

Deneme Sınavı
Trial Exam

12

ÇÖZÜMLER

TAMAMI VIDEO ÇÖZÜMLÜ

VIDEO ÇÖZÜM UYGULAMASI İÇİN



ÇÖZÜMLER

1. $2^x = 81$, $3^y = 32$, $x.y = ?$

$$\begin{array}{r} 2^x = 3^4 \\ \times \quad 3^y = 2^5 \\ \hline 2^x \cdot 3^y = 3^4 \cdot 2^5 \\ x = 5.y = 4 \\ x.y = 5.4 = 20 \end{array}$$

* Kural!

$$\begin{array}{l} 2^x = 3^y \\ 2^a = 3^b \text{ olsun.} \\ x.b = a.y \text{ dir.} \end{array}$$

Cevap: D

2. $\frac{2}{\sqrt{3}} - \frac{1}{2\sqrt{3}} - \sqrt{3} = ? = \textcircled{A}$

Her taraf $\sqrt{3}$ ile çarpılsın.

$$\begin{array}{l} 2 - \frac{1}{2} - 3 = A\sqrt{3} \\ -\frac{1}{2} - 1 = A\sqrt{3} \\ -\frac{\sqrt{3}}{2} = A\sqrt{3} \\ \frac{-\sqrt{3}}{2} = A \end{array}$$

Cevap: C

3. $\frac{0,01 + 0,03 - 0,2}{0,2 - 0,01}$

$$= \frac{0,04 - 0,20}{0,20 - 0,01}$$

$$= \frac{-0,16}{0,19} = -\frac{16}{19}$$

Cevap: A

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

$$120.y = x^2$$

$$2.2.2.3.5.y = x^2$$

$$y = 2.3.5 = 30 \Rightarrow 2^2 \cdot 2^2 \cdot 3^2 \cdot 5^2 = x^2$$

$$x = 2.2.3.5 = 60$$

$$(2.2.3.5)^2 = x^2$$

$$x + y = 30 + 60 = 90$$

en az

Cevap: D

5. $2^x + 2^{x+1} + 2^{x+2} = 112$

$$2^x + 2^x \cdot 2 + 2^x \cdot 4 = 112$$

$$2^x(1 + 2 + 4) = 112$$

$$2^x \cdot 7 = 112$$

$$2^x = 16$$

$$2^x = 2^4$$

$$x = 4$$

Cevap: D

6. $A = 4a + 1 = 5b + 2 = 6c + 9$

Her tarafa +3 eklenirse;

$$A + 3 = 4a + 4 = 5b + 5 = 6c + 12$$

$$A + 3 = \underbrace{4(a + 1) = 5(b + 1) = 6(c + 2)}_{[4, 5, 6] = 60 \text{ (ekok)}}$$

$$[4, 5, 6] = 60 \text{ (ekok)}$$

$$A + 3 = 60$$

$$A = 57$$

Cevap: C

7. $x.y = 3$

$$\times \quad y.z = 4$$

$$\frac{x.z.y^2 = 12}{2}$$

$$y^2 = 6$$

$$y = \sqrt{6}$$

Cevap: D

8. $a, b, c \in \mathbb{Z}^+$

$a = b + c$

$b^3 = b + 3b$

$b^2 = 4$

$b = \pm 2 \Rightarrow +2$

$a + b + c = 2^3 + 2 + 6 = 8 + 8 = 16$

Cevap: A

9. $\frac{x}{3} = \frac{y}{5} = k$

$x = 3k, y = 5k$

$3x + 4y = 116$

$3.3k + 4.5k = 116$

$9k + 20k = 116$

$29k = 116$

$k = 4$

$y - x = 5k - 3k = 2k = 8$

Cevap: B

10. $\frac{7}{1+a^x} + \frac{1}{1+a^{-x}} = A$

$\frac{6}{1+a^x} + \frac{1}{1+a^x} + \frac{1}{1+\frac{1}{a^x}} = A$

$\frac{6}{1+a^x} + \frac{1+a^x}{1+a^x} = A$

$\frac{6}{1+a^x} = A - 1$ 'dir.

