

$$1. \quad 3x - 1 = 4x + 3$$

$$-4 = x$$

Cevap: A

$$2. \quad 3x - 2 = \frac{8x - 1}{3}$$

$$9x - 6 = 8x - 1$$

$$x = 5$$

Cevap: C

$$3. \quad 2 + \frac{5}{6x} = \frac{7}{3}$$

$$\frac{5}{6x} = \frac{7}{3} - 2 \Rightarrow \frac{5}{6x} \times \frac{1}{3}$$

$$15 = 6x$$

$$x = \frac{5}{2}$$

Cevap: C

$$4. \quad a - 4(a + 3) = 2a + 3$$

$$a - 4a - 12 = 2a + 3$$

$$-3a - 12 = 2a + 3$$

$$-5a = 15$$

$$a = -3$$

Cevap: A

$$5. \quad 4x - (3x - 4) = 2x + 12$$

$$4x - 3x + 4 = 2x + 12$$

$$x + 4 = 2x + 12$$

$$-8 = x$$

Cevap: A

$$6. \quad \frac{x}{2} - \frac{7}{2} = \frac{x}{6}$$

$$\frac{x}{2} - \frac{x}{6} = \frac{7}{2}$$

$$(3)$$

$$\frac{3x - x}{3} \times \frac{7}{2} \Rightarrow 2x = 21$$

$$x = \frac{21}{2}$$

Cevap: D

$$7. \quad \frac{3 - \frac{x}{4}}{0,12} = \frac{4 - 3x}{0,48} \Rightarrow \frac{12 - x}{4} = \frac{4 - 3x}{4}$$

$$12 - x = 4 - 3x$$

$$2x = -8$$

$$x = -4$$

Cevap: C

$$8. \quad x = 4 \Rightarrow \frac{2,4 - a}{3} = \frac{4}{3} + 1$$

$$\frac{8 - a}{3} = \frac{7}{3}$$

$$1 = a$$

Cevap: C

$$9. \quad \text{Terazi dengede ise}$$

$$2x - \frac{3}{4} = 5x - \frac{15}{2}$$

$$\frac{15}{2} - \frac{3}{4} = 5x - 2x$$

$$(2)$$

$$\frac{27}{4} \Rightarrow 3x$$

$$12x = 27 \Rightarrow x = \frac{9}{4}$$

Cevap: A

$$10. \quad \frac{3}{4} - 3x = \frac{1}{2} + 3y$$

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

$$\frac{1}{4} = 3(x + y)$$

$$x + y = \frac{1}{12}$$

$$11. \quad 7x - [6x - x + 2 + 3] - 3 = 6$$

$$7x - [5x + 5] = 6 + 3$$

$$7x - 5x - 5 = 9$$

$$2x = 14$$

$$x = 7$$

$$12. \quad 4 + \frac{18}{2 + \frac{20}{x-1}} = 7$$

$$2 + \frac{20}{x-1} = 6 \Rightarrow x-1 = 5$$

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

$$13. \quad 5 + \frac{12}{4 + \frac{20}{x-4}} = 3$$

$$4 + \frac{20}{x-4} = -6$$

$$\frac{20}{x-4} = -10$$

$$\frac{20}{x-4} = -2$$

$$x = -2 + 4 = 2 \text{ olur.}$$

$$14. \quad \frac{1}{a-4} - \frac{1}{6-a} = \frac{1}{a-6} - \frac{1}{4-a}$$

$$\frac{1}{a-4} + \frac{1}{a-6} = \frac{1}{a-6} + \frac{1}{a-4}$$

$$0 = 0 \Rightarrow \text{ÇK: R}$$

Kesirlerin paydalarını 0 yapan

$$a - 4 = 0 \quad a = 6 = 0$$

$$a = 4 \quad a = 6$$

değerlerini çözüm kümesinden atmalıyız.

