

DUMLUPINAR ÜNİVERSİTESİ DPÜYÖS 2019

YURTDIŞINDAN ÖĞRENCİ KABUL SINAVI SORU KİTAPÇIĞI

INTERNATIONAL STUDENT ADMISSION TEST BOOKLET

کتاب الامتحان لقبول الطلاب الدوليين

СПРАВОЧНИК ВОПРОСОВ ВСТУПИТЕЛЬНОГО ЭКЗАМЕНА ДЛЯ ИНОСТРАННЫХ
АБИТУРИЕНТОВ

Aday No / Candidate No	:
رقم المرشح / № Абитуриента	:
Adı / Name	:
الاسم / Имя	:
Soyadı / Lastname	:
نسبة / Фамилия	:
Uyruk / Nationality	:
الجنسية / Гражданство	:
Sınav Merkezi / Examination Center	:
مركز الامتحان / Экзаменационный центр	:
Sınav Salon No / Examination Room No	:
رقم قاعة الامتحان / № Экзаменационного салона	:

TEMEL ÖĞRENME BECERİLERİ TESTİ

1. Bu test sizin soyut düşünme becerinizi ölçmek için hazırlanmıştır.
2. Bu testte 80 soru vardır, **Sınav süresi 120 dakikadır.**
3. Cevaplamaya istediğiniz sorudan başlayabilirsiniz. Cevaplarınızı işaretlerken soru kitapçığındaki soru numarası ile cevap kâğıdındaki cevap numarasının aynı olmasına dikkat ediniz.
4. Ondalık kesirleri göstermek için Türkçe metinlerde virgül(,) kullanılır.

اختبار مهارات التعلم الأساسية

1. صمم هذا الامتحان لقياس مهاراتك المنطقية المجردة.
2. يتكون الامتحان من ثمانين سؤالاً. مدة الامتحان 120 دقيقة وعشرون دقيقة.
3. لن يجاب عن الأسئلة وفق ترتيب معين. لكن تأكد من أن الرقم في ورقة الإجابة مطابق تماماً لرقم السؤال الذي تعمل به في كتيب الأسئلة.
4. الكسور العشرية محددة بفاصلة.

THE BASIC LEARNING SKILLS TEST

1. This test is designed to measure your abstract reasoning skill.
2. This test is comprised of 80 questions. **The exam duration is 120 minutes.**
3. 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.
4. Decimals are indicated by a comma (,) in Turkish.

ТЕСТ ОСНОВНЫХ УЧЕБНЫХ СПОСОБНОСТЕЙ

1. Данный тест разработан с целью оценки вашего абстрактного мышления.
2. Данный тест содержит 80 вопросов. **Продолжительность экзамена 120 минут.**
3. Можете приступать к ответу с любого вопроса теста. При обозначении ответов на вопросы будьте внимательны, чтобы номер вопроса теста совпадал с номером письменного ответа.
4. Чтобы показать десятичные дроби в турецких текстах используется запятая (,).

DPÜYÖS 2019

1. $\begin{array}{c} \text{I} \\ \text{AYNA} \end{array} \rightarrow \begin{array}{c} \text{II} \\ \text{SKOS} \end{array}$
 $\begin{array}{c} \text{KISA} \end{array} \rightarrow \begin{array}{c} \text{NAIS} \end{array}$
 $\Rightarrow \text{YAKINSAK} = ?$
- A) KSNOAISN B) KSNIOASN C) KSANOISN
D) KSNAOISN E) KSNAIOSN

2. $\text{KÜTAHYA} = 6543913$
 $\Rightarrow \text{KAHVALTI} = ?$
- A) 63983742 B) 63953741 C) 63973745
D) 63913742 E) 63953742

3. $\angle \text{TENEKE} = \text{NEKTEE}$
 $\text{TAHTA} \odot = \text{ATHAT}$
 $\angle \text{ELBİSE} \odot = \text{ELESİB}$
 $\Rightarrow \angle \text{SANDAL} \odot = ?$
- A) LADNAS B) LASADN C) NDASAL
D) DNALAS E) SALAND

4. $\begin{array}{c} \text{I} \\ \text{TRKML} \\ \text{RMSTK} \\ \text{LKMRT} \\ \text{KL TSM} \\ \text{MTLKS} \end{array} \left. \vphantom{\begin{array}{c} \text{I} \\ \text{TRKML} \\ \text{RMSTK} \\ \text{LKMRT} \\ \text{KL TSM} \\ \text{MTLKS} \end{array}} \right\} \Rightarrow \begin{array}{c} \text{II} \\ 60714 \\ 71630 \\ 03167 \\ 17046 \\ 36401 \end{array}$
 $\Rightarrow \text{RMSTK} = ?$
- A) 60714 B) 71630 C) 03167
D) 17046 E) 36401

5. $\begin{array}{ccccc} 7 & 2 & 4 & 9 & 6 \\ 6 & 2 & 1 & 3 & 4 \\ 8 & 5 & 3 & 1 & 6 \end{array} \begin{array}{c} \equiv \\ \equiv \\ \equiv \end{array} \begin{array}{c} 1315 \\ 97 \\ 167 \end{array}$
 $\begin{array}{ccccc} 2 & 8 & 4 & 3 & 9 \end{array} \equiv ?$
- A) 1513 B) 9797 C) 1412
D) 1567 E) 1439

6. I. $7 \odot 5 \square 2 \triangle 4 = 4$
II. $6 \square 4 \triangle 2 \odot 5 = 3$
III. $4 \triangle 3 \square 2 \odot 7 = 17$
IV. $4 \odot 8 \triangle 3 \square 9 = ?$
- A) 15 B) 16 C) 17 D) 18 E) 19

7. $3 \blacksquare 4 = 12$
 $2 \blacksquare 8 = 11$
 $4 \blacksquare 7 = 22$
 $5 \blacksquare 9 = ?$

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

8. $7 \square 4 = 5$
 $1 \square 1 = 2$
 $3 \square 2 = 5$
 $4 \square 3 = ?$

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

9. $18 \ominus 21 = 9$
 $45 \ominus 90 = 0$
 $16 \ominus 12 = 4$
 $67 \ominus 12 = ?$

- A) 12 B) 25 C) 32 D) 36 E) 40

10.