$$* \frac{13}{1+a^x} + \frac{1}{1+\frac{1}{a^x}} = \frac{6}{1+a^x} + \frac{7}{1+a^x} + \frac{a^x}{a^x+1}$$

$$= A - 1 + A$$

$$= 2A - 1$$

Cevap: B

11. $2^x = 3^y \Rightarrow 8^{\frac{x}{y}} = ?$

$$(2^3)^{\frac{x}{y}} = (2^x)^{\frac{3}{y}}$$

$$= (3^y)^{\frac{3}{y}} = 3^3 = 27$$

Cevap: C

12. $\frac{(x-1)(x-2)}{x^2+mx+n} = \frac{x-1}{x+3}$

$(x-2)(x+3) = x^2 + mx + n$

$m = -2 + 3 = 1$

$n = (-2)(3) = -6$

$m + n = 1 - 6 = -5$

Cevap: E

13. $x^2 + x + 1 = 0 \quad x + 1 = -x^2$

$(x+1)^2 - x = 0 \Rightarrow x+1 = -x^2$

$(x+1)^{2 \cdot 2016} = x^{2016}$

$(-x^2)^{2 \cdot 2016} = x^{2016}$

$x^{4 \cdot 2016} = x^{2016}$

$x^{\frac{3 \cdot 2016}{3}} = 1^{\frac{1}{3}}$

$x^{2016} = 1$

Cevap: B

14. $\frac{n(n-1)(n-2)! + (n-1) \cdot (n-2)!}{(n-1)(n-2)! + (n-2)!}$

$= \frac{(n-2)! \cdot (n \cdot (n-1) + (n-1))}{(n-2)! \cdot (n-1+1)}$

$= \frac{n^2 - n + n - 1}{n} = \frac{n^2 - 1}{n} = n - \frac{1}{n}$

Cevap: D

15. $(a - b)^2 + 4ab = a^2 + b^2 - 2ab + 4ab$
 $= a^2 + b^2 + 2ab = (a + b)^2$
 $(a + b)^2 = (8,324 + 1,676)^2 = (10,000)^2 = (10)^2 = 100$
Cevap: A

16. $f(x) = 3^{x+1} - 1 = 3^x \cdot 3 - 1$
 $f(2x) = 3^{2x} \cdot 3 - 1 = (3^x)^2 \cdot 3 - 1$
 $f(x) = 3^x \cdot 3 - 1$
 $\frac{f(x)+1}{3} = 3^x \rightarrow \left(\frac{f(x)+1}{3}\right)^2 \cdot 3 - 1$
 $= \frac{f^2(x) + 1 + 2f(x)}{3} \cdot 3 - 1$
 $= \frac{f^2(x) + 2f(x) + 1 - 3}{3}$
 $= \frac{f^2(x) + 2f(x) - 2}{3}$

Cevap: D

17. $f(x-1)$
 $f(4), f(5)$ için
 x 'e 5 ve 6 verilmeli
5 için, $\frac{x+1}{2}$;
6 için $x^2 - 1$ kullanılmalı.
 $f(4) = \frac{5+1}{2} = \frac{6}{2} = 3$
 $f(5) = 6^2 - 1 = 36 - 1 = 35$
 $f(4) + f(5) = 3 + 35 = 38$

Cevap: C

18. $f\left(\frac{x+1}{x}\right) = \frac{2x}{x-1}$
 $f^{-1}\left(\frac{2x}{x-1}\right) = \frac{x+1}{x}$
 \downarrow
 $\frac{2x}{x-1} = 3 \quad \frac{3+1}{3} = \left(\frac{4}{3}\right)$
 $2x = 3x - 3$
 $(3 = x)$
 $g\left(\frac{2}{x}\right) = \frac{x+1}{x}$
 $\frac{2}{x} = 1 \Rightarrow x = 2$ alınır. $g(1) = \frac{2+1}{2} = \frac{3}{2}$
 $f^{-1}(3) + g(1) = \frac{4}{3} + \frac{3}{2} = \frac{8+9}{6} = \frac{17}{6}$

Cevap: C

TASARI EĞİTİM YAYINLARI

19. $(x - 2) \cdot P(x) = x^2 - x + a$
 $x = 2$ için
 $0 \cdot P(2) = 4 - 2 + a$
 $2 + a = 0$
 $(a = -2)$
 $P(x) = \frac{x^2 - x - 2}{x - 2} = \frac{(x-2)(x+1)}{x-2}$

$P(x) = x + 1$
 $(x - 6) \cdot B(x) + C(x) = P(x)$
 $(x - 6) \cdot B(x) + C(x) = x + 1$
 $(x = 7)$
 $(7 - 6) \cdot B(x) + C(x) = 7 + 1$
 $B(x) + C(x) = 8$

Cevap: E

$$20. \begin{aligned} A &= \{x \mid x \in \mathbb{Z}^+ \quad x = 3k, \quad x \leq 60\} \\ B &= \{x \mid x \in \mathbb{Z}^+ \quad x = 4k \quad x \leq 60\} \end{aligned}$$

$$A = \{3, 6, \dots, 60\}$$

$$B = \{4, 8, \dots, 60\}$$

$$A \cap B = \{12, 24, 36, 48, 60\}$$

$$s(A \cap B) = 5$$

Cevap: B

$$21. f(x) = x^2 - x + 3$$

$$x_1 \cdot x_2 = 3$$

$$x_1 + x_2 = -1$$

$$(x_1 + x_2)^2 = x_1^2 + x_2^2 + \frac{2x_1x_2}{3} = 1$$

$$x_1^2 + x_2^2 + 6 = 1$$

$$x_1^2 + x_2^2 = -5$$

$$x_1^{-2} + x_2^{-2} = \frac{1}{x_1^2} + \frac{1}{x_2^2} = \frac{x_2^2 + x_1^2}{(x_1x_2)^2} = -\frac{5}{3^2} = -\frac{5}{9}$$

