

1. •  $a = 2b = 3c = 6k$   
 $a = 6k, b = 3k, c = 2k$   
 •  $a + b - c = 35$   
 $6k + 3k - 2k = 35$   
 $7k = 35$   
 $k = 5$  olur.  
 $\Rightarrow a + b + c = 6k + 3k + 2k = 11k = 55$  olur.

Cevap: D

2.  $\frac{a}{b} = \frac{b}{c} = \frac{c}{d} = 2$   
 $\frac{a \cdot b \cdot c}{b \cdot c \cdot d} = 2^3$   
 $\frac{a}{d} = 8$  olur.

Cevap: D

3. a/  $2x = 3y \Rightarrow 2ax = 3ay$   
 2/  $4y = a.z \Rightarrow 8y = 2a.z$   
 $\Rightarrow x = 3ak$   
 $y = 2ak$   
 $+ z = 8k$   
 $5ak + 8k$  (küçük olması için  
 $k = 1$  olur)  
 $\Rightarrow 5a + 8 = 43$   
 $5a = 35$   
 $a = 7$ 'dir.

Cevap: D

4. •  $\frac{1}{ax} = \frac{2}{13} \Rightarrow \frac{1}{x} = \frac{2a}{13}$   
 •  $\frac{1}{by} = \frac{2}{13} \Rightarrow \frac{1}{y} = \frac{2b}{13}$   
 •  $\frac{1}{cz} = \frac{2}{13} \Rightarrow \frac{1}{z} = \frac{2c}{13}$   
 $\Rightarrow \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{2a}{13} + \frac{2b}{13} + \frac{2c}{13} = \frac{2}{13}(a + b + c)$   
 $= \frac{2}{13} \cdot 26 = 4$  olur.

Cevap: C

5.  $xyz = 9k$   
 $yzx = 16k$   
 $+ zxy = 12k$   
 $111(x + y + z) = 37k \Rightarrow 111 \cdot 9 = 37 \cdot k$   
 $\boxed{27 = k}$   
 $\Rightarrow zxy = 12 \cdot k = 12 \cdot 27 = 324$  olur.

Cevap: D

6.  $\frac{a+b}{a-2c} = \frac{a+c}{b-c} = \frac{b+c}{4c} = k$   
 $\frac{a+b+a+c+b+c}{a-2c+b-c+4c} = k$   
 $\frac{2(a+b+c)}{a+b+c} = k \Rightarrow k = 2$   
 $\Rightarrow \frac{b+c}{4c} = 2$   
 $b + c = 8c$  ve  $b = 7c$   
 O halde  $\frac{b}{c} = \frac{7c}{c} = 7$  olur.

Cevap: D

7. •  $\frac{x}{y} = \frac{z}{t} = 5$

$$\frac{3x}{3y} = \frac{3z}{3t} = 5$$

$$\frac{3x + \textcircled{3z}}{3y + 3t} = 5 \text{ ve } \frac{3x + \textcircled{18}}{3y + 3t} = 5$$

$$\Rightarrow 3z = 18$$

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

Cevap: A

8.  $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \frac{5}{6}$

$$\frac{3a}{3b} = \frac{c}{d} = \frac{4e}{4f} = \frac{5}{6}$$

3./  $\frac{3a + c + 4e}{3b + d + 4f} = \frac{5}{6}$

$$\frac{9a + 3c + 12e}{3b + d + 4f} = 3 \cdot \frac{5}{6} = \frac{5}{2} \text{ olur.}$$

Cevap: B

9. •  $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = k$  olsun

•  $\left(\frac{a+b}{b}\right) \cdot \left(\frac{c+2d}{d}\right) \cdot \left(\frac{e+3f}{f}\right) = 24$

$$\left(\frac{a}{b} + \frac{b}{b}\right) \left(\frac{c}{d} + \frac{2d}{d}\right) \left(\frac{e}{f} + \frac{3f}{f}\right) = 24$$

$$\left(\frac{a}{b} + 1\right) \cdot \left(\frac{c}{d} + 2\right) \cdot \left(\frac{e}{f} + 3\right) = 24$$

$$(k + 1) \cdot (k + 2) \cdot (k + 3) = 24$$

$$k = 1 \text{ olur.}$$

$$\Rightarrow \frac{a}{b} = \frac{c}{d} = \frac{e}{f} = 1 \Rightarrow a = b, c = d, e = f \text{ olur.}$$

$$\Rightarrow \frac{a+c+e}{b+d+f} = \frac{b+d+f}{b+d+f} = 1 \text{ dir.}$$

Cevap: C

10.  $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \frac{10}{3}$

$$\frac{3a}{3b} = \frac{-3c}{-3d} = \frac{e}{f} = \frac{10}{3}$$

$$\frac{3a - 3c + e}{3b - 3d + f} = \frac{10}{3}$$

$$\frac{\overset{2}{\cancel{20}}}{3 - 3d} = \frac{\overset{10}{\cancel{10}}}{3} \Rightarrow 3 - 3d = 6$$

$$-3d = 3$$

$$d = -1$$

Cevap: B

11.  $(x.y) : (y.z) : (x.z) = 3 : 4 : 6$

$$x.y = 3k$$

$$y.z = 4k \text{ olur.}$$

$$x.z = 6k$$

$$\Rightarrow \frac{y.z}{x.y} = \frac{4k}{3k} \Rightarrow \frac{z}{x} = \frac{4}{3}$$

$$\Rightarrow \frac{x.y}{x.z} = \frac{3k}{6k} \Rightarrow \frac{y}{z} = \frac{1}{2}$$

O halde  $\frac{z}{x} \cdot \frac{y}{z} = \frac{4}{3} \cdot \frac{1}{2} = \frac{4}{3} \cdot 2 = \frac{8}{3} \text{ olur.}$

Cevap: B

12.  $\frac{x}{2a+b} = \frac{y}{3a-2c} = \frac{z}{2c-b} = k$

$$\Rightarrow \frac{x+y+z}{2a+b+3a-2c+2c-b} = k \text{ olur. (x+y+z=10)}$$

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

•  $\frac{x}{2a+b} = k$  olduğundan

$$\frac{x}{2a+b} = \frac{2}{a} \Rightarrow x = \frac{4a+2b}{a} \text{ olur.}$$

Cevap: D