

ÇÖZÜMLERİ

1. EK
- \overline{RAN}
- \overline{KARNE}
- MERAK AK
- \overline{RAN}
- \overline{KENAR}

$$\begin{array}{r} 16452 \\ 65465 \end{array} \quad 32461 \quad 21465 \quad \underline{12564}$$

$$K = 1$$

$$3246\underline{1} = \text{MERAK}$$

Cevap: B

2. 1543 4312
- $\underline{3451}$
- $\underline{3242}$
- 5234

$$\square = 3$$

$$\triangle \circ \blacksquare \square = 1543$$

$$\circ \nabla \square \blacksquare = 5234$$

Cevap: E

- 3.
- $2 < 3$

$$2 \oplus 3 = 2 \cdot 3 - 2 = 4$$

$$4 > 2 \quad 4 \oplus 2 = 2^4 + 2 = 16 + 2 = 18$$

Cevap: C

- 4.
- $3 \square 2 = 2^3 - 3^2 = 8 - 9 = -1$

$$-1 \otimes 2 = (-1)^{-1} + (-2)^2 = -1 + 4 = 3$$

$$-1 \otimes 3 = (-1)^{-1} + (-2)^3 = -1 - 8 = -9$$

Cevap: B

- 5.

$$\begin{array}{|c|c|c|} \hline 14 & 17 & 18 \\ \hline \end{array} \rightarrow$$

$$17 - 14 = 3 \text{ yüzler}$$

$$18 - 17 = 1 \text{ birler}$$

$$\frac{14 + 18 - 17}{3} = 5 \text{ onlar}$$

O halde

$$\begin{array}{|c|c|c|} \hline 24 & 27 & 30 \\ \hline \end{array}$$

$$30 - 27 = 3 \text{ birler}$$

$$27 - 24 = 3 \text{ yüzler}$$

$$\frac{30 + 24 - 27}{3} = 9 \text{ onlar}$$

393 olur.

Cevap: C

- 6.

Parantez içi (\oplus adedi + adedi \times (\blacksquare adedi) \times (\otimes adedi) üsler ise şekillerden çıkan bağlantı sayısı

O halde

$$(3^6 + 2^5) \times 2^5$$

$$x = 6, y = 5 \text{ ve } z = 5$$

$$x + y + z = 6 + 5 + 5 = 16 \text{ bulunur.}$$

Cevap: E

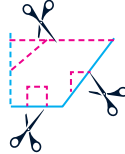
- 3.
- $2 < 3$

$$2 \oplus 3 = 2 \cdot 3 - 2 = 4$$

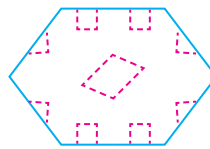
$$4 > 2 \quad 4 \oplus 2 = 2^4 + 2 = 16 + 2 = 18$$

Cevap: C

- 7.

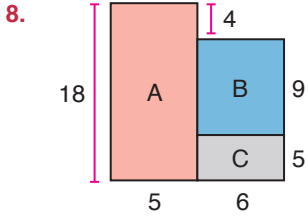


Şeklimiz bu şekilde kesilip tekrar açıldığında

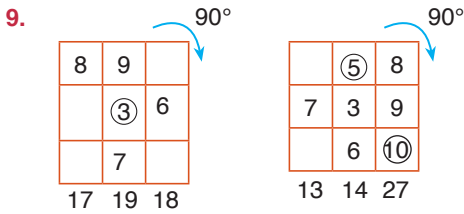


şekli oluşur.

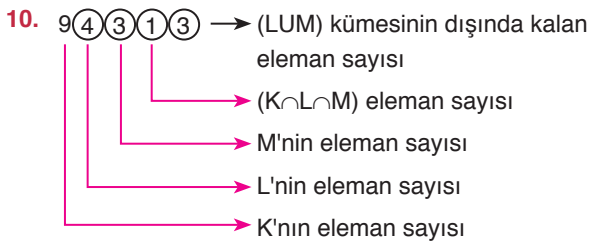
Cevap: A



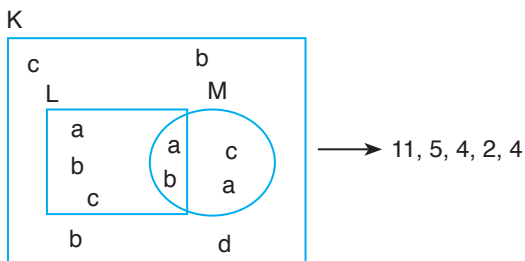
$A \rightarrow 18 \cdot 5 = 90$
 $B \rightarrow 9 \cdot 6 = 54$
 $C \rightarrow 6 \cdot 5 = 30$
 O halde $x = 10$ olmalı.