Cevap: A

$$22. 3^1 \equiv 3 \pmod{5}$$

$$3^2 \equiv 4 \pmod{5}$$

$$3^3 \equiv 2 \pmod{5}$$

$$3^4 \equiv 1 \pmod{5}$$

$$3^{4k+21} = \underbrace{(3^4)^k}_{1} \cdot \underbrace{(3^4)^5}_{1} \cdot 3^1 \equiv 3 \pmod{5}$$

Cevap: D

$$23. x < 0$$

$$|x| - |-2x| + |-3x|$$

$$= -x - (-2x) + (-3x)$$

$$= -x + 2x - 3x = -2x$$

Cevap: C

$$24. \sin x + \cos x = \frac{\sin^2 x + \cos^2 x}{1} + \frac{2\sin x \cos x}{\sin 2x}$$

$$\frac{3}{4} = 1 + \sin 2x$$

$$\sin 2x = \frac{3}{4} - 1 = \frac{3-4}{4} = -\frac{1}{4}$$

Cevap: B

$$25. \log(x+y) = \log x + \log y = \log(x \cdot y)$$

$$\log(x+y) = \log(x \cdot y)$$

$$x + y = x \cdot y$$

$$x = xy - y$$

$$x = y(x-1)$$

$$\frac{x}{x-1} = y$$

Cevap: C

$$26. 2\log x + \frac{1}{2}\log y - 3\log z = \log A$$

$$\log x^2 + \log y^{\frac{1}{2}} - \log z^3 = \log A$$

$$\log \frac{x^2 \cdot y^{\frac{1}{2}}}{z^3} = \log A$$

$$A = \frac{x^2 \cdot \sqrt{y}}{z^3}$$

Cevap: D

$$27. z \cdot \bar{z} + i\bar{z} = x + yi + 4 + 3i$$

$$(x + yi)(x - yi) + i(x - yi) = x + 4 + (y + 3)i$$

$$\underbrace{x^2 + y^2}_{x^2 + y^2} + \underbrace{xi + y}_{xi + y} = \underbrace{x + 4}_{x + 4} + \underbrace{(y + 3)i}_{(y + 3)i}$$

$$x = y + 3$$

$$x - y = 3$$

Cevap: A

$$28. z = \frac{(3+4i)^2 \cdot (2\sqrt{3}-2i)}{-3+3\sqrt{3}i}$$

$$z = \frac{(\sqrt{(3^2+4^2)})^2 \cdot \sqrt{(2\sqrt{3})^2+(-2)^2}}{\sqrt{(-3)^2+(3\sqrt{3})^2}}$$

$$z = \frac{5^2 \cdot 4}{6} = \frac{50}{3}$$

Cevap: B

$$29. z = \cos 30^\circ + i \cdot \sin 30^\circ = \text{cis} 30^\circ$$

$$z = \text{cis} 30^\circ \cdot 50 = \text{cis} 1500 = \text{cis} 60^\circ$$

$$\text{cis} 60^\circ = \cos 60^\circ + i \cdot \sin 60^\circ = \frac{1}{2} + i \cdot \frac{\sqrt{3}}{2}$$

Cevap: B

30.

$$\lim_{x \rightarrow \infty} \frac{\sqrt{x^2-2x+3} - \sqrt{x^2-4x+1}}{\sqrt{x^2-2x+3} + \sqrt{x^2-4x+1}} \cdot (\sqrt{x^2-2x+3} + \sqrt{x^2-4x+1})$$

$$= \frac{x^2-2x+3 - (x^2-4x+1)}{2|x|} = \frac{x^2-2x+3-x^2+4x-1}{2x}$$

$$= \frac{(2x)+2}{(2x)}$$

$$= \frac{2}{2} = 1$$

II. Yol

$$\lim_{x \rightarrow \mp\infty} \sqrt{ax^2+bx+c} = \sqrt{a} \cdot \left| x + \frac{b}{2a} \right|$$

$$\lim_{x \rightarrow \infty} \sqrt{1} \cdot \left| x - \frac{2}{2 \cdot 1} \right| - \sqrt{1} \cdot \left| x - \frac{4}{2 \cdot 2} \right|$$