$$\text{ÇK: R} - \{4, 6\}$$

Cevap: E

Cevap: B

Cevap: B

Cevap: B

Cevap: D

$$\begin{array}{r}
 1. \quad a + 2b = 4 \quad \rightarrow \quad 12 + 2b = 4 \\
 + \quad 2/ \quad 3a - b = 40 \quad \quad \quad 2b = -8 \\
 \hline
 \quad \quad \quad 7a = 84 \Rightarrow \boxed{a = 12} \quad \quad \quad \boxed{b = -4} \\
 \Rightarrow a - b = 12 - (-4) = 16 \text{ olur.}
 \end{array}$$

Cevap: B

$$\begin{array}{r}
 2. \quad \quad 2/ \quad 3a + b = 13 \quad \rightarrow \quad 9 + b = 13 \\
 + \quad \quad a - 2b = -5 \quad \quad \quad b = 4 \\
 \hline
 \quad \quad \quad 7a = 21 \Rightarrow a = 3 \\
 \Rightarrow a \cdot b = 3 \cdot 4 = 12 \text{ olur.}
 \end{array}$$

Cevap: A

$$\begin{array}{r}
 3. \quad \quad -2/ \quad 3x + 2y = 22 \quad \rightarrow \quad 3x + 10 = 22 \\
 + \quad 3/ \quad 2x + 3y = 23 \quad \quad \quad 3x = 12 \\
 \hline
 \quad \quad \quad 5y = 69 - 44 \quad \quad \quad x = 4 \\
 \quad \quad \quad 5y = 25 \Rightarrow y = 5 \\
 \Rightarrow x \cdot y = 4 \cdot 5 = 20 \text{ olur.}
 \end{array}$$

Cevap: D

$$\begin{array}{r}
 4. \quad \quad \frac{2}{x} - \frac{3}{y} = 4 \\
 \quad \quad \frac{3}{x} + \frac{8}{y} = 21 \\
 \hline
 \quad \quad \frac{5}{x} + \frac{5}{y} = 25 \\
 5 \left(\frac{1}{x} + \frac{1}{y} \right) = 25 \\
 (y) \quad (x) \\
 \frac{x+y}{x \cdot y} = 5 \text{ olur.}
 \end{array}$$

Cevap: D

$$\begin{array}{r}
 5. \quad a = 4b - 3 \Rightarrow a = 4 \cdot 2 - 3 = 5 \\
 a = -3b + 11 \\
 \Rightarrow 4b - 3 = -3b + 11 \\
 7b = 14 \\
 b = 2 \\
 \Rightarrow a \cdot b = 5 \cdot 2 = 10 \text{ olur.}
 \end{array}$$

Cevap: D

$$\begin{array}{r}
 6. \quad \quad a + b = 10 \quad \Rightarrow \quad a + 3 = 10 \Rightarrow a = 7 \\
 \quad \quad b + c = 11 \quad \Rightarrow \quad 3 + c = 11 \Rightarrow c = 8 \\
 + \quad -/ \quad a + c = 15 \\
 \hline
 \quad \quad \quad 2b = 10 + 11 - 15 \\
 \quad \quad \quad 2b = 6 \Rightarrow b = 3 \\
 \Rightarrow c \cdot a = 8 \cdot 7 = 56 \text{ olur.}
 \end{array}$$

Cevap: D

$$\begin{array}{r}
 7. \quad x + y = 4 \\
 + \quad -/ \quad y - z = 3 \\
 \hline
 x + z = 1 \\
 \\
 x + 2z - m = \underbrace{x + z}_1 + \underbrace{z - m}_7 = 8
 \end{array}$$

Cevap: C

$$\begin{array}{r}
 8. \quad m + 2n = 12 \\
 -2/ \quad n + k = 7 \\
 + \quad 2/ \quad k - p = 3 \\
 \hline
 m - 2p = 12 - 14 + 6 \\
 m - 2p = 4
 \end{array}$$

Cevap: E

$$\begin{array}{r}
 9. \quad \frac{8}{a-2} + \frac{7}{b+4} = 10 \\
 + \quad -2/ \quad \frac{4}{a-2} - \frac{3}{b+4} = -8 \\
 \hline
 \frac{13}{b+4} = 10 + 16 \\
 \frac{13}{b+4} = \frac{26}{2} \\
 1 = 2b + 8 \\
 -7 = 2b \Rightarrow b = \frac{-7}{2}
 \end{array}$$