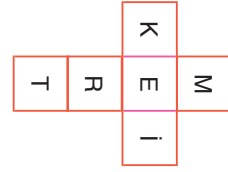
A 19 17 27 14 13
 $A = 18x = 10, y = 3, z = 5, m = 4$
 $x + y + z + m - A = 10 + 3 + 5 + 4 - 18 = 4$



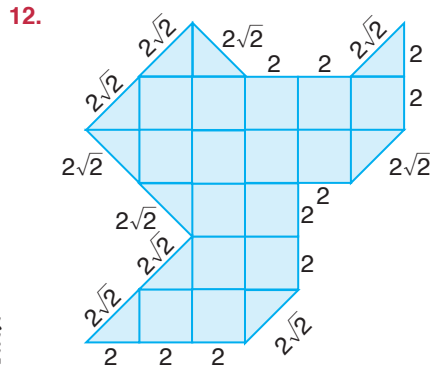
O halde



11. $K \rightarrow F$
 $\dot{I} \rightarrow R$
 $E \rightarrow T$
 Sorumuzda
 $M \rightarrow R$
 $E \rightarrow T$
 $K \rightarrow \dot{I}$



Cevap: C



O halde $10 \cdot 2 + 10 \cdot 2\sqrt{2}$
 $= 20 + 20\sqrt{2}$
 $= 20(1 + \sqrt{2})$ olur.

Cevap: B

Cevap: C

Cevap: C

13. $a + b = 23$
 $a + c = 3b$
 $c + c = 10$ $\boxed{c = 5}$
 $a = 3b - 5$ $3b - 5 + b = 23$

$4b = 28$

$\boxed{b = 7}$

Cevap: C

14. $a.b = 3c$
 $b.c = 4a \Rightarrow a^2 \cdot b^2 \cdot c^2 = 3 \cdot 4 \cdot 6 \cdot a \cdot b \cdot c$
 $a.c = 6b$
 $\underbrace{a \cdot b \cdot c}_{4a} = 72$ $\underbrace{a \cdot b \cdot c}_{3c} = 72$ $\underbrace{a \cdot b \cdot c}_{6b} = 72$
 $4a^2 = 72$ $3c^2 = 72$ $6b^2 = 72$
 $a^2 = 18$ $c^2 = 24$ $b^2 = 12$

Cevap: B

TASARI EĞİTİM YAYINLARI

15. $a \cdot b = 12a \rightarrow b = 12$

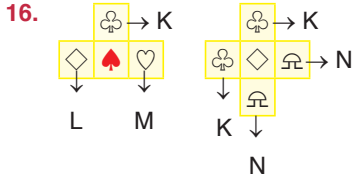
$$b \cdot c = 4a \rightarrow 12 \cdot c = 4a \rightarrow c = \frac{a}{3}$$

$$a + c = 4b \rightarrow a + c = 48$$

$$a + \frac{a}{3} = 48$$

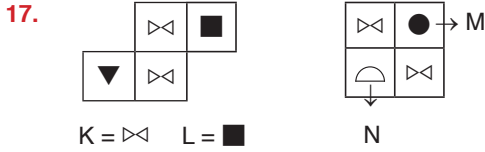
$$\frac{4a}{3} = 48 \quad a = 36$$

Cevap: E



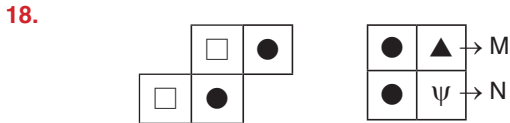
$$K = \heartsuit \quad L = \diamondsuit \quad M = \heartsuit \quad N = \heartsuit$$

Cevap: B



$$K = \heartsuit \quad L = \heartsuit$$

Cevap: D



Cevap: C

19. • $\boxed{b=2}$ ve $a + b = 8 \Rightarrow \boxed{a=6}$

$$\bullet \frac{a \cdot c = 18}{6} \Rightarrow \boxed{c=3}$$

$$d^b = d^2 = 49 \Rightarrow d = 7$$

$$\Rightarrow K = c + d = 3 + 7 = 10 \text{ olur.}$$

Cevap: A

20. $c^a = c^3 \quad \boxed{a=3}$

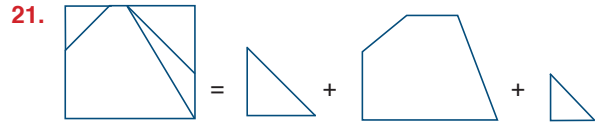
$$d^b = b^{14}$$

$$b \cdot d = b^8 \rightarrow d = b^7$$

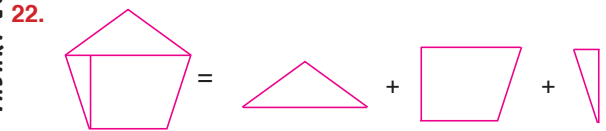
$$(b^7)^b = b^{14} \quad 7b = 14 \quad \boxed{b=2}$$