$$\lim_{x \rightarrow \infty} \sqrt{1} \cdot |x-1| - |x-2|$$

$$= x-1-x+2$$

$$= 1$$

Cevap: E

31. Hatırlatma:

$$\lim_{x \rightarrow \infty} (1 + f(x))^{\frac{1}{f(x)}} = e^{\lim_{x \rightarrow \infty} f(x) \cdot f(x)}$$

$$\lim_{x \rightarrow \infty} \left(1 + \frac{4}{2x+1}\right)^{3x} = e^{\lim_{x \rightarrow \infty} 3x \cdot \frac{4}{2x+1}}$$

$$= e^{\frac{12x}{2x}} = e^6$$

Cevap: D

$$32. g(x)^l = e^x$$

$$g^l(0) = e^0 = 1$$

$$(f(1))^l = ?$$

$$f(x) = x^2 + 3x - 1$$

$$f'(x) = 2x+3$$

$$f'(1) = 2 \cdot 1 + 3 = 2 + 3 = 5$$

Cevap: D

$$33. f(x) = \ln(\sin^2(x))$$

$$f'(x) = \frac{2 \sin x}{\sin^2 x} \cdot \cos x$$

$$f'\left(\frac{\pi}{2}\right) = \frac{2 \cdot \sin 90^\circ}{\sin^2 90^\circ} \cdot \cos 90^\circ = \frac{2 \cdot 1 \cdot 0}{1^2} = 0$$

Cevap: A

$$34. \int_2^3 (x-2) dx = \left. \frac{x^2}{2} - 2x \right|_2^3$$

$$\frac{3^2}{2} - 2 \cdot 3 - \left(\frac{2^2}{2} - 2 \cdot 2 \right)$$

$$= \frac{9}{2} - 6 - (2 - 4) = \frac{9}{2} - 6 + 2$$

$$= \frac{9}{2} - 4 = \frac{9-8}{2} = \frac{1}{2}$$

Cevap: D

$$35. \sum_{k=1}^{\infty} \frac{2}{k^2 + 2k} = \sum_{k=1}^{\infty} \frac{1}{k} - \frac{1}{k+2} = \frac{1}{1} - \frac{1}{3}$$

$$\frac{A}{k(k+2)} + \frac{B}{k(k+2)} = \frac{2}{k^2 + 2k} \quad \frac{1}{2} - \frac{1}{4}$$

$$Ak + 2A + Bk = 2 \quad \frac{1}{3} - \frac{1}{5}$$

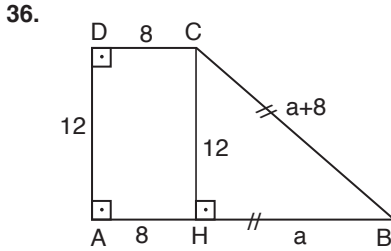
$$k(A+B) + 2A = 2 \quad \frac{1}{4} - \frac{1}{6}$$