Cevap: B

$$\begin{array}{r}
 10. \quad \frac{a+b}{2} = 3 \Rightarrow a + b = 6 \\
 \frac{b+c}{3} = 2 \Rightarrow -/ \quad b + c = 6 \\
 \frac{a+c}{4} = 4 \Rightarrow + \quad a + c = 16 \\
 \hline
 2a = 6 - 6 + 16 \\
 2a = 16 \\
 a = 8
 \end{array}$$

Cevap: A

$$\begin{array}{r}
 11. \quad mx + ny = 11 \\
 + \quad \quad \quad nx + my = 17 \\
 \hline
 mx + nx + my + ny = 28 \\
 x(m+n) + y(m+n) = 28 \\
 (m+n)(x+y) = 28 \\
 4(x+y) = 28 \Rightarrow x+y = 7 \text{ olur.}
 \end{array}$$

Cevap: D

$$\begin{array}{r}
 12. \quad 2x - y = 4 \\
 + \quad 3x + y = 11 \Rightarrow 9 + y = 11 \\
 \hline
 5x = 15 \quad y = 2 \\
 x = 3 \\
 \\
 \Rightarrow x = 3 \text{ ve } y = 2 \text{ için } ax + 2ay = 21 \\
 3a + 4a = 21 \\
 7a = 21 \\
 a = 3
 \end{array}$$

Cevap: A

$$\begin{array}{r}
 13. \quad x - y = 18 \\
 + \quad y + z = -4 \\
 \hline
 x + z = 14 \\
 \Rightarrow x^2 + xz = 42 \\
 x(x + z) = 42 \\
 \quad \quad \quad \underbrace{\quad\quad\quad}_{14} \\
 14x = 42 \Rightarrow x = 3 \\
 \Rightarrow x + z = 14 \\
 3 + z = 14 \Rightarrow z = 11
 \end{array}$$

$$\begin{array}{r}
 14. \bullet \quad 6/a - c = 5 \\
 + \quad 6c - 3b = 10 \\
 \hline
 6a - 3b = 30 + 10 = 40 \\
 \bullet \quad \frac{3a - c}{b + 2c} \times \frac{3}{2} \\
 6a - 2a = 3b + 6c \\
 6a - 3b = 8c \\
 40 = 8c \Rightarrow c = 5
 \end{array}$$

Cevap: A

$$\begin{array}{r}
 15. \bullet \quad \frac{3x + y}{2y} = 0 \\
 3x + y = 0 \quad \Rightarrow \quad z = 0 \\
 y = -3x \quad \quad \quad x \neq 0 \\
 \bullet \quad y - z = 3 \Rightarrow y = 3 \\
 \bullet \quad y = -3x \\
 3 = -3x \\
 x = -1
 \end{array}$$

Cevap: B

$$\begin{array}{l}
 9. \quad \left. \begin{array}{l} 3/a - b = 1 \\ a + 3c = 4 \\ + \quad a + 3b - 3c = 8 \end{array} \right\} \begin{array}{l} \text{Birinci denklem 3 ile çarpılıp} \\ \text{taraf tarafa toplanırsa b ve c'ler} \\ \text{birbirini yok eder.} \end{array}
 \end{array}$$

$$5a = 3 + 4 + 8$$

$$a = 3 \text{ yerine yazılırsa;}$$

$$b = 2 \text{ ve } c = \frac{1}{3} \text{ olur.}$$

$$\frac{a+b}{c} = \frac{3+2}{\frac{1}{3}} = 5 \cdot 3 = 15$$

Cevap: E

$$10. \quad x - y - z = 0 \Rightarrow x = y + z$$

$$xy = 5$$

$$+ \quad xz = 4$$

$$\underbrace{x(y+z)}_x = 9 \Rightarrow x^2 = 9 \quad x = 3$$

$$\Rightarrow x + \underbrace{y+z}_x = 2x = 2 \cdot 3 = 6 \text{ olur.}$$

Cevap: A

$$11. \quad \frac{a}{b} = ab^2 \text{ ise ; } a = a \cdot b^3, \quad b^3 = 1 \Rightarrow b = 1 \text{ gelir.}$$