4	7	2	5
3	8	9	8
7	14	4	A
6	8	5	7

Sonuç/Result/Resultat
/النتيجة/результат

$$A = ?$$

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

11.

6	4	2	8	40
1	5	7	4	33
4	3	6	2	A
1	7	6	5	37

$$A = ?$$

- A) 20 B) 22 C) 24 D) 26 E) 28

12.

x	a	b
a	2a	
c		

+	a	b
a		4c
c		18

$$a, b, c > 0 \Rightarrow b = ?$$

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

13.

+	a	b	c
a		38	
b			26
c	2b		

$$a, b, c > 0 \Rightarrow b = ?$$

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

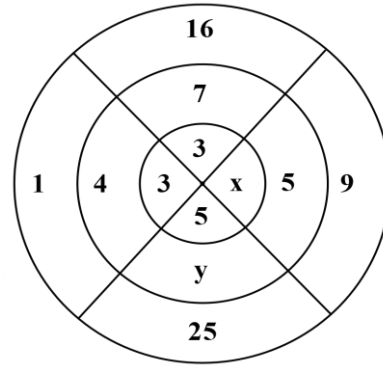
14.

+	a	b	c
a		$2c-7$	
b			15
c	$2b+8$		

$$\Rightarrow a = ?$$

- A) 7 B) 8 C) 9 D) 10 E) 11

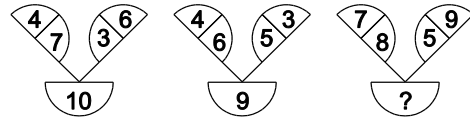
15.



$$\Rightarrow x+y = ?$$

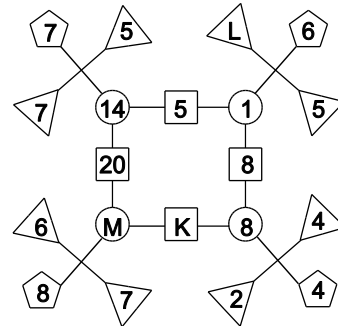
- A) 10 B) 13 C) 11 D) 12 E) 14

16.



- A) 7 B) 8 C) 11 D) 12 E) 13

17.

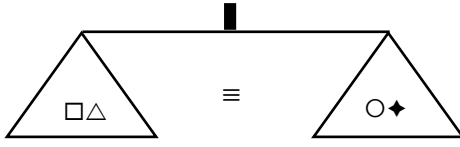


$$\Rightarrow K+L+M = ?$$

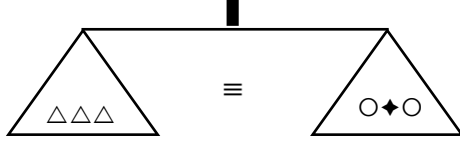
- A) 60 B) 64 C) 62 D) 63 E) 61

18.

I.



II.



III.



Yukarıdaki terazilerin üçü de dengede olduğuna göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

All three scales above are in balance. Which of the following does the question mark stand for in the third scale?

Die oben abgebildeten drei Waagen stehen alle im Gleichgewicht. Folglich, was zeigt das Fragezeichen bei der Waage III an?

Все три весы должны находиться в равновесии. Каким из вариантов ответов, указанных ниже, следует заменить вопросительный знак, так, чтобы весы по прежнему оставались в равновесии?

ما الشكل المناسب لوضعه بدلاً من أداة الاستفهام الموجودة في الميزان الثالث، إذا ما كانت الموازين الثلاثة الواردة أعلاه متساوية؟

A) △

B) △△

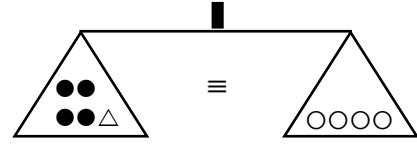
C) △△△

D) △△△△

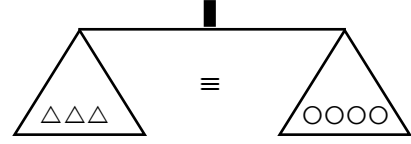
E) △△△△△

19.

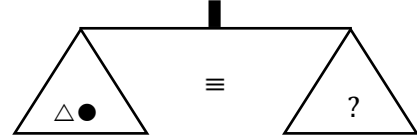
I.



II.



III.



Yukarıdaki terazilerin üçü de dengede olduğuna göre, III. terazide soru işareti aşağıdakilerden hangisini göstermektedir?

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ما الشكل المناسب لوضعه بدلاً من أداة الاستفهام الموجودة في الميزان الثالث، إذا ما كانت الموازين الثلاثة الواردة أعلاه متساوية؟

A) ○

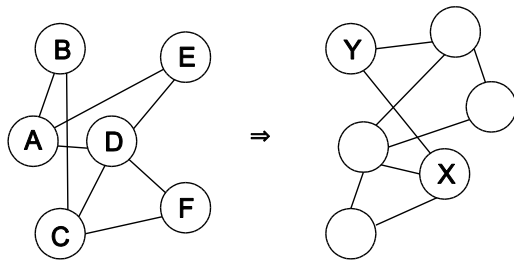
B) ○○

C) ○○○

D) ○●

E) ●●

20.