$$A + B = 0, \quad 2A = 2 \quad +$$

$$1 + B = 0 \quad (A = 1) \quad \frac{1}{1} + \frac{1}{2} = \frac{3}{2}$$

$$(B = -1)$$

Cevap: B



Pisagordan CHB üçgeninde

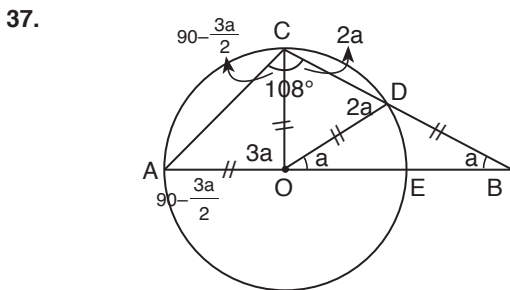
$$(12)^2 + (a)^2 = (a+8)^2$$

$$144 + a^2 = a^2 + 16a + 64$$

$$5 = a \text{ bulunur.}$$

$$\text{Yamuğun çevresi} = 12 + 13 + 13 + 8 = 46 \text{ olur.}$$

Cevap: A

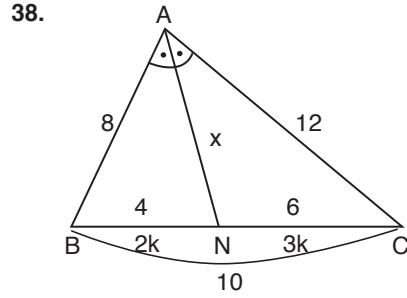


$$90 - \frac{3a}{2} + 2a = 108$$

$$180 - 3a + 4a = 216$$

$$a = 36$$

Cevap: C



$$2k + 3k = 10$$

$$5k = 10$$

$$k = 2$$

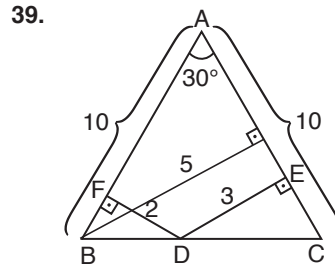
$$8 \cdot 12 - 4 \cdot 6 = x^2$$

$$96 - 24 = x^2$$

$$72 = x^2$$

$$6\sqrt{2} = x$$

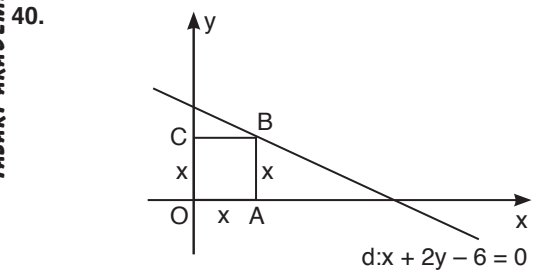
Cevap: B



$$A(ABC) = \frac{10 \cdot 5}{2} = 5.5 = 25$$

$$|AB| = |AC|$$

Cevap: E



OABC kare,

$$x + 2x - 6 = 0$$

$$3x - 6 = 0$$

$$3x = 6$$

$$x = 2$$

$$\text{Alan}(OABC) = 2 \cdot 2$$

$$= 4$$

Cevap: A

$$41. \quad 4 \times 3 = 12$$

$$5 \times 3 = 15$$

$$7 \times 3 = 21$$

$$9 \times 3 = 27$$

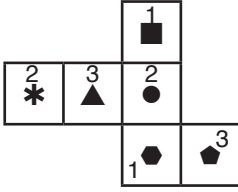
$$11 \times 3 = 33$$

(sayıların 3 katı)

Cevap: B

TASARI AKADEMİ YAYINLARI

42.



● → *

Cevap: A

43. $n^3 = 125$

$$n^3 = 5^3 \Rightarrow n = 5 \text{ (bir kenardaki küp sayısı)}$$

- Üç yüzü boyalı küp sayısı köşelerdeki küplerdir.

Küpün 8 köşesi olduğundan 8 tane

- İki yüzü boyalı küp sayısı:

$$12.(n - 2) = 12.(5 - 2)$$

$$= 12.3$$

$$= 36 \text{ tane}$$

- Bir yüzü boyalı küp sayısı:

$$6.(n - 2)^2 = 6.(5 - 2)^2$$

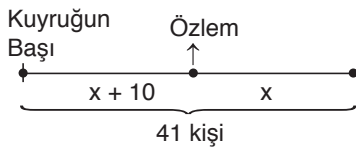
$$= 54 \text{ tane}$$

- Boyasız küp sayısı:

$$(n - 2)^3 = (5 - 2)^3 = 27 \text{ tane}$$

Cevap: B

44.



Özlem

$$x + 10 + \text{①} + x = 41$$

$$2x = 30$$

$$x = 15$$

Özlem baştan: $x + 10 + \text{kendisi}$

$$= 15 + 10 + 1$$

$$= 26. \text{ kişidir.}$$

Cevap: C

$$45. \frac{\boxed{a}}{\boxed{b}} * \frac{\boxed{c}}{\boxed{d}} = a.d + \frac{c}{3} - b^2$$

$$\frac{\boxed{5}}{\boxed{4}} * \frac{\boxed{9}}{\boxed{2}} = 5.2 + \frac{9}{3} - 4^2$$

$$= 10 + 3 - 16$$

$$= -3 \text{ bulunur.}$$

Cevap: B

$$46. \frac{\boxed{7}}{\boxed{2}} * \frac{\boxed{x}}{\boxed{4}} = 26 \Rightarrow x = ?$$

$$7.4 + \frac{x}{3} - 2^2 = 26$$

$$28 + \frac{x}{3} - 4 = 26$$

$$\frac{x}{3} = 26 - 24$$

$$\frac{x}{3} = 2$$

$$x = 6 \text{ olur.}$$

Cevap: D

47. (+) tablosuna göre

$$a + c = 16$$

$$b + b = b^2$$

(x) tablosuna göre,

$$b.a = 14$$

$$c = ?$$

$$\bullet 2b = b^2 \Rightarrow \boxed{2 = b}$$

$$\bullet b.a = 14 \Rightarrow 2.a = 14$$

$$\boxed{a = 7}$$

$$\bullet a + c = 16$$

$$7 + c = 16$$

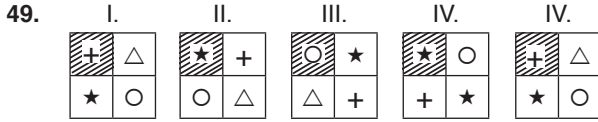
$$c = 9 \text{ bulunur.}$$

Cevap: B

48. 1. sütun, 2. sütunun üstüne konuluyor. Üst üste gelen görsel kayıp oluyor.