$$\frac{a}{1} = a \cdot 1^2 = 10 - a \Rightarrow a = 10 - a$$

$$2a = 10 \Rightarrow a = 5 \text{ olur.}$$

$$a^2 + b^2 = 5^2 + 1^2 = 26$$

Cevap: C

$$12. \quad m = \frac{1}{n+3}$$

$$\frac{1}{m} = n + 3 \text{ olur.}$$

$$m \cdot n = \frac{1}{n+3} \cdot n = \frac{n}{n+3} \text{ olur.}$$

$$\frac{1}{m} + m \cdot n + 3m - n = n + 3 + \frac{n}{n+3} + \frac{3}{n+3} - n$$

$$= n + 3 + \frac{n+3}{n+3} - n$$

$$= \cancel{n} + 3 + 1 - \cancel{n} = 4$$

Cevap: C

$$13. \quad \frac{2x-y}{x-3} \times 4$$

$$2x - y = 4x - 12$$

$$\boxed{2x + y = 12}$$

$$\frac{3y-x}{y+2} \times \frac{1}{4}$$

$$12y - 4x = y + 2$$

$$\boxed{11y - 4x = 2}$$

$$2x + y = 12 / 2$$

$$11y - 4x = 2$$

$$+$$

$$13y = 26$$

$$\boxed{y = 2}$$

$$2x + y = 12 \rightarrow x \cdot y = 5 \cdot 2$$

$$2x + 2 = 12 \rightarrow = 10$$

$$\boxed{x = 5}$$

Cevap: D

14. • $(x + m)(y + z) = xy + xz + my + mz$
 $= 2 + xz + my + 4$

• $\frac{y}{z} = 3 \Rightarrow y = 3z$

$x \cdot y = 2 \Rightarrow 3xz = 2 \Rightarrow \boxed{xz = \frac{2}{3}}$
 \downarrow
 $3z$

• $\frac{y}{z} = 3$

$\frac{x}{z \cdot m} = 4$
 $\boxed{ym = 12}$

$\Rightarrow 2 + xz + my + 4 = 2 + \frac{2}{3} + 12 + 4 = 18 + \frac{2}{3} = \frac{56}{3}$

Cevap: B

15. • $y \cdot z = \frac{3}{x} \Rightarrow x \cdot y \cdot z = 3$ olur.

• $\left(\frac{1}{x} - y \cdot z\right) \cdot \left(\frac{1}{y} - x \cdot z\right) \cdot \left(\frac{1}{z} - x \cdot y\right)$

$\frac{1 - x \cdot y \cdot z}{x} \cdot \frac{1 - x \cdot y \cdot z}{y} \cdot \frac{1 - x \cdot y \cdot z}{z} \quad (x \cdot y \cdot z = 3)$

$= \frac{1-3}{x} \cdot \frac{1-3}{y} \cdot \frac{1-3}{z}$

$= \frac{-2 \cdot -2 \cdot -2}{x \cdot y \cdot z} = \frac{-8}{x \cdot y \cdot z} = \frac{-8}{3}$

Cevap: B

16. • $ab + 1 = 3b$

$ab - 3b = -1$

$b \cdot (a-3) = -1$

• $a^2b - 9b = -\frac{7}{2}$

$b \cdot (a^2 - 9) = -\frac{7}{2}$

$b \cdot (a-3)(a+3) = -\frac{7}{2}$

$-1 \cdot (a+3) = -\frac{7}{2}$

$a+3 = \frac{7}{2} \rightarrow a = \frac{7}{2} - 3 = \frac{1}{2}$

• $ab + 1 = 3b \quad \left(a = \frac{1}{2}\right)$

$\frac{1}{2} \cdot b + 1 = 3b$

$3b - \frac{b}{2} = 1$

$\frac{5}{2} \cdot b = 1 \rightarrow b = \frac{2}{5}$

$\Rightarrow a \cdot b = \frac{1}{2} \cdot \frac{2}{5} = \frac{1}{5}$ olur.