$$K = a + b = 3 + 2 = 5$$

Cevap: A



Cevap: E



Cevap: D

23. $2\circ + \bullet = 2\square$

$$2\square = \boxed{5\bullet}$$

$$2\circ + \bullet = 5\bullet$$

$$2\circ = 4\bullet$$

$$\circ = 2\bullet$$

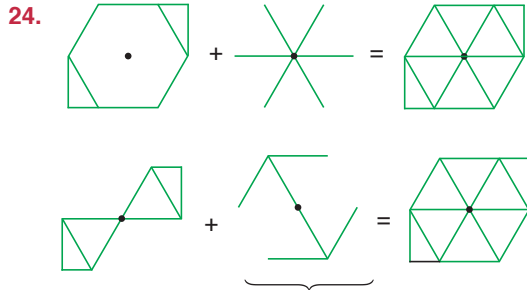
$$\bullet = 2k$$

$$\circ = 4k$$

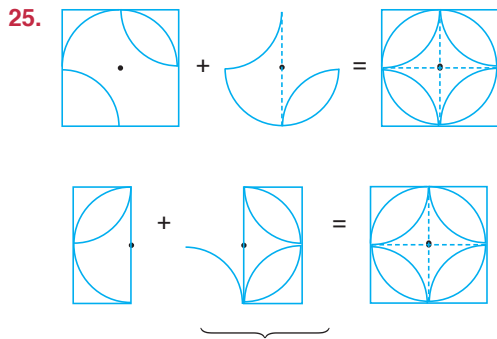
$$\square = 5k$$

$$\circ + 3\bullet = 4k + 6k = 10k = 2\square$$

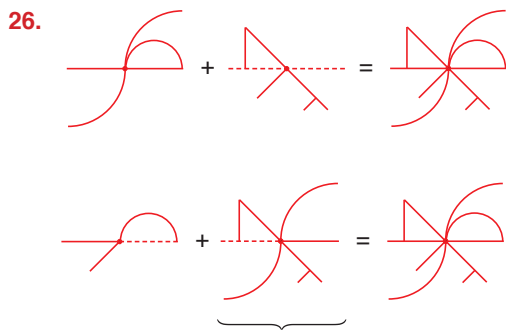
Cevap: D



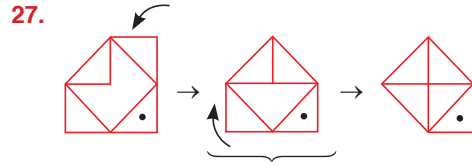
Cevap: B



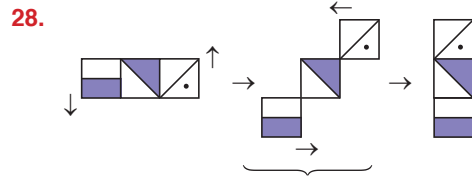
Cevap: C



Cevap: B

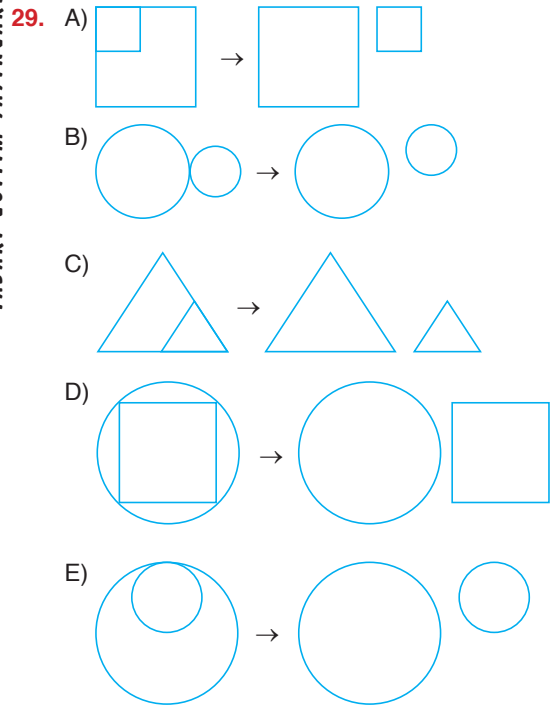


Cevap: A

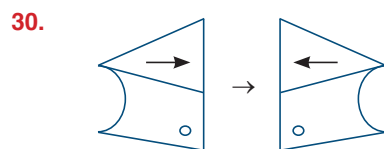


Cevap: C

TASARI EĞİTİM YAYINLARI



Cevap: D



Cevap: E

31. KURDELAM = 76205314
 K=7 U=6 R=2 D=0 E=5
 L=3 A=1 M=4
 5673310241 = EUKLLADRMA

Cevap: D

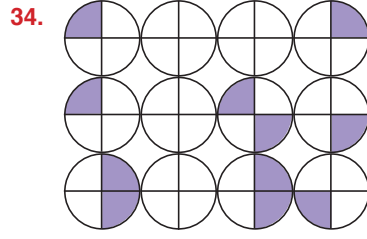
32. $1 + 1 + 2 = 4$
 $4.3 = 12$
 $1 + 1 + 2 + 3 = 7$
 $7.4 = 28$
 $1 + 1 + 2 + 3 + 5 = 12$
 $12.5 = 60$
 $1 + 1 + 2 + 3 + 5 + 8 = 20$

20.6 = 120

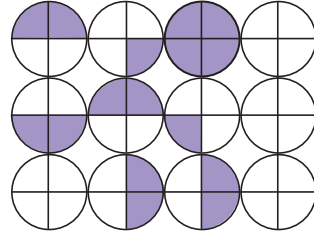
Cevap: E

33. $9285 \rightarrow 1614$ (+, v.)
 $1786 \rightarrow 567$ (+, v.)
 $8753 \rightarrow 3511$ (+)
 $7346 \rightarrow 1213$ (+)
 $2584 \rightarrow 406$ (+, v.)