 $\Rightarrow X; Y = ?; ?$

A) E ; B

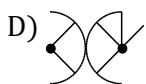
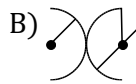
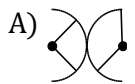
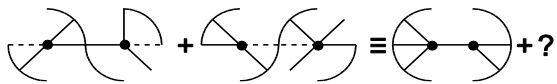
B) A ; E

C) B ; F

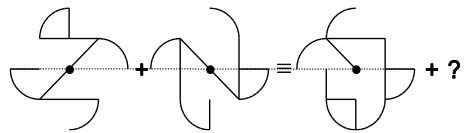
D) C ; E

E) A ; B

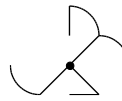
21.



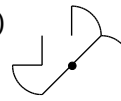
22.



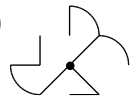
A)



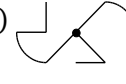
B)



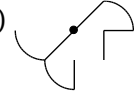
C)



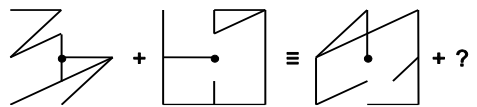
D)



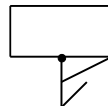
E)



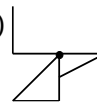
23.



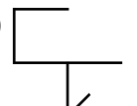
A)



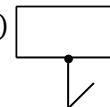
B)



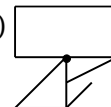
C)



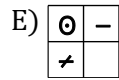
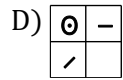
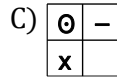
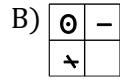
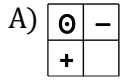
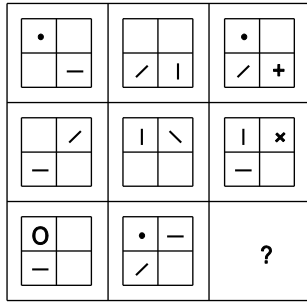
D)



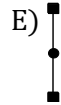
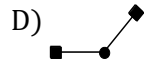
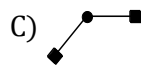
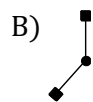
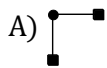
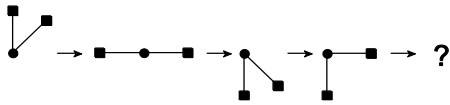
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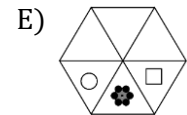
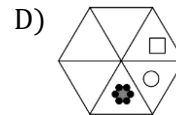
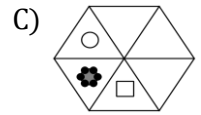
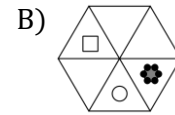
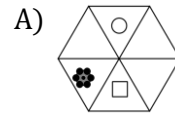
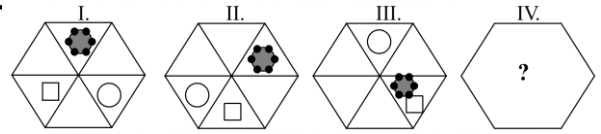
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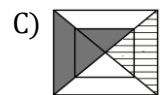
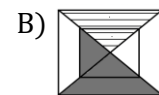
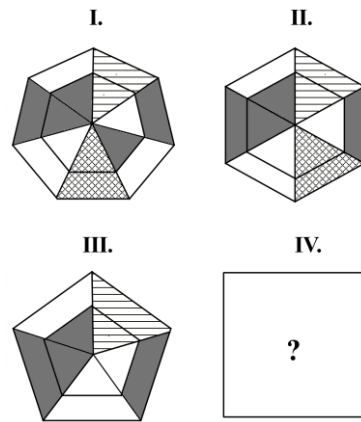
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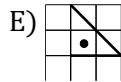
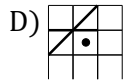
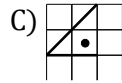
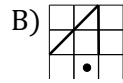
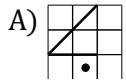
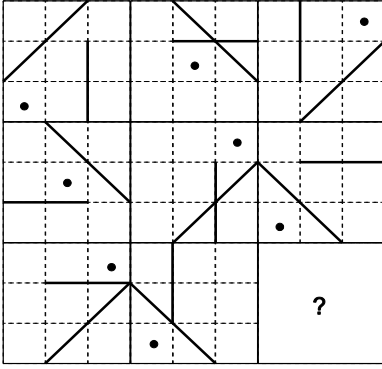
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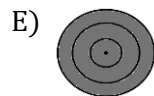
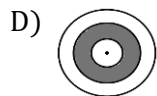
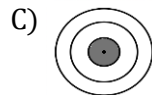
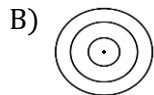
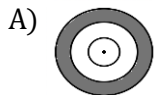
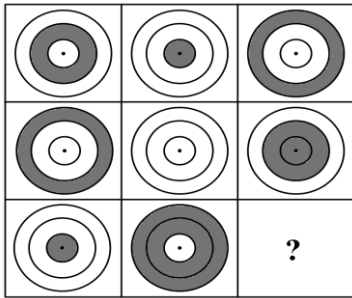
27.