Cevap: C

$$1. \bullet c = \frac{1}{10} \Rightarrow b + \frac{1}{10} = \frac{3}{5}$$

$$b = \frac{3}{5} - \frac{1}{10} = \frac{5}{10} = \frac{1}{2}$$

$$\bullet a \cdot b \cdot c = 1$$

$$a \cdot \frac{1}{2} \cdot \frac{1}{10} = 1 \Rightarrow \frac{a}{20} = 1 \text{ ve } a = 20 \text{ olur.}$$

Cevap: B

$$2. b(a+c) = 36 \Rightarrow \begin{array}{l} ab + bc = 36 \\ ab - ac = -18 \\ \hline bc + ac = 54 \\ c(a+b) = 54 \\ -6 \cdot c = 54 \\ c = -9 \end{array}$$

Cevap: D

$$3. \frac{x+z}{y+3} = \frac{z}{y} \quad (z = \frac{x}{y} \text{ yazalım})$$

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

$$\frac{x(y+1)}{y+3} = \frac{x}{y} \Rightarrow y(y+1) = y+3$$

$$y^2 + y = y + 3$$

$$y^2 = 3$$

$$y = \sqrt{3} \text{ olur.}$$

Cevap: D

$$4. \frac{1}{m} + k = 5$$

$$+ \frac{1}{n} + k = 8$$

$$\frac{1}{m} + \frac{1}{n} + 2k = 13$$

$$\frac{n+m}{m \cdot n} + 2k = 13$$

$$3 + 2k = 13$$

$$2k = 10 \Rightarrow k = 5$$

Cevap: C

$$5. \underbrace{(x-y+4)^2}_0 + \underbrace{|y-8|}_0 + \underbrace{\sqrt{x-2+3}}_0 = 0$$

$$\begin{array}{l} \downarrow \qquad \qquad \downarrow \qquad \qquad \downarrow \\ x-y+4=0 \qquad y=8 \qquad 4-z+3=0 \\ x-8+4=0 \qquad \qquad \qquad z=7 \\ x=4 \end{array}$$

$$\Rightarrow x+y+z = 4+8+7 = 19$$

Cevap: A

$$6. \begin{array}{l} 3/ \quad 2n - k = 3 \\ + \quad 6m - 6n + 3k = 15 \\ \hline 6m = 9 + 15 \\ 6m = 24 \\ m = 4 \end{array}$$

Cevap: C

$$7. \underbrace{(a-2)x}_0 + \underbrace{b+4}_0 = 0$$

$$a-2=0 \quad \text{ve} \quad b+4=0$$

$$a=2 \qquad \qquad \qquad b=-4$$

$$\Rightarrow a \cdot b = 2 \cdot -4 = -8$$

Cevap: E

8. • $\frac{5x-y}{2x+y+2} \times \frac{3}{2}$

$$10x - 2y = 6x + 3y + 6$$

$$4x - 5y = 6$$

• $16x^2 - 25y^2 = 60$

$$(4x)^2 - (5y)^2 = 60$$

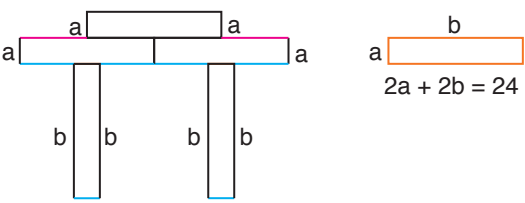
$$(4x - 5y) \cdot (4x + 5y) = 60$$

$$6 \cdot (4x + 5y) = 60$$

$$4x + 5y = 10$$

$$\Rightarrow \begin{array}{r} 4x - 5y = 6 \\ + 4x + 5y = 10 \\ \hline 8x = 16 \Rightarrow x = 2 \end{array}$$

Cevap: B

9. 