Cevap: D

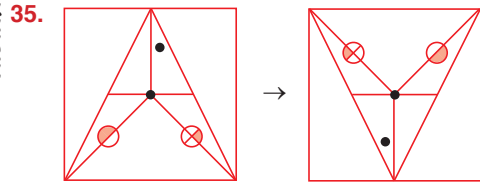


$$\begin{array}{r} \text{Quarter} = 48 \\ \text{Quarter} = 11 \\ \hline 37 \end{array} \quad \frac{37}{48}$$



$$\begin{array}{r} \text{Quarter} = 48 \\ \text{Quarter} = 16 \\ \hline 32 \end{array} \quad \frac{32}{48} = \frac{2}{3}$$

Cevap: A



Cevap: C

36. $5 + 3 = 8$
 $8 - 4 = 4$
 $4 + 3 = 7$
 $7 - 4 = 3$
 $3 + 3 = 6$
 $6 - 4 = 2$
 $2 + 3 = 5$
 $5 - 4 = 1$ ← ? = 1

Cevap: D

$$37. \begin{aligned} y &= 2x - 2 & x = 4 &\Rightarrow y = 6 \\ z &= 2x + 2 & x = 4 &\Rightarrow z = 10 \\ y + z &= 16 \end{aligned}$$

Cevap: E

$$38. \begin{aligned} 3^2 + 5 &= 14 \\ 2^2 + 3 &= 7 \\ 1^2 + 4 &= 5 \\ 2^2 + 5 &= 9 \end{aligned}$$

Cevap: B

$$39. \begin{aligned} 3 + 2 &= 5 \\ 5 + 4 &= 9 \\ 9 + 6 &= 15 \\ 15 + 8 &= 23 \\ 23 + 10 &= 33 \Rightarrow ? = 33 \end{aligned}$$

Cevap: D

$$40. \begin{aligned} 22 \diamond 12 &\Rightarrow 2 + 2 = 4 & 4.3 &= 12 \\ &1 + 2 = 3 & & \\ 24 \diamond 15 &\Rightarrow 2 + 4 = 6 & 6.6 &= 36 \\ &1 + 5 = 6 & & \\ 67 \diamond 16 &\Rightarrow 6 + 7 = 13 & 13.7 &= 91 \Rightarrow ? = 91 \\ &1 + 6 = 7 & & \end{aligned}$$

Cevap: D

$$41. \begin{aligned} \frac{1}{5} - 2 : \frac{2 + \frac{1}{2}}{2 - \frac{1}{2}} &= \frac{1}{5} - 2 : \frac{\frac{5}{2}}{\frac{3}{2}} = \frac{1}{5} - 2 : \frac{5}{3} \\ &= \frac{1}{5} - 2 \cdot \frac{3}{5} = \frac{1}{5} - \frac{6}{5} = -1 \end{aligned}$$

Cevap: B

$$42. \frac{12 \cdot 10^{-11} + 28 \cdot 10^{-11}}{2 \cdot 10^{-12}} = \frac{40 \cdot 10^{-11}}{2 \cdot 10^{-12}} = 20 \cdot 10 = 200$$

Cevap: E

$$43. \left[\left(-\frac{1}{27} \right)^{-\frac{1}{3}} \right]^2 = \left((-27)^{\frac{1}{3}} \right)^2 = \left((-3)^3 \right)^{\frac{1}{3}}^2 \\ = (-3)^2 = 9$$

Cevap: C

$$44. \frac{16^{x+1} \cdot 8^{x-2}}{8^2 \cdot 32^4} = 8^4 \\ \frac{(2^4)^{x+1} \cdot (2^3)^{x-2}}{(2^3)^2 \cdot (2^5)^4} = (2^3)^4 \\ \frac{2^{4x+4} \cdot 2^{3x-6}}{2^6 \cdot 2^{20}} = 2^{12} \\ 2^{7x-2} = 2^{38} \\ 7x - 2 = 38 \quad 7x = 38 + 2 \\ x = \frac{40}{7}$$

Cevap: B

$$45. \sqrt{\frac{3 \cdot 12^x}{3^x \cdot 3}} = 16 \rightarrow \sqrt{4^x} = 16 \rightarrow 4^x = 16^2 \\ 2^{2x} = 2^8 \\ \boxed{x = 4}$$

Cevap: D

$$46. \frac{\frac{1}{a^2} - 1}{\frac{1}{a} + 1} \cdot \frac{a^2}{a - 1} = \frac{1 - a^2}{a^2} \cdot \frac{a^2}{a - 1} \\ = \frac{(1 - a)(1 + a)}{a^2} \cdot \frac{a}{1 + a} \cdot \frac{a^2}{a - 1} = -a$$

Cevap: D

$$\begin{aligned}
 47. \quad \frac{4^6 - 4^5}{2^{-7} - 2^{-6} + 2^{-5}} &= \frac{2^{12} - 2^{10}}{2^{-7}(1 + 2^1 + 2^2)} \\
 &= \frac{2^{10}(2^2 - 1)}{2^{-7}(3)} = \frac{2^{10} \cdot 3}{2^{-7} \cdot 3} \\
 &= 2^{10+7} \\
 &= 2^{17}
 \end{aligned}$$

