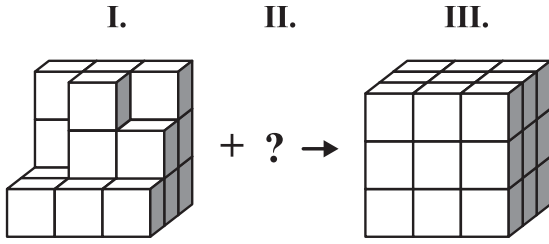
- A)  B) 
C)  D) 
E) 

75.

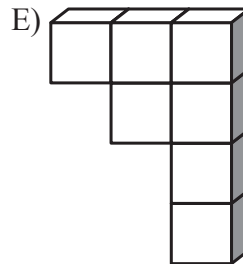
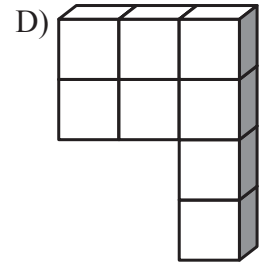
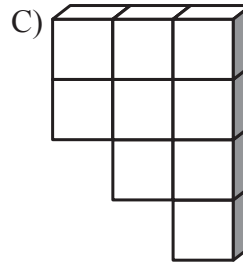
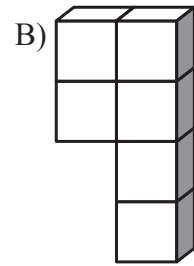
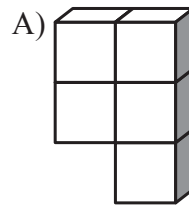
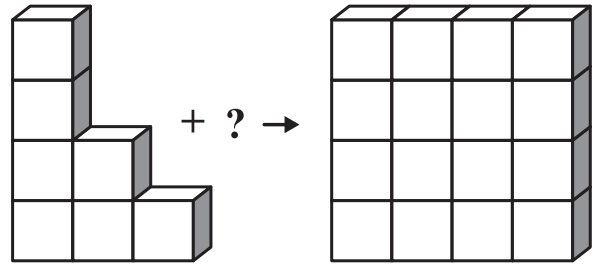


- A)  B) 
C)  D) 
E) 

76.



77.



78.

$$5 \times \bullet = 2 \times \blacktriangle + \blacksquare$$

$$3 \times \blacksquare = \blacktriangle + \bullet$$

$$\bullet - \blacksquare = ?$$

A) -2

B) 0

C) 1

D) 2

E) 4

79.

Aşağıdaki toplama tablosuna göre soru işareti yerine aşağıdakilerden hangisi gelir?

According to the addition table below, which shapes correspond to the question mark?

+	●●	▲	■
●			
▲	■ ■		
■		● ● ●	

$$\blacksquare + \bullet = ?$$

A) ●●●

B) ▲●●

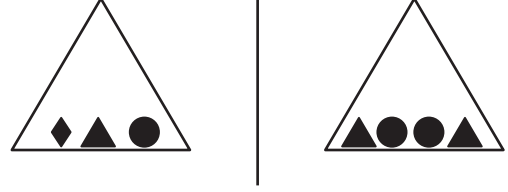
C) ▲■ ■

D) ▲▲

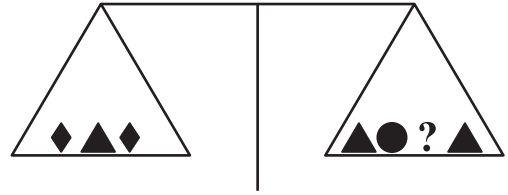
E) ■ ▲

80.

I.



II.



Yukarıdaki terazilerin ikisi de dengede olduğuna göre, II. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

As both of the scales above are balanced, which of the following does the question mark stand for in scale II?