$2a + 2b = 24$

$$\Rightarrow \begin{array}{r} 2a + 2b = 24 \\ + 4a + 8b = 76 \\ \hline 6a + 10b = 100 \\ 3a + 5b = 50 \\ 3a = 50 - 5b \\ a = \frac{50 - 5b}{3} \end{array}$$

O halde $2a + 2b = 24$

$$2 \cdot \frac{50 - 5b}{3} + 2b = 24$$

$$\frac{100 - 10b}{3} + 2b = 24$$

$$100 - 10b + 6b = 72$$

$$100 - 4b = 72$$

$$28 = 4b$$

$$b = 7$$

$$\Rightarrow 2a + 2b = 24$$

$$2a + 14 = 24$$

$$2a = 10 \Rightarrow a = 5$$

Alan $a \cdot b = 5 \cdot 7 = 35$ olur.

Cevap: D

10. Mavi olmayanlar $\Rightarrow -$ / Sarı + Beyaz = 12

Sarı olmayanlar \Rightarrow Mavi + Beyaz = 10

Beyaz olmayanlar $\Rightarrow +$ Mavi + Sarı = 8

$$\begin{array}{r} 2(\text{Mavi}) = -12 + 10 + 8 \\ 2(\text{Mavi}) = 6 \\ \text{Mavi} = 3 \end{array}$$

Cevap: B

11. Tabloya göre

$$\begin{array}{r} a + c = 2b + 4 \\ a + b = 2c - 17 \\ + b + c = 3a - 5 \\ \hline 2a + 2b + 2c = 2b + 2c + 3a - 18 \\ 18 = a \end{array}$$

Cevap: B

12. • $\frac{x(x-y)}{y(x-y)} \Rightarrow \frac{9}{5} \Rightarrow \frac{x}{y} = \frac{9}{5}$

$x = 9k$ ve $y = 5k$

• $x(x-y) = 9$

$$9k(9k - 5k) = 9$$

$$9k \cdot 4k = 9 \Rightarrow k^2 = \frac{1}{4} \text{ ve } k = \frac{1}{2}$$

• $x + y = 9k + 5k = 14k = 14 \cdot \frac{1}{2} = 7$

Cevap: E

13. $a + 2b + 3c - \frac{a - 2b + c}{3}$

$$= \frac{3a + 6b + 9c - a + 2b - c}{3}$$

$$= \frac{2a + 8b + 8c}{3}$$

$$= \frac{2(a + 4b + 4c)}{3} = \frac{2 \cdot 18}{3} = 12$$

Cevap: D

14. • $a - b = 4$ ($a = 5b$)
 $5b - b = 4$
 $4b = 4$
 $b = 1$

• $a - b = 4$
 $a - 1 = 4$
 $a = 5$

$\Rightarrow a + b = 5 + 1 = 6$

Cevap: D

15. $\frac{a+1}{2ab^2} + \frac{4b+2}{2ba^2} = \frac{a^2+a+4b^2+2b}{2a^2b^2}$

$\frac{4ab}{2a^2b^2} + \frac{a+2b+a^2+4b^2}{2a^2b^2} = \frac{a^2+4ab+4b^2}{2a^2b^2}$

$\frac{(a+2b)^2}{2a^2b^2} = \frac{(4ab)^2}{2a^2b^2} = \frac{16a^2b^2}{2a^2b^2} = 8$

Cevap: B

16. $(531) + (2x6) = 0$

$(5+3)(3-1) + (2+x).(x-6) = 0$
 $16 + 2x - 12 + x^2 - 6x = 0$
 $4 - 4x + x^2 = 0$
 $x^2 - 4x + 4 = 0$
 $(x-2)^2 = 0$
 $x - 2 = 0$
 $x = 2$ olur.

Cevap: B

$$1. \quad \frac{m}{4} + \frac{2m+2}{3} = \frac{4}{3}$$

$$\begin{aligned} 2m + 4 + 3 - 2(2m + 2) &= 2 \cdot 4 + 3 \\ 2m + 4 + 3 - 4m - 4 &= 11 \\ -2m + 3 &= 11 \\ -2m &= 8 \\ m &= -4 \end{aligned}$$