Cevap: C

$$\begin{aligned}
 48. \quad \frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \frac{2}{3} \\
 \frac{2a}{2b} = \frac{-c}{-d} = \frac{e}{f} = \frac{2}{3} \Rightarrow \frac{2a - c + e}{2b - d + f} = \frac{2}{3} \\
 \Rightarrow \frac{12}{2b - d + f} = \frac{2}{3} \\
 \frac{6}{12} = \frac{2}{3} \quad 8 - d = 18 \quad \boxed{d = -10}
 \end{aligned}$$

Cevap: A

$$\begin{aligned}
 49. \quad x^3 - 2x^2 + 4x + k &= (x^2 + 4) \cdot B(x) \\
 x^2 = -4 \Rightarrow \underline{x^2} \cdot x - 2 \cdot \underline{x^2} + 4x + k &= 0 \\
 -4x + 8 + 4x + k &= 0 \\
 k &= -8
 \end{aligned}$$

Cevap: B

$$\begin{aligned}
 50. \quad \frac{\sqrt{90} + \sqrt{160}}{\frac{1}{\sqrt{50}} + \frac{\sqrt{72}}{3}} \\
 = \frac{\sqrt{9 \cdot 10} + \sqrt{16 \cdot 10}}{\frac{1}{\sqrt{25 \cdot 2}} + \frac{\sqrt{36 \cdot 2}}{3}} = \frac{3\sqrt{10} + 4\sqrt{10}}{\frac{1}{5\sqrt{2}} + \frac{6\sqrt{2}}{3}} \\
 = \frac{7\sqrt{10}}{\frac{1}{5\sqrt{2}} + 2\sqrt{2}} \\
 = \frac{7\sqrt{10}}{\frac{1+20}{5\sqrt{2}}} = \frac{7\sqrt{10}}{21} = \frac{\sqrt{5} \cdot \sqrt{2}}{3} \cdot \frac{5\sqrt{2}}{21} \\
 = \frac{10\sqrt{5}}{3}
 \end{aligned}$$

Cevap: B

$$\begin{aligned}
 51. \quad \frac{5 \cdot n! - 2 \cdot (n-1)!}{2 \cdot (n-2)!} &= 70 \\
 \frac{5 \cdot n \cdot (n-1)! - 2 \cdot (n-1)!}{2 \cdot (n-2)!} &= 70 \\
 \frac{(n-1)(5n-2)}{2 \cdot (n-2)!} &= 70 \\
 \frac{(n-1)(n-2)!(5n-2)}{2 \cdot (n-2)!} &= 70 \\
 (n-1) \cdot (5n-2) &= 140 \\
 n = 6 \text{ için eşitlik sağlanır.}
 \end{aligned}$$

Cevap: C

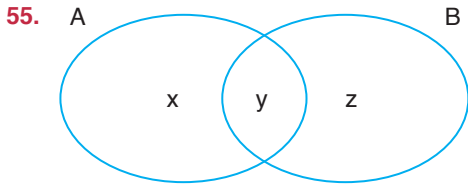
$$\begin{aligned}
 52. \quad |a| - |b| &= 0 \\
 |a| &= |b| \\
 a = b \text{ veya } a &= -b \text{ olur.} \\
 \bullet \quad a = b \text{ alınırsa} \\
 |b - b| - |b + b| &= 4 \\
 0 - |2b| &= 4 \\
 |2b| &= -4 \text{ olmaz.} \\
 \bullet \quad a = -b \text{ alınırsa} \\
 |2a| - |0| &= 4 \\
 |2a| &= 4 \\
 2a = 4 \text{ veya } 2a &= -4 \\
 a = 2 \text{ veya } a &= -2 \\
 a = 2 \text{ için } b &= -2 \\
 a = -2 \text{ için } b &= 2 \\
 a \cdot b = 2 \cdot (-2) &= -4 \text{ bulunur.}
 \end{aligned}$$

Cevap: A

Diğer Sayfaya Geçiniz.

$$\begin{aligned}
 53. \quad & \frac{7! + 6! + 5!}{6! + 5!} \\
 &= \frac{5!(7 \cdot 6 + 1)}{5!(6 + 1)} \\
 &= \frac{49}{7} = 7 \text{ bulunur.}
 \end{aligned}$$

$$\begin{aligned}
 54. \quad & a^2 = \varrho^2 + 12 \\
 & + \quad \varrho^2 = b^2 + 17 \\
 \hline
 & a^2 = b^2 + 29 \\
 & a^2 - b^2 = 29 \Rightarrow \underbrace{(a - b)}_1 \underbrace{(a + b)}_{29} = 29 \\
 & a - b = 1 \\
 & + \quad a + b = 29 \\
 \hline
 & 2a = 30 \\
 & a = 15 \text{ ve } b = 14 \\
 & a \cdot b = 15 \cdot 14 = 210 \text{ bulunur.}
 \end{aligned}$$



$$\begin{aligned}
 n(A \cup B) &= x + y + z = 45 \\
 n(A \setminus B) &= x, n(B \setminus A) = z \\
 n(A \cap B) &= y \\
 n(A \setminus B) + n(B \setminus A) &= 8 \cdot n(A \cap B) \\
 x + z &= 8y \\
 x + z + y &= 45 \\
 \underbrace{x + z}_{8y} + y &= 45 \\
 9y &= 45 \Rightarrow y = 5 \\
 \text{O halde} \\
 n(A \setminus B) + n(B \setminus A) &= x + z = 8y = 8 \cdot 5 \\
 &= 40 \text{ bulunur.}
 \end{aligned}$$