A) ◆

B) ▲▲

C) ▲●●

D) ◆●

E) ●●

SINAVDA UYULACAK KURALLAR

1. Cep telefonu ile sınava girmek kesinlikle yasaktır. Çağrı cihazı, telsiz, vb. haberleşme araçları ile cep bilgisayar, saat fonksiyonu dışında fonksiyonu bulunan saat vb. her türlü bilgisayar özelliği bulunan cihazlarla ve ayrıca silah vb. teçhizatla, müsvedde kâğıdı, defter, kitap, sözlük, sözlük işlevi olan elektronik aygıt, hesap makinesi, hesap cetveli, pergel, açılöçer, cetvel vb. araçlarla da sınava girmek yasaktır. Bu araçlarla sınava girmiş adayların yabancı uyruk numaraları mutlaka Salon Sınav Tutanağına yazılacak, bu adayların sınavları geçersiz sayılacaktır.
2. Bu sınavda verilen cevaplama süresi, 100 dakika.
3. Sınav evrakını teslim ederek salonu terk eden aday, her ne sebeple olursa olsun tekrar sınava alınmayacaktır.
4. Sınav sırasında herhangi bir nedenle dışarı çıkmak yasaktır. Sınavın başlamasını izleyen ilk 30 dakika ve sınav süresinin son 15 dakikası içinde, sınavlarını tamamlasalar bile hiçbir adayın salondan çıkmasına izin verilmeyecektir. Sınavın başlamasını izleyen ilk 30 dakikadan sonra hiçbir aday sınava alınmaz.
5. Sınav süresince görevlilerle konuşmak ve onlara soru sormak yasaktır. Aynı şekilde görevlilerin de adaylarla yakından ve alçak sesle konuşmaları; ayrıca, adayların birbirinden kalem, silgi vb. şeyleri istemeleri kesinlikle yasaktır.
6. Sınav sırasında görevlilerin her türlü uyarılarına uymak zorundasınız. Gerektiğinde görevliler oturduğunuz yerleri de değiştirebilir. Sınavınızın geçerli sayılması, her şeyden önce sınav kurallarına uymanıza bağlıdır. Kurallara aykırı davranışta bulunur ve yapılacak uyarılara uymazsanız kimliğiniz tutanağa yazılacak ve sınavınız geçersiz sayılacaktır.
7. Sınav sırasında kopya çeken, çekmeye girişen, kopya veren, kopya çekilmesine yardım edenlerin kimlik bilgileri Salon Sınav Tutanağına yazılacak ve bu adayların sınavları geçersiz sayılacaktır. Görevliler kopya çekmeye veya vermeye çalışanları uyarmak zorunda değildir. Sorumluluk size aittir. Sınav sırasında cevap kâğıdınızı başkaları tarafından görülmeyecek şekilde tutmanız sizin için son derece önemlidir.
8. Cevap kâğıdında ilgili alanları doldurmanız gerekmektedir. Cevap kâğıdına yazılacak her türlü yazıda ve yapılacak bütün işaretlemelerde kurşun kalem kullanılacaktır. Tükenmez kalem ve dolma kalem kesinlikle kullanılmayacaktır. Cevapların cevap kâğıdına işaretlenmiş olması gerekir. Soru kitapçığına işaretlenen cevaplar geçerli değildir.
9. Soru kitapçığınızı alır almaz, sayfaların eksik olup olmadığını, kitapçıkta basım hatalarının bulunup bulunmadığını kontrol ediniz. Soru kitapçığının sayfası eksik veya basımı hatalı ise değiştirilmesi için derhâl Salon Başkanına başvurunuz. Soru kitapçığının her sayfasında basılı bulunan soru kitapçığı türünün, kitapçığın ön kapağında basılı soru kitapçığı türüyle aynı olup olmadığını kontrol ediniz. Farklı olması durumunda Salon Başkanından yeni bir soru kitapçığı isteyiniz. Soru kitapçığının türünün değişik olduğunu daha sonra fark ederseniz, size o zamana kadar cevaplama yaptığınız türden, hatasız bir soru kitapçığı verilmesi için Salon Başkanına başvurunuz. Cevap kâğıdınıza, size verilecek olan soru kitapçığının türünü işaretlemeyi unutmayınız. Bu işaret konmamışa sınavınızın değerlendirilmesine olanak bulunmadığından sınavınız geçersiz sayılacaktır.
10. Cevaplamaya geçmeden önce size verilecek soru kitapçığının üzerinde ayrılan yere adınızı, soyadınızı, Aday Numarası ve bu salonun Salon Numarasını yazınız. Soru kitapçıkları toplanacak ve tek tek incelenecektir. Soru kitapçığının bir tek sayfası bile eksik çıkarsa sınavınız geçersiz sayılacaktır.
11. Soru kitapçığının sayfalarındaki boş yerleri müsvedde için kullanabilirsiniz.
12. Sınav sırasında, görevliler dahil, kimse sigara, pipo, puro vb. şeyleri içmeyecektir.
13. Soruları ve bu sorulara verdiğiniz cevapları ayrı bir kâğıda yazıp bu kâğıdı dışarı çıkarmanız kesinlikle yasaktır.
14. Sınav salonundan ayrılmadan önce, soru kitapçığınızı, cevap kâğıdınızı salon görevlilerine teslim etmeyi unutmayınız.