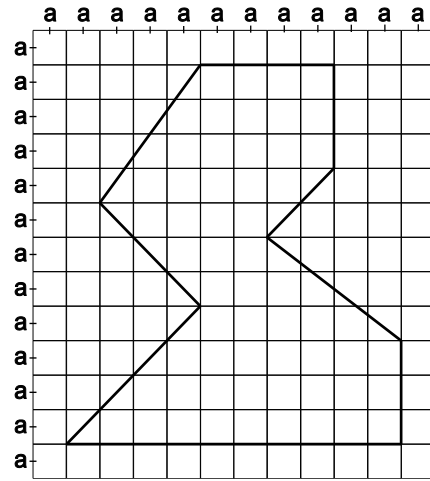
28.



29.



30.



⇒ Çevre/Perimeter/периметр/محيط = ? a

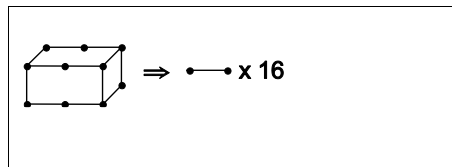
A) 30

B) $30\sqrt{2}$ C) $27 + 9\sqrt{2}$

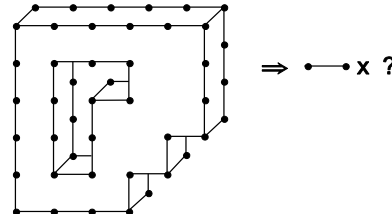
D) 27

E) $30 + 9\sqrt{2}$

Örnek / Example / Beispiel / Пример / مثال



31.



A) 71

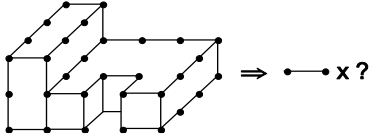
B) 72

C) 73

D) 74

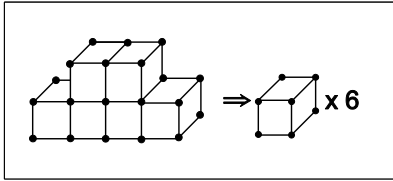
E) 75

32.

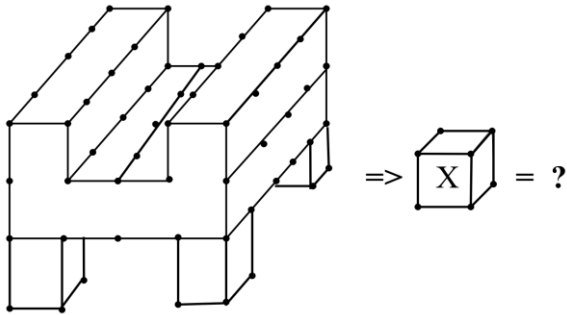


- A) 53 B) 54 C) 55 D) 56 E) 57

Örnek / *Example* / Beispiel / *Пример* / مثال



33.



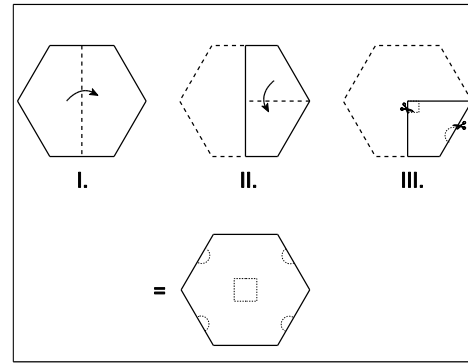
- A) 28 B) 40 C) 32 D) 34 E) 46

34.

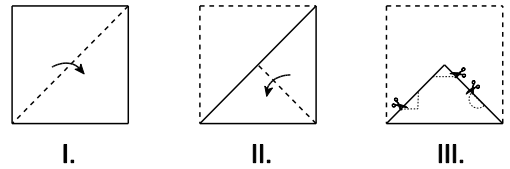
1 3 10 41 ? 1237

- A) 202 B) 206 C) 204 D) 200 E) 208

Örnek / *Example* / Beispiel / *Пример* / مثال

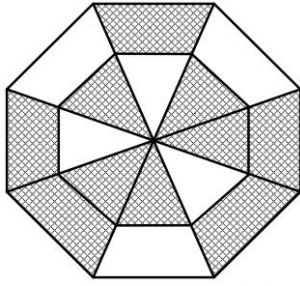


35.



- A) B) C)
D) E)

36.



Şeklin yüzde kaç gölgelidir?

What percentage of the figure is shaded?

Wie viel Prozent von Sheklin ist schattig?

Какой процент Шеклина темнеет?

ما نسبة شيكلن غامضة؟

A) $\frac{5}{9}$

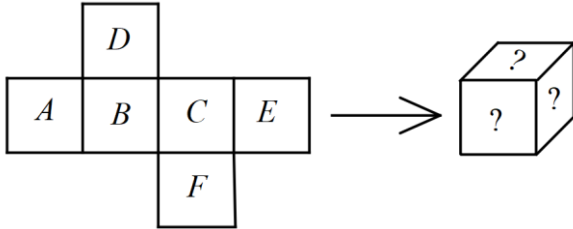
B) $\frac{8}{5}$

C) $\frac{5}{8}$

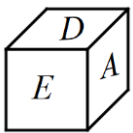
D) $\frac{9}{8}$

E) $\frac{9}{5}$

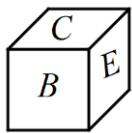
37.