Cevap: E

$$\begin{aligned}
 56. \quad & b - a = 6 \\
 \text{I. } & y + x + b = 37 \\
 \text{II. } & c + y = 37 \\
 \text{III. } & a + x + 11 = 37 \Rightarrow a + x = 26 \\
 & \text{I ve II'den} \\
 & y + x + b = c + y \\
 & x + b = c \\
 & \bullet \quad - / x + b = c \\
 & \quad x + a = 26 \\
 & \quad a - b = 26 - c \\
 \hline
 & a - b = 26 - c \\
 b - a = 6 & \Rightarrow a - b = -6 = 26 - c \\
 & c = 26 + 6 \\
 & c = 32 \text{ bulunur.}
 \end{aligned}$$

Cevap: C

Cevap: B 57. $x, y, z \in \mathbb{R}$

$$\begin{aligned}
 & y \cdot z < x \cdot y < 0 < x \cdot y \cdot z \\
 & \begin{array}{c} \swarrow \quad \searrow \\ \downarrow \quad \downarrow \\ \swarrow \quad \searrow \end{array} \\
 & z < x < 0 \quad 0 < y \text{ olur.} \\
 & \text{O halde} \\
 & z < x < 0 < y
 \end{aligned}$$

Cevap: B

$$\begin{aligned}
 58. \quad & f(2x + 4) = 2x + 4a \\
 & f(8x) = 8x + 3a \\
 & x \text{ yerine } (4x - 2) \text{ yazalım.} \\
 & 2 \cdot (4x - 2) + 4a = 8x + 3a \\
 & 8x - 4 + 4a = 8x + 3a \\
 & a = 4 \\
 & f(4) \text{ için} \\
 & x = 0 \text{ alınır.} \\
 & f(4) = 0 + 4 \cdot 4 = 16 \text{ bulunur.}
 \end{aligned}$$

Cevap: E

Cevap: D

$$59. f\left(x + \frac{1}{x}\right) = \underbrace{x^2 + \frac{1}{x^2}} - 3$$

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

$$f\left(x + \frac{1}{x}\right) = \left(x + \frac{1}{x}\right)^2 - 5$$

$$f(3) = 3^2 - 5 = 4$$

Cevap: E

$$60. \quad a^2 - bc = 17$$

$$+ \quad - / b^2 + ac = 12$$

$$a^2 - b^2 - bc - ac = 5$$

$$(a - b)(a + b) - c(b + a) = 5$$

$$(a + b)(a - b - c) = 5$$

5

$$a + b = 1 \text{ bulunur.}$$

Cevap: A

$$61. \quad \begin{array}{r} K2L \mid L1 \\ - \quad \quad \mid 13 \\ \hline 4 \end{array}$$

$$K2L = L1 \cdot 13 + 4$$

$$100K + 20 + L = (10L + 1) \cdot 13 + 4$$

$$100K + 20 + L = 130L + 17$$

$$100K + 3 = 129L$$

$$\begin{array}{r} \downarrow \quad \downarrow \\ 9 \quad 7 \end{array}$$

$$K = 9 \text{ ve } L = 7 \text{ de sağlanmakta.}$$

$$K \cdot L = 9 \cdot 7 = 63 \text{ bulunur.}$$

Cevap: D

$$62. \quad \frac{\sqrt{b}}{\sqrt{a}} = 3$$

$$(\sqrt{b})^2 = (3\sqrt{a})^2$$

$$b = 9a$$

$$\bullet \quad \sqrt{a} \cdot \sqrt{9a} = \frac{9}{2}$$

$$\sqrt{a} \cdot 3\sqrt{a} = \frac{9}{2}$$

$$3a = \frac{9}{2} \Rightarrow a = \frac{3}{2}$$

$$b = 9 \cdot \frac{3}{2} = \frac{27}{2}$$

O halde

$$a + b = \frac{3}{2} + \frac{27}{2} = \frac{30}{2}$$

= 15 bulunur.

Cevap: C

$$63. \quad x, y, z \in \mathbb{R}^+$$

$$x \cdot z = 10$$

$$+ \quad y \cdot z = 6$$

$$z(x + y) = 16$$

$$9z$$

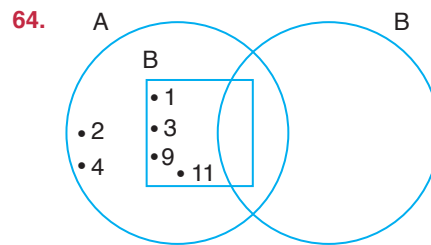
$$9z^2 = 16$$

$$z^2 = \frac{16}{9} \Rightarrow z = \frac{4}{3}$$

$$\text{O halde } x + y + z = 10z = 10 \cdot \frac{4}{3}$$

$$= \frac{40}{3} \text{ olur.}$$

Cevap: E



$$A \setminus (B \cup C) = \{2, 4\}, (A \cap B) \setminus C = \{1, 3, 9, 11\}$$

Verilen verileri yerleştirdiğimiz venn şemamız bu şekilde olur.