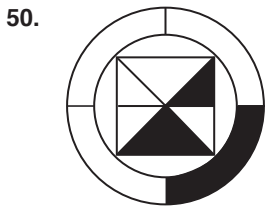


Cevap: C



Saat yönü bir kare ilerliyor.

Cevap: E

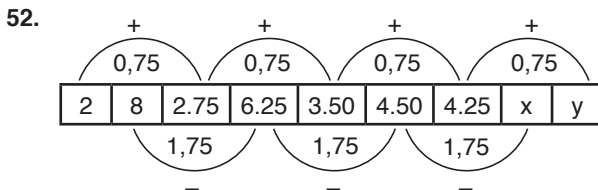


Cevap: C

51. 1, 5, 13, 29, 61, x
- 4 8 16 32 64

$x = 61 + 64 = 125$ bulunur.

Cevap: D



$$y = 4,25 + 0,75 = 5$$

$$x = 4,50 - 1,75 = 2,75$$

$$x + y = 2,75 + 5 = 7,75 \text{ bulunur.}$$

Cevap: E

53.

$$\begin{array}{r} 325 \longrightarrow 6.7 \\ \swarrow \quad \searrow \\ 3.2 = 6 \quad 2 + 5 = 7 \end{array}$$

$$\begin{array}{r} 417 \longrightarrow 4.8 \\ \swarrow \quad \searrow \\ 4.1 = 4 \quad 1 + 7 = 8 \end{array}$$

$$\begin{array}{r} 523 \longrightarrow 10.5 \\ \swarrow \quad \searrow \\ 5.2 = 10 \quad 2 + 3 = 5 \end{array}$$

$$\begin{array}{r} 124 \longrightarrow 2.6 \\ \swarrow \quad \searrow \\ 1.2 = 2 \quad 2 + 4 = 6 \end{array}$$

Cevap: B

54. I ve II'nin eşleşmelerinden
EKİN → 3412
E → 3, K → 4, İ → 1 ve N → 2
ENİK → 3214 bulunur.

Cevap: C

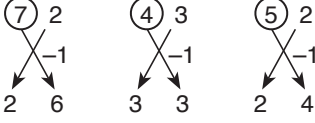
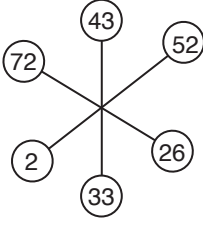
55. $a^2 \Delta \sqrt{b} = a + b$
 $9 \Delta 4 = ?$
 $a^2 = 9 \Rightarrow a = 3$
 $\sqrt{b} = 4 \Rightarrow b = 16$
 $a + b = 3 + 16 = 19$

Cevap: A

56. $a * b = 3a - 5b + 9$
 $a * a = a \Rightarrow a = ?$
 $b = a$ olur.
 $a * a = 3a - 5a + 9 = a$
 $9 = 3a$
 $3 = a$ bulunur.

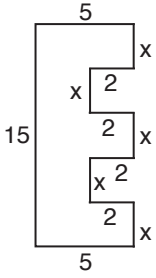
Cevap: C

57.



Cevap: C

58.

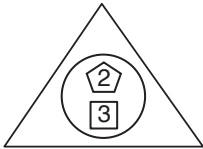
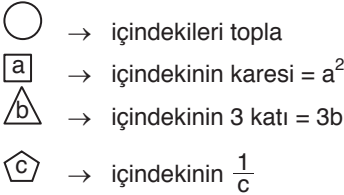


$$5x = 15 \text{ cm}$$

$$\begin{aligned} \text{çevresi:} \\ &= 15 + 5 + (5x) + 4 \cdot 2 + 5 \\ &= 15 + 5 + 15 + 8 + 5 \\ &= 48 \text{ cm bulunur.} \end{aligned}$$

Cevap: A

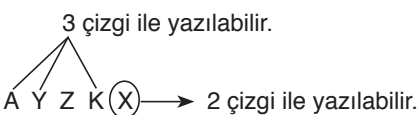
59.



$$\begin{aligned} \rightarrow 3\left(\frac{1}{2} + 3^2\right) &= 3 \cdot \left(\frac{1}{2} + 9\right) \\ &= 3 \cdot \frac{19}{2} \\ &= \frac{57}{2} \end{aligned}$$

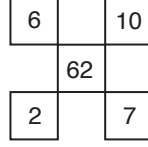
Cevap: E

60.

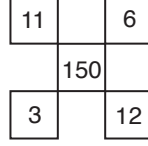


Cevap: E

61.