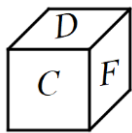
A)



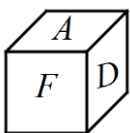
B)



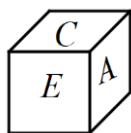
C)



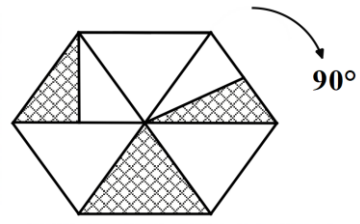
D)



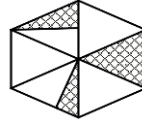
E)



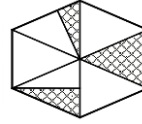
38.



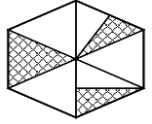
A)



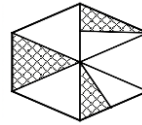
B)



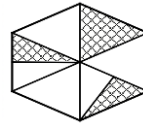
C)



D)



E)



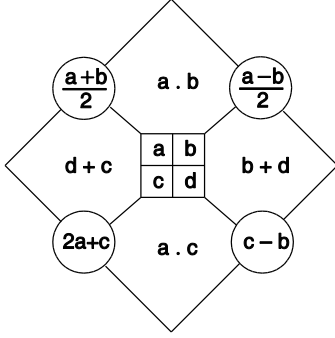
Her soru birbirinden bağımsız cevaplanacaktır. (39-41)

Each question is to be answered independently. (39-41)

Alle Fragen müssen unabhängig voneinander beantwortet werden. (39-41)

Задания решать в не зависимости друг от друга. (39-41)

اجب على الأسئلة بشكل مستقل (41-39)



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.

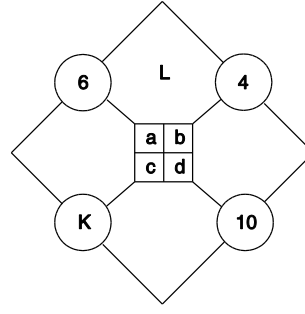
In the figure above, a, b, c ve d stand for four positive integers and various operations concerning these integers are shown. The numerical value of the letters may change from question to question.

a, b, c und d sind vier positive Zahlen. Die Figur besteht aus einigen Rechnungen, die mit diesen Zahlen gemacht wurden. Die Zahlen, die für eine Zahl stehen, können bei jeder Frage anders sein.

На приведенной выше фигуре a, b, c и d четыре натуральных числа и эти буквы расположены в соответствии с различными операциями. Численные значения букв могут меняться в каждом вопросе.

في الشكل أعلاه الحرف d, c, b, a تمثل اربع ارقام موجبة تم القيام بعمليات حسابية بينها. قيمة الحرف قد تختلف من سؤال الى آخر

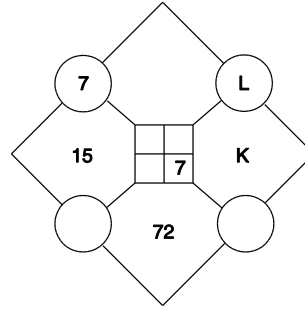
39.



$$\Rightarrow K+L = ?$$

- A) 53 B) 52 C) 51 D) 50 E) 49

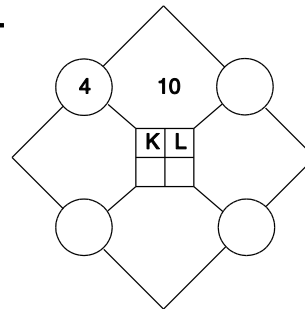
40.



$$\Rightarrow K+L = ?$$

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

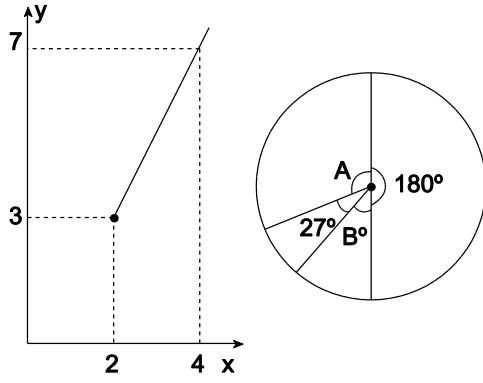
41.



$$\Rightarrow K^2 + L^2 = ?$$

- A) 24 B) 28 C) 44 D) 48 E) 84

42.



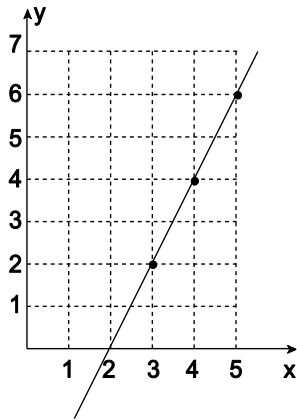
$$x = 23,$$

$$y = B,$$

$$\Rightarrow A = \% ?$$

- A) 30 B) 60 C) 70 D) 75 E) 80

43.



$$x = 58$$

$$\Rightarrow y = ?$$

- A) 110 B) 112 C) 114 D) 116 E) 118

44.

$$\begin{array}{r|l} \text{abcabc10} & \text{abc} \\ \hline & \text{B} \end{array} \Rightarrow K+B = ?$$

$$\underline{\quad\quad\quad} \quad K$$

- A) 100110 B) 10110 C) 100011
D) 1000110 E) 1110

45.