(English text is in the next page.)

RULES TO BE FOLLOWED

1. It's strictly forbidden to bring cellular (mobile) phones into the examination hall. Also forbidden are any other kind of electronic or communications equipment (other than watches that only show time), weapons, explosive materials, scrap paper, notebooks, books, dictionaries and related instruments, slide-rules, compasses, protractors, rulers, and the like. Any violators of these rules will have their examinations cancelled.
2. The time given to answer the items is 100 minutes.
3. No candidate who has submitted his/her examination paper to a person in charge and leaves the examination hall, for any reason whatsoever, will be allowed to re-enter the hall.
4. Students will NOT be allowed to leave the examination room for any reason. Students are NOT permitted to leave the examination room within the first thirty (30) minutes after the commencement of the examination and fifteen (15) minutes before the completion of the examination. Students who arrive within the first 30 minutes after the examination has commenced will NOT be allowed to take the examination.
5. During the test, it is forbidden to ask questions of or talk to those persons in charge. It is also against the rules of the examination for people in charge to converse or whisper to any candidates. Similarly, it is forbidden to ask another candidate for a pencil, eraser, or anything else.
6. During the examination, candidates are required to comply with all the directions given to them by the people in charge, who have the right to tell a candidate to change his/her seat. You must obey all instructions given to you. Otherwise, your name and application number will be taken, and your examination will be cancelled.
7. If during the test anyone is found cheating, trying to cheat, or helping someone else to cheat, his/her name and application number will be recorded, and his/her answer sheet will not be considered for evaluation. The people in charge are in no way required to warn candidates about cheating. This is the candidates' responsibility. During the examination, it is extremely important that you exercise extreme care in not letting your answer sheet be seen by another candidate.
8. It is important to fill in the necessary areas on the answer sheet. You must use only a soft lead pencil for writing your name and other information or marking answers. No type of pen may be used. Mark your answers only on the answer sheet. Answers marked in the test booklet will be ignored.
9. Once the test booklets have been distributed, you should check to see that no pages are missing and all pages are readable. You should inform the people in charge immediately in such an event so that your test booklet can be changed. Check whether the letter printed at the top of each page in the test booklet is the same as the letter printed on the cover. If you realize such a disparity later in the exam, you should ask those in charge for a new test booklet that makes the type you have been working on up to that time. Remember to mark the letter of the booklet on your answer sheet; otherwise, your exam will be invalid, since it will not be possible to evaluate it.
10. Before you begin to answer the questions, you must write your name, surname, candidate number, and examination hall number on the cover of your booklet. Following the examination, all test booklets are collected and inspected. If even one page of a test booklet is missing, the answer sheet will not be considered for evaluation.
11. You may use the blank spaces on the pages of the test booklet as scrap paper for writing or calculating purposes.
12. No one, including a person in charge, is allowed to smoke a cigarette, or other tobacco product during the examination.
13. It is strictly forbidden to make a record of your answers on any paper and take it out.
14. Remember to give in your test booklet, answer sheet the people in charge before you leave the examination hall.

(Türkçesi bir önceki sayfadadır.)