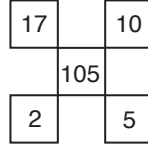


$$\begin{aligned} 6 \cdot 7 + 2 \cdot 10 &= 42 + 20 \\ &= 62 \end{aligned}$$



Çapraz kareleri çarp
 sonra topla.
 Ortaya yaz.

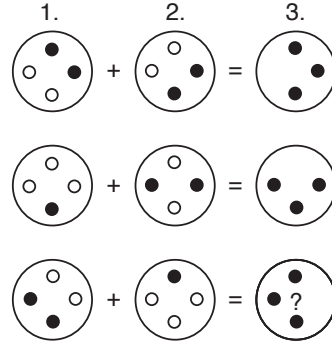
$$\begin{aligned} 11 \cdot 12 + 6 \cdot 3 &= 132 + 18 \\ &= 150 \end{aligned}$$



$$\begin{aligned} 17 \cdot 5 + 2 \cdot 10 &= 85 + 20 \\ &= 105 \end{aligned}$$

Cevap: E

62.



1. ve 2. yi topla. Siyah olanları 3'e yaz.

Cevap: E

63.

Çarpım tablosuna göre
 $a \cdot b = c$?? $a = \frac{c}{b}$
 $a \cdot c = b^2$?? $a = \frac{b^2}{c}$


$$c^2 = 27$$

$$\frac{b}{c} \neq \frac{b^2}{c}$$

$$b^3 = c^2 = 27 = 3^3$$

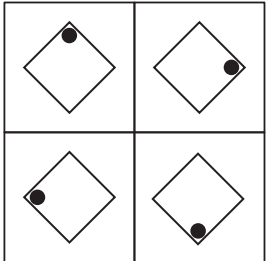
$$b = 3$$

Cevap: A

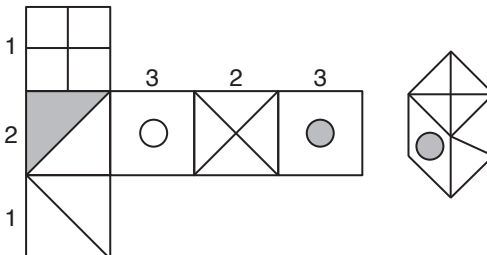
64.  birim
 1 → 9 adet
 4 → 3 adet
 + 9 → 1 adet

 13 adet

Cevap: C

65.  90° saat yönünde dönme

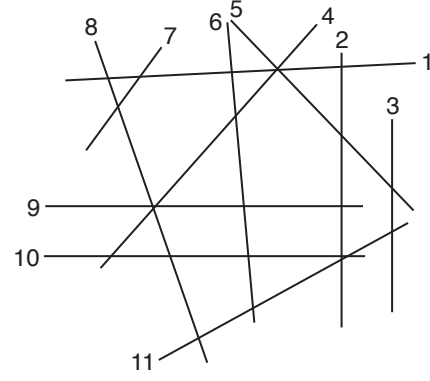
Cevap: C

66. 

Cevap: E

67. Daire dörtgenin içinde. D şıkında ise üçgenin içinde.

Cevap: D

68. 

Cevap: B

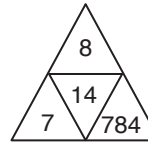
69.

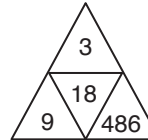
7	8	4	19	1
3	14	5	22	2
2	7	x	27	3
12	29	27	68	4

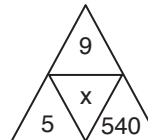
1, 2 ve 3. satırı topla 4 satıra

$$2 + 7 + x = 27 \Rightarrow x = 18$$

Cevap: A

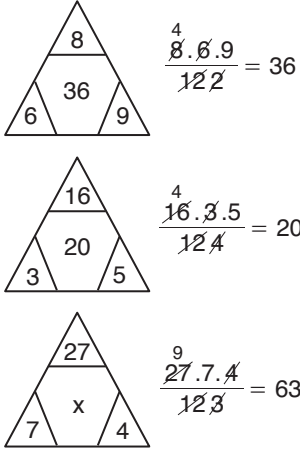
70.  8.7.14=784

-  3.9.18 = 486

-  9.5.x = 540
x = 12

Cevap: D

71.