$$\begin{array}{r} K \ K \ L \\ + \ M \ M \ K \\ \hline L \ N \ L \ M \end{array}$$

$$\Rightarrow K + L + M + N = ?$$

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

46. $\frac{9}{8 + \frac{9}{8 + \frac{9}{\ddots}}} - \frac{8}{16 - \frac{64}{16 - \frac{64}{\ddots}}} = ?$

- A) -2 B) -1 C) 0 D) 1 E) 3

47. $\frac{1}{56} + \frac{1}{72} + \frac{1}{90} = ?$

- A) $\frac{1}{32}$ B) $\frac{3}{56}$ C) $\frac{1}{12}$
 D) $\frac{3}{70}$ E) $\frac{7}{90}$

48. $\frac{4 + \frac{1}{2}}{1 - \frac{1}{4}} - \frac{1}{2} = ?$

- A) $\frac{9}{2}$ B) $\frac{11}{2}$ C) 5
 D) 6 E) $\frac{13}{2}$

49. $x < 0 \Rightarrow$

$$\sqrt{x^2 - 2x + 1} + \sqrt{x^2} - \sqrt[3]{-x^3} = ?$$

- A) $1 - x$ B) $1 + x$ C) $-1 + x$
 D) $-1 - x$ E) 0

50. $\frac{2}{\sqrt{3}-\sqrt{2}} + \frac{1}{3+\sqrt{8}} - \frac{2}{2-\sqrt{3}} = ?$

- A) 2 B) $\frac{1}{2}$ C) 1
D) 0 E) -1

51. $x, y \in \mathbb{Z}$
 $x\sqrt{5} + y\sqrt{5} = 3x - 2y + 20$
 $\Rightarrow x = ?$

- A) 20 B) 10 C) 0 D) -4 E) -20

52. $a \neq b$
 $\frac{a}{b} = \frac{bx+4}{ax+4}$
 $\Rightarrow x = ?$

- A) $4ab$ B) $\frac{a-b}{4}$ C) $-\frac{4}{a+b}$
D) $\frac{4}{a+b}$ E) $\frac{4}{a-b}$

53. $\frac{a}{2} = \frac{b}{7} = \frac{c}{3}$
 $2a - b + 3c = 24$
 $\Rightarrow b = ?$

- A) 6 B) 28 C) 12 D) 24 E) 8

54. $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \frac{1}{2}$

$$\left. \begin{array}{l} 2a + 3c - 2e = 7 \\ 2b - 2f = 5 \end{array} \right\} \Rightarrow d = ?$$

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

55. $-(-a)^2 \cdot (-a)^3 \cdot (a)^{-8} \cdot (-a)^5 = ?$

A) $-a^2$ B) $-a$ C) $-a^{-2}$ D) a E) a^2

56. $\frac{64^x - 16^x}{8^x + 4^x} = 4^x \Rightarrow x = ?$

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

57. $f(x) = x^2 - (2 - \sqrt{2})x - \sqrt{8}$

$$f(x_1) = f(x_2) = 0$$

$$\Rightarrow x_1^3 + x_2^3 = ?$$

A) $2\sqrt{2}$ B) $2\sqrt{2} + 1$ C) $\sqrt{2} + 3$
D) $8 - 2\sqrt{2}$ E) $16 - \sqrt{2}$

58. $\log_2 3 \cdot \log_3 4 \cdot \log_4 5 \cdot \dots \cdot \log_{63} 64 = ?$

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

59. $\frac{\log 8 + 3}{\log 20} = ?$

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

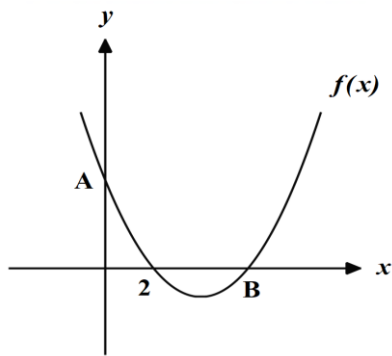
60. $\lim_{x \rightarrow 3} \frac{x^2 + ax - 6}{x^2 - 2x - 3} = m, \quad m \in \mathbb{R} \Rightarrow m = ?$

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

61. $\lim_{x \rightarrow 0} \frac{\sqrt{x+2} - \sqrt{2}}{x} = ?$

- A) $\frac{\sqrt{2}}{2}$ B) $\sqrt{2}$ C) $\frac{\sqrt{2}}{4}$
D) 0 E) $2\sqrt{2}$

62.



$$f(x) = x^2 - 7x + m$$

$$\Rightarrow |AB| = ?$$

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

$$63. \quad 6f\left(\frac{x}{7}\right) = f\left(\frac{7}{x}\right) + 3x + a$$

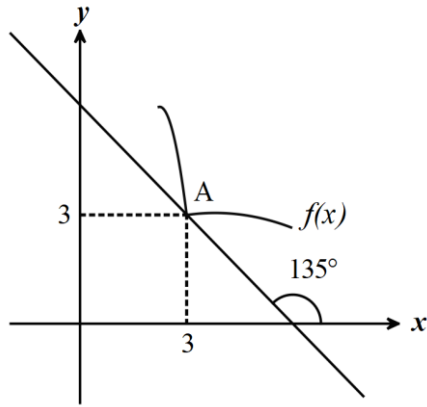
$$f(1) = 5 \Rightarrow a = ?$$

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

$$64. \quad \left. \begin{array}{l} y = f(x) \\ 3xy + 2x - y + 7 = 0 \end{array} \right\} \Rightarrow f'(2) = ?$$

- A) 1 B) $\frac{23}{25}$ C) $-\frac{43}{25}$
 D) $\frac{43}{25}$ E) $-\frac{23}{25}$