O halde c kümesinin elemanları

$$C = \{0, 5, 6, 7, 8, 10\}$$

$$n(C) = 6 \text{ bulunur.}$$

Cevap: C

Diğer Sayfaya Geçiniz.

65. $|x - 9| = 2x - 6$
 $x > 9$ ise $x - 9 = 2x - 6$
 $-3 = x$ olur. Ancak $x > 9$
şartından dolayı olmaz.
 $x < 9$ ise $-x + 9 = 2x - 6$
 $15 = 3x$
 $5 = x$ olup $x < 9$
olduğundan $x = 5$ alınır.
• $|y + 7| = 5 - y$
 $y > -7$ ise $y + 7 = 5 - y$
 $2y = -2$
 $y = -1$ olup $y > -6$
olduğundan $y = -1$ alabiliriz.
 $y < -6$ ise $-y - 7 = 5 - y$
 $-7 = 5$
Buna göre $x \cdot y = 5 \cdot (-1) = -5$ olur.

Cevap: B

67. $\frac{2x+10}{x^2+4x+3} = \frac{A}{x+1} + \frac{B}{x+3}$
 $\frac{2x+10}{(x+1)(x+3)} = \frac{Ax+3A+Bx+B}{(x+1)(x+3)}$
 $2x+10 = (A+B)x + 3A+B$
 $- / A+B = 2$
 $3A+B = 10$

 $2A = 8$
 $A = 4 \Rightarrow B = -2$ olur.
o halde
 $3A+2B = 3 \cdot (4) + 2 \cdot (-2)$
 $= 12 - 4$
 $= 8$ bulunur.

Cevap: A

66. Grafiğimize göre,
 $g(1) = 2$ ise $g^{-1}(2) = 1$, $f(1) = 2$ için
 $(f \circ g^{-1})(2) = f(g^{-1}(2)) = f(1) = 2$ olur.
 $f(0) = 1 \Rightarrow f^{-1}(1) = 0$ ve $g(0) = 3$
için $(g \circ f^{-1})(1) = g(f^{-1}(1)) = g(0) = 3$
 $\Rightarrow (f \circ g^{-1})(2) + (g \circ f^{-1})(1) = 2 + 3 = 5$ olur.

Cevap: D

68. $P(x) = ax^3 + bx^2 + cx + d$
 $P(1) = a + b + c + d$
 $Q(x) = ax^2 + bx + c$
 $P(1) = a + b + c$
 $P(1) - Q(1) = 12$
 $a + b + c + d - a - b - c = 12$
 $d = 12$
• $P(2) = 8a + 4b + 2c + d$
 $3 \cdot P(2) = 24a + 12b + 6c + 3d$
 $Q(2) = 4a + 2b + c$
 $6Q(2) = 24a + 12b + 6c$
 $3P(2) - 6Q(2) = ?$
 $24a + 12b + 6c + 3d - 24a - 12b - 6c$
 $= 3d$
 $= 3 \cdot 12 = 36$ bulunur.

Cevap: D

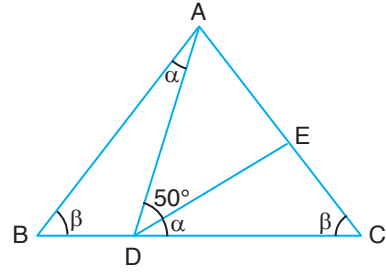
69. $P(x) = ax - 8$
 $Q(x) = 5x - b - 4$
 $P(x - 2) = a(x - 2) - 8 = ax - 2a - 8$
 $Q(3 - 2x) = 5(3 - 2x) - b - 4$
 $= 15 - 10x - b - 4$
 $= 11 - 10x - b$
 $P(x - 2) = Q(3 - 2x)$
- $$\boxed{ax + \boxed{-2a - 8}} = -10x + \boxed{11 - b}$$
- $a = -10$
 \swarrow
 $-2a - 8 = 11 - b$
 $20 - 8 = 11 - b$
 $12 = 11 - b$
 $b = -1$
- O halde
 $a + b = -10 + -1 = -11$ bulunur.

Cevap: B

70. $\frac{P(x+4)}{Q(x-1)} = -x^3 + 6x + 11$
 $x = 3$ için
 $\frac{P(7)}{Q(2)} = -3^3 + 6 \cdot 3 + 11$
 $\frac{P(7)}{3} = -27 + 18 + 11$
 $\frac{P(7)}{3} = 2$
 $P(7) = 6$ bulunur.

Cevap: E

71.