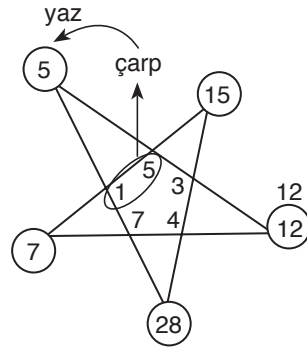


Cevap: D

73. I. $3D + \ddot{U} = 3K + D \Rightarrow 2D + \ddot{U} = 3K$
 II. $2K + 3D = K + \ddot{U} + 2D \Rightarrow K + D = \ddot{U}$
 III. $2K + \ddot{U} = ?$
 $\downarrow \quad \downarrow$
 $3D + D + K = 4D + K$

Cevap: B

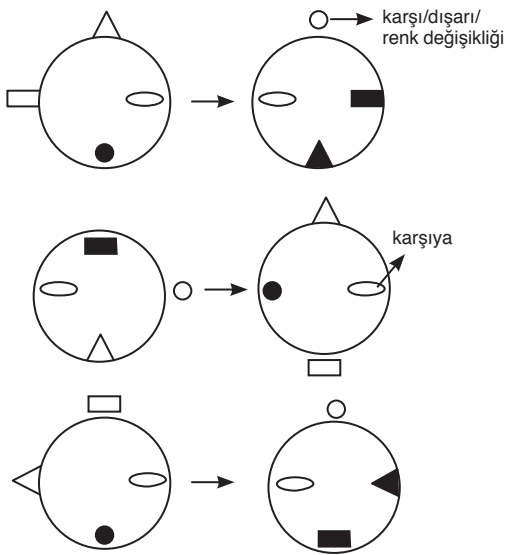
74.



$x + y = 12 + 7 = 19$

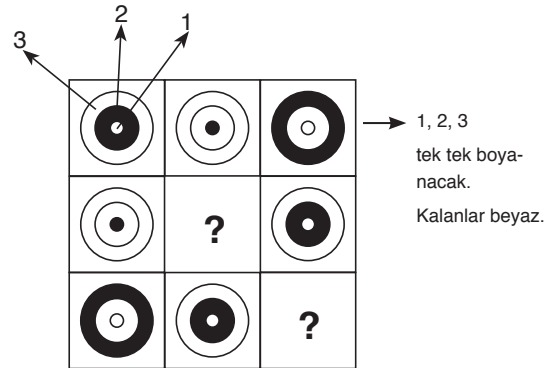
Cevap: E

72.



Cevap: C

75.



Üst üste konulduğunda siyahlaşan beyazlaşıyor.

Cevap: B

76. $\bigcirc \rightarrow 1$, $\square \rightarrow 4$, $\star \rightarrow 5$,
 $\triangle \rightarrow 3$, $\blacksquare \rightarrow 8$
 $\blacktriangle \rightarrow 6$, $\bullet \rightarrow 2$

- $\star \bigcirc \triangle \blacksquare \rightarrow 5138$
 $\bigcirc \square \star \triangle \rightarrow 1453$
 $\blacktriangle \triangle \square \star \rightarrow 6345$
 $\bullet \star \triangle \square \rightarrow 2534$
 $\blacksquare \bullet \square \triangle \rightarrow \boxed{8243}$

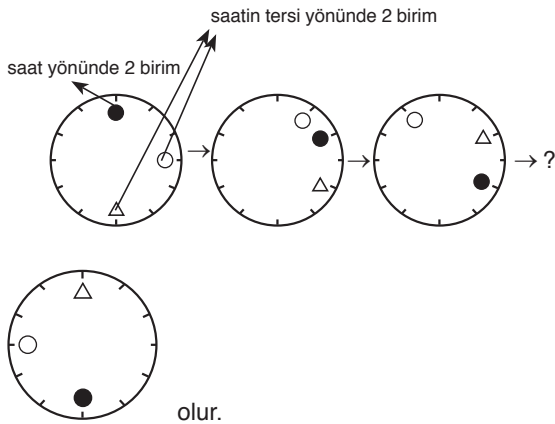
Cevap: E

77. $32 + 23 + x + 14 + 21 = 90 + x = 100$
 $x = \%10$

%100	360°
%10	x°
x° = 36°	

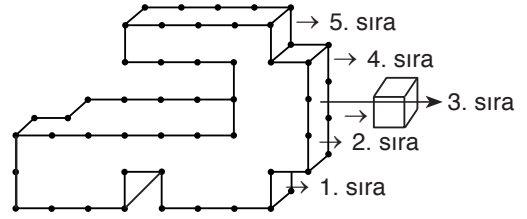
Cevap: D

78.



Cevap: A

79.



1	→	10
2	→	13
3	→	2
4	→	2
+	5	→
		4
31 tane		

Cevap: D

80. $\alpha = \left| \frac{11. \text{ dakika} - 6. \text{ saat}}{2} \right|$

dakika = 40 saat = 3

$\alpha = \left| \frac{11.40 - 60.3}{2} \right|$

$\alpha = \left| \frac{440 - 180}{2} \right|$

$\alpha = 130^\circ$

Cevap: C