65.



$$g(x) = \frac{x^3}{f(x+1)}$$

$$g'(2) = ?$$

- A) $\frac{12}{5}$ B) $\frac{23}{9}$ C) $\frac{17}{16}$
 D) $\frac{44}{9}$ E) $\frac{43}{27}$

$$66. \sum_{m=3}^{43} \left(\prod_{n=2}^{27} n \right) = A \cdot 5^x \Rightarrow \max(x) = ?$$

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

$$67. \int_0^{\pi} \sin^2 x dx = ?$$

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

$$68. \int \frac{4}{x} d(x^3 - 1) = ?$$

- A) $2x^3 + c$ B) $12x^2 + c$ C) $6x^2 + c$
 D) $\frac{x^2}{2} + c$ E) $6x + c$

69. $i^2 = -1$

$$z = x + yi$$

$$(2 + 3i) \cdot z = \bar{z} - 2 \Rightarrow z = ?$$

A) $\frac{-1+i}{2}$

B) $\frac{-3+3i}{2}$

C) $1+i$

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

E) $\frac{2-i}{2}$

70. $\frac{\arctan\left(\tan\frac{\pi}{3}\right)}{2} = ?$

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

B) $-\frac{\pi}{3}$

C) $\frac{\pi}{3}$

D) $\frac{\pi}{6}$

E) π

71. $13x = \pi \Rightarrow \frac{\cos 7x + \cos 3x}{2 \cos 2x \cos 8x} = ?$

A) $\sqrt{3}$

B) 1

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

D) $-\frac{1}{3}$

E) -1

72. $x \begin{bmatrix} 2 \\ 1 \end{bmatrix} - y \begin{bmatrix} -3 \\ 4 \end{bmatrix} = \begin{bmatrix} 7 \\ -13 \end{bmatrix}$
 $\Rightarrow y - x = ?$

A) 4

B) 3

C) 0

D) -3

E) -4

73.

$$\begin{array}{r|l} A & 12 \\ \hline 0 & \end{array} \quad \begin{array}{r|l} A & 18 \\ \hline 0 & \end{array} \quad \begin{array}{r|l} A & 20 \\ \hline 0 & \end{array}$$

$$\Rightarrow \min(A) = ?$$

- A) 120 B) 160 C) 180 D) 240 E) 360

74. $P(x) = ax^3 + bx^2 + cx + d,$

$$P(2) = P(3) = P(4) = 0,$$

$$P(5) = 12 \Rightarrow P(1) = ?$$

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

75.

$$x, y \in \mathbb{Z}^+,$$

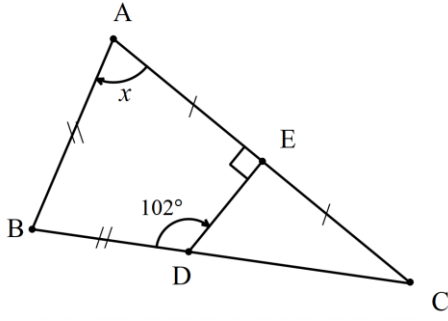
$$x + y = 3,$$

$$3|x - y| - a|y - x| = 5,$$

$$\Rightarrow a = ?$$

- A) -3 B) -2 C) -1 D) 0 E) 2

76.



$$|AB| = |BD|, |AE| = |EC|$$

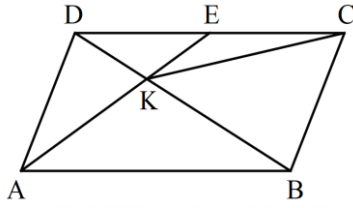
$$m(\widehat{BDC}) = 102^\circ$$

$$m(\widehat{AED}) = 90^\circ$$

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

- A) 36 B) 42 C) 48 D) 54 E) 63

77.



$$[AB] \parallel [DC]$$

$$[AD] \parallel [BC]$$

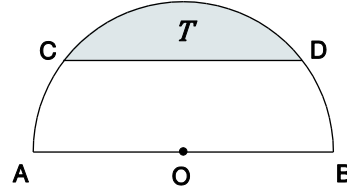
$$|DE| = |EC|$$

$$A(ABCD) = 48 br^2$$

$$\Rightarrow A(KCB) = ? br^2$$

- A) 8 B) 9 C) 12 D) 16 E) 24

78.



"O" Çemberin merkezi

"O" The center of the circle

"O" Центр круга

في مركز الدائرة "O"

$$|AO| = |OB|$$

$$|AB| = 8 br$$

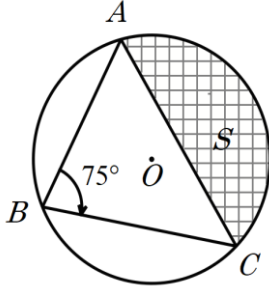
$$|CD| = 4\sqrt{3} br$$

$$\Rightarrow T = ? br^2$$

- A) $\frac{16\pi}{3} - 4\sqrt{3}$ B) $\frac{20\pi}{3} - 8\sqrt{3}$ C) $16\pi - 8\sqrt{3}$

- D) $\frac{40\pi}{3} - 4\sqrt{3}$ E) $8\pi - 4\sqrt{3}$

79.