Cevap: B

$$2. \quad \begin{array}{l} \text{Canan} \rightarrow \begin{array}{l} \text{Tam} \\ m + 4 \end{array} \quad \begin{array}{l} \text{Öğrenci} \\ 20 - (m + 4) \end{array} \\ \text{Cem} \rightarrow 18 - (m + 1) \quad m + 1 \end{array}$$

$$\begin{aligned} \frac{5}{15}(m + 4) + \frac{3}{9}(20 - (m + 4)) &= \frac{5}{15}(18 - (m + 1)) + \frac{3}{9}(m + 1) \\ 5m + 20 + 3 \cdot 16 - 3m &= 5 \cdot 17 - 5m + 3m + 3 \\ 2m + 68 &= 85 - 5m + 3m + 3 \\ 2m + 68 &= 88 - 2m \\ 4m &= 20 \\ m &= 5 \end{aligned}$$

Cevap: B

$$3. \quad \text{Küp} \rightarrow x$$

$$\text{Silindere} \rightarrow y$$

$$\begin{array}{r} 3/ \quad 2x + y = 14 \\ - \quad x + 3y = 22 \quad \rightarrow \quad 4 + 3y = 22 \\ \hline \quad 5x = 42 - 22 \quad \quad 3y = 18 \\ \quad 5x = 20 \quad \quad \quad y = 6 \\ \quad x = 4 \\ \Rightarrow x + y = 4 + 6 = 10 \text{ olur.} \end{array}$$

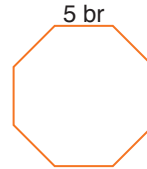
Cevap: D

$$4. \quad \begin{aligned} &\bullet \quad a + 7b = \text{boş} + \text{içindeki gaz} \\ &\bullet \quad a + 7b = a - 3b + \text{Gaz} \\ &\quad 10b = \text{Gaz} \\ &\bullet \quad \frac{\text{Gaz}}{2} + \text{boş} = \frac{10b}{2} + a - 3b \\ &\quad \quad \quad = a + 2b \end{aligned}$$

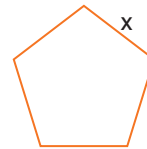
Cevap: B

TASARI EĞİTİM YAYINLARI

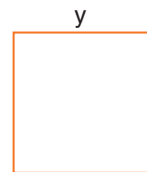
5.



$$\text{Çevre} = 8 \cdot 5 = 40$$



$$\begin{aligned} \text{Çevre} &= 5x = 40 \\ x &= 8 \text{ br} \end{aligned}$$



$$\begin{aligned} \text{Çevre} &= 4y = 40 \\ y &= 10 \text{ br} \end{aligned}$$

$$\Rightarrow x + y = 8 + 10 = 18 \text{ br}$$

Cevap: E

6. • $\frac{1}{3m} - n = \frac{a}{2}$

$$\frac{1-3mn}{3m} = \frac{a}{2} \Rightarrow 1-3mn = \frac{3ma}{2}$$

• $\frac{1}{n} - 3m = \frac{5a}{2}$

$$\frac{1-3mn}{n} = \frac{5a}{2} \Rightarrow 1-3mn = \frac{5an}{2}$$

$$\Rightarrow \frac{3m \cancel{a}}{2} = \frac{5 \cancel{a} n}{2}$$

$$3m = 5n$$

$$\Rightarrow \frac{m}{n} = \frac{5}{3} \text{ olur.}$$

Cevap: A

7. • $m - 2\sqrt{m} - 2 = 0$

$$m - 2 = 2\sqrt{m}$$

• $\frac{m}{(m-2)^2} = \frac{m}{(2\sqrt{m})^2} = \frac{m}{4m} = \frac{1}{4}$

Cevap: B

8. $\frac{a}{2^2 \cdot 3 \cdot 7} + \frac{b}{2^3 \cdot 3^2} - \frac{c}{2 \cdot 3 \cdot 7} = \frac{17}{252}$

$$\frac{6a + 7b - 12c}{2^3 \cdot 3^2 \cdot 7} = \frac{17}{2^2 \cdot 3^2 \cdot 7}$$

$$6a + 7b - 12c = 34 \text{ olur.}$$

Cevap: C

9. $\frac{a}{b + \frac{1}{a}} - \frac{7b}{a + \frac{1}{b}} = \frac{18b^2}{ab + 1}$