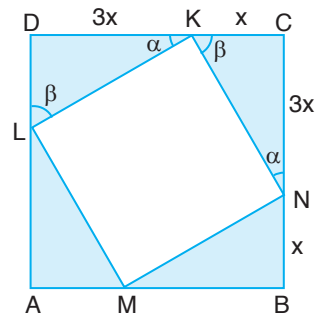


- $m(\widehat{BAD}) = m(\widehat{EDC}) = \alpha$ olsun.
 $|AB| = |AC| \Rightarrow m(\widehat{ABC}) = m(\widehat{ACB}) = \beta$ olsun.
 (iki iç açının toplamı bir dış açıya eşittir.)
 $\alpha + \beta = 50 + \alpha \Rightarrow \beta = 50^\circ$ dir.
 O halde
 $m(\widehat{ABC}) = m(\widehat{ACB}) = 50^\circ$ ise
 $m(\widehat{BAC}) = 80^\circ$ olur.

Cevap: E

TASARI EĞİTİM YAYINLARI

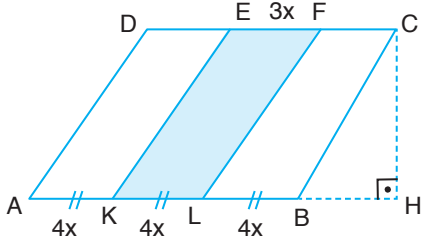
72.



- $|CD| = 4|KC| = 4x$ olsun.
 $\widehat{LDK} \sim \widehat{KCN}$ için
 $\frac{|DK|}{|CN|} = \frac{|DL|}{|CK|} = \frac{|LK|}{|KN|} = 1$ olduğundan
 $|CN| = 3x$ $A(ABCD) = 192 = 4x \cdot 4x$
 $192 = 16x^2 \Rightarrow x = 2\sqrt{3}$ cm
- KCN dik üçgeninden
 $|KM|^2 = (2\sqrt{3})^2 + (6\sqrt{3})^2 = 12 + 108 = 120$
 (Bu da KLMN karesinin alanıdır.)
- O halde taralı alanların toplamı $= 192 - 120 = 72$ cm² olur.

Cevap: C

73.



$$|AB| = |CD| = 4|EF| = 12x$$

$$|KL| = 4x$$

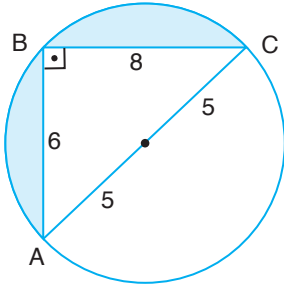
$$A(ABCD) = 12x \cdot h = 36 \text{ cm}^2$$

$$x \cdot h = 3 \text{ cm}^2$$

$$A(EKLF) = \frac{(4x + 3x) \cdot h}{2} = \frac{7x \cdot h}{2} = \frac{7 \cdot 3}{2} = \frac{21}{2} \text{ cm}^2$$

Cevap: A

74.



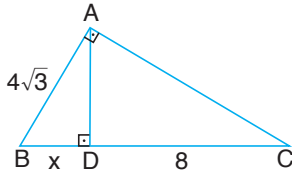
Pisagordan $|AC| = 10 \text{ cm}$

Taralı alan = Yarımlar daire alan - $A(\widehat{ABC})$

$$= \frac{\pi \cdot 5^2}{2} - \frac{6 \cdot 8}{2}$$

$$= \left(\frac{25}{2}\pi - 24\right) \text{ cm}^2$$

75.



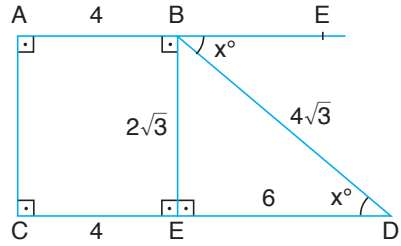
$$(4\sqrt{3})^2 = x \cdot (x + 8)$$

$$48 = x^2 + 8x \quad x^2 + 8x - 48 = 0 \Rightarrow \boxed{x = 4}$$

$$|AD| = 4\sqrt{2} \quad A(ABC) = \frac{12 \cdot 4\sqrt{2}}{2} = 24\sqrt{2}$$

Cevap: B

76.



$$|BE|^2 + 6^2 = (4\sqrt{3})^2 \Rightarrow 48 - 36 = 12$$

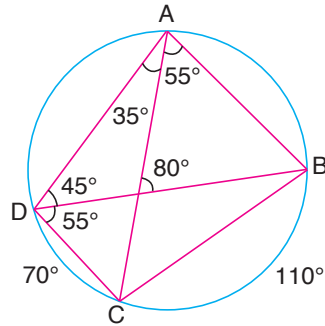
$$|BE| = 2\sqrt{3}$$

$$\tan x = \frac{2\sqrt{3}}{6} = \frac{\sqrt{3}}{3} \quad x = 30^\circ$$

Cevap: B

TASARI EĞİTİM YAYINLARI

77.



$$m(\widehat{AB}) = 90^\circ \quad \frac{90^\circ + m(\widehat{DC})}{2} = 80^\circ \quad m(\widehat{DC}) = 70^\circ$$

$$m(\widehat{DAC}) = 35^\circ$$

$$m(\widehat{DCB}) + m(\widehat{DAB}) = 180^\circ$$

$$m(\widehat{DCB}) + 90^\circ = 180^\circ$$

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

Cevap: C