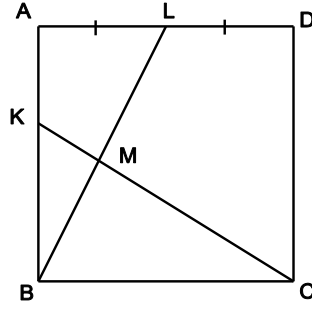
$$m(\widehat{ABC}) = 75^\circ$$

$$|AO| = 6$$

$$\Rightarrow S = ?$$

- A) $10\pi - 6$ B) $10\pi + 6$ C) $15\pi - 6$
 D) $15\pi - 12$ E) $15\pi - 9$

80.



(ABCD) Kare /Square/ *Квадрат* / *ساحة*

$$[BL] \cap [CK] = \{M\}$$

$$|AL| = |LD|$$

$$2. |LM| = 3. |BM|$$

$$\Rightarrow \frac{|MC|}{|KM|} = ?$$

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

Test Bitti / End of Test

GENEL AÇIKLAMA

- Bu sınavdaki soruların nasıl cevaplanacağı kitapçığın ön kısmında açıklanmıştır. Soruları cevaplamaya başlamadan önce bu açıklamaları dikkatle okuyunuz.
- Bu testlerdeki her sorunun cevabı, cevap kâğıdındaki ilgili yere işaretlenecektir.
- Bu testlerdeki her sorunun bir tek doğru cevabı vardır. Bir soru için birden fazla cevap şıkkı işaretlenmişse, soru yanlış cevaplanmış sayılacaktır.
- Cevaplarınızı koyu siyah ve yumuşak bir kurşun kalemle işaretleyiniz. İşaretlerinizi cevap yerinin dışına taşırmayınız. Tükenmez ya da mürekkepli kalem kullanmayınız.
- Cevap kâğıdınızı buruşturmayınız, katlamayınız ve üzerine gereksiz hiçbir işaret koymayınız.
- Değiştirmek istediğiniz bir cevabı, yumuşak bir silgiyle, cevap kâğıdını örselemeden, temizce siliniz ve yeni cevabınızı işaretlemeyi unutmayınız.
- Bu testler puanlanırken, doğru cevaplarınızın sayısı ham puanlarınız olacak olup, yanlış cevaplarınız puanlarınızı etkilemeyecektir.
- Soru kitapçığının sayfalarında uygun gördüğünüz boşlukları müsvedde için kullanabilirsiniz.
- Sınav süresi 120 dakikadır.

نظرة عامة

- التعليمات حول كيفية الإجابة عن الأسئلة تظهر في بداية كتيب الأسئلة ، اقرأها بعناية لو سمحت
- لكل سؤال املأ المكان المناسب في ورقة الإجابة
- في هذا الامتحان هناك إجابة واحدة صحيحة إذا وضعت أكثر من إشارة فسوف يعتبر هذا السؤال خطأ بشكل تلقائي
- يجب أن تستخدم قلماً رصاصاً للإشارة على ورقة الأجوبة . املأ المكان المخصص كاملاً ، لا نشر خارجه ولا تستخدم قلماً حبراً جافاً.
- حافظ على ورقة الإجابة مسطحة ولا تطوي الورقة ، لا تكتب أي إشارة غير ضرورية.
- إذا إردت أن تغير إجابتك تأكد من مسح الإجابة الخاطئة بشكل كامل بممحاة طرية ، ولا تنسى أن تشير إلى الإجابة الصحيحة.
- في درجة الامتحان سيتم احتساب الإجابة الصحيحة ولن تؤثر الإجابة الخاطئة في النتيجة
- يمكن أن تستخدم الأماكن الفارغة من كتيب الأسئلة للأعمال الصعبة (مسودة).
- مدة الامتحان 120 مئة وعشرون دقيقة.

GENERAL INSTRUCTIONS

- The instructions on how to answer the test appear at the beginning of the test booklet. Please read these carefully before beginning.
- For each question, fill in the appropriate place on the answer sheet.
- In these tests, there is only one correct answer for each question. If more than one alternative is marked, that answer will automatically be counted as wrong answer.
- You should use a soft, black pencil to mark the answer sheet. Fill in the whole of the place provided, but do not mark outside. Do not use pen or a ball point.
- Keep the answer sheet flat and do not fold it. Do not make any unnecessary marking on it.
- If you wish to change an answer, make sure to erase the wrong answer completely with a very soft eraser. Do not forget to mark your new answer.
- In the scoring of the test, the correct answers will be your raw score. The wrong answers will not affect your scores.
- You can use the blank areas in the test booklet for any rough work.
- The exam duration is 120 minutes.

ОБЩЕЕ ОПИСАНИЕ

- Инструкция для ответа на вопросы данного экзамена описана в начале данного тестирования. Прежде чем отвечать на данные вопросы, пожалуйста, внимательно ознакомьтесь с данной инструкцией
- Ответ на каждый вопрос данного тестирования необходимо отметить на листе ответов в соответствующем месте.
- Каждый вопрос имеет только один правильный ответ. Если для одного вопроса будет обозначено несколько мест, то данный ответ будет считаться неправильным.
- Ответы на вопросы обозначайте черным и мягким простым карандашом. При означении не переходите за грани места обозначения. Не используйте шариковую ручку или ернила.
- Не мните, не складывайте лист для ответов и не обозначайте на нем какие-либо лишние обозначения.
- Если вы хотите поменять ответ, сотрите аккуратно его при помощи мягкой резинки, не помяв лист, и не забудьте пометить новый ответ.
- При оценке данного теста количество ваших правильных ответов будет предварительным балом, не правильные ответы не будут влиять на ваш общий бал.
- Пустые места, имеющиеся на страничках справочника экзаменационных вопросов можете использовать в качестве черновика
- Продолжительность экзамена 120 минут.