$$\frac{a}{\frac{ab+1}{a}} - \frac{7b}{\frac{ab+1}{b}} = \frac{18b^2}{ab+1}$$

$$\frac{a^2 - 7b^2}{ab+1} = \frac{18b^2}{ab+1}$$

$$a^2 - 7b^2 = 18b^2$$

$$a^2 = 25b^2$$

$$a = 5b \Rightarrow \frac{b}{a} = \frac{b}{5b} = \frac{1}{5}$$

Cevap: A

10. $\frac{1}{3x-y+4} + \frac{1}{x+y+12} = 1$

$$\Rightarrow \frac{1}{3x-y+4} = 2$$

$$\frac{1}{x+y+12} = 2 \rightarrow -3+y+12=2$$

$$4x+16=4 \quad y=-7$$

$$4x=-12$$

$$x=-3$$

$$\Rightarrow x \cdot y = -3 \cdot -7 = 21$$

Cevap: A

11. $4s + p + 22 = 50$

$$4s + p = 28$$

$$s + 2p + 29 = 50$$

$$-4/ \quad s + 2p = 21$$

$$\frac{-7p = -56}{8}$$

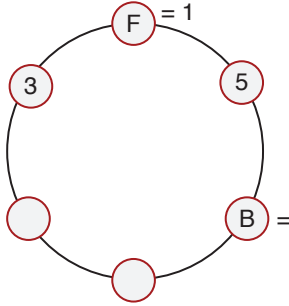
$$p + x = 50$$

$$8 + x = 50$$

$$x = 42$$

Cevap: A

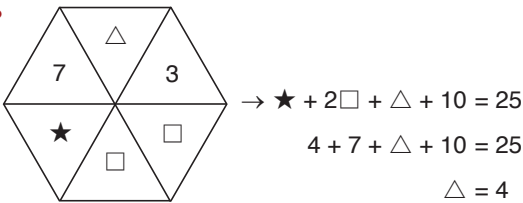
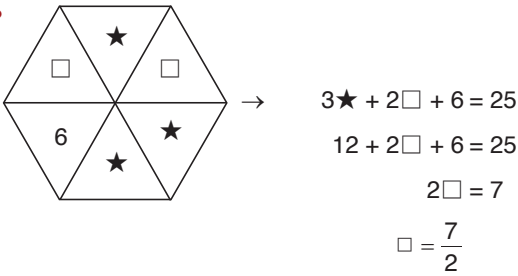
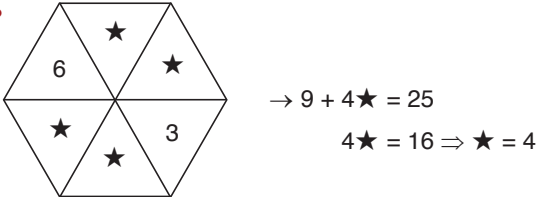
12.



- F, 3 ile 5'in komşusu olduğundan 2, 4, 6 olamaz. O halde 1'dir.
- B, 5 ile komşu olduğundan 4 ile 6 olamaz. O halde 2'dir.
O halde $F + B = 1 + 2 = 3$ olur.

Cevap: A

13.

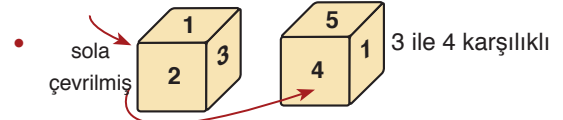
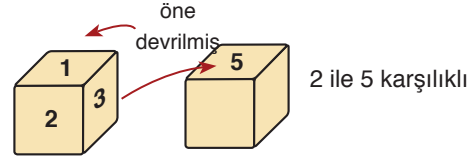


$$\Rightarrow \square \cdot \triangle \cdot \star = \frac{7}{2} \cdot 4 \cdot 4 = 56$$

olur.

Cevap: B

14.



O halde 1 ile 6 karşılıklı

- Üst yüzeye gelen sayı x alt yüzeye gelen sayı y olsun.
O halde,

$$4x + 3y + 3 = 3x + 4y$$

$$3 = y - x \rightarrow \text{sayıların farkı 3 olmalı.}$$

O halde $y = 5$ ve $x = 2$ dir.

Cevap: B