

$$1. \left(\frac{1}{4} - \frac{2}{3}\right) : \left(1\frac{1}{4}\right)$$

$$\left(\frac{1}{4} - \frac{8}{12}\right) : \left(\frac{4+1}{4}\right)$$

$$\left(\frac{3-8}{12}\right) : \left(\frac{5}{4}\right)$$

$$\frac{3-8}{12} \cdot \frac{4}{5} = \frac{-29}{15}$$

Cevap: B

$$2. \frac{1}{4} - \frac{1}{3} \left(\frac{1}{2} - \frac{1}{3}\right) - \frac{1}{2} \left(\frac{1}{2} - \frac{1}{3}\right)$$

$$\frac{1}{4} - \frac{1}{3} \cdot \frac{1}{6} - \frac{1}{2} \cdot \frac{1}{6}$$

$$\frac{1}{4} - \frac{1}{18} - \frac{1}{12} = \frac{9-2-3}{36} = \frac{4}{36} = \frac{1}{9}$$

Cevap: A

$$3. 3 \cdot \left(1 - \left(\frac{1}{3} - \left(1 - \frac{1}{6}\right)\right)\right)$$

$$= 3 \cdot \left(1 - \left(\frac{1}{3} - \frac{5}{6}\right)\right)$$

$$= 3 \cdot \left(1 - \left(-\frac{3}{6}\right)\right)$$

$$= 3 \cdot \left(1 + \frac{3}{6}\right)$$

$$= 3 \cdot \frac{9}{6}$$

$$= \frac{9}{2}$$

Cevap: A

4. İşlem önceliğine göre ilk bölme işlemi yapılırsa;

$$2 + \frac{3}{5} \cdot \frac{5}{2} + \frac{7}{2} \Rightarrow 2 + \frac{3}{2} + \frac{7}{2}$$

$$\Rightarrow 2 + \frac{10}{2}$$

$$\Rightarrow 2 + 5 = 7 \text{ olur.}$$

Cevap: B

5.  $\left(\frac{1-\frac{2}{5}}{x}\right) \cdot \left(\frac{2}{3} - \frac{1}{2} \cdot \frac{3}{8}\right)$  ilk önce parantez içi yapılırsa

$$\Rightarrow \frac{3}{5} \cdot \left(\frac{2}{3} - \frac{1}{2} \cdot \frac{3}{8}\right)$$

$$\Rightarrow \frac{3}{5} \cdot \left(\frac{2}{3} - \frac{4}{8}\right) = \frac{3}{5} \cdot \left(-\frac{2}{8}\right) = -\frac{2}{5}$$

Cevap: A

$$6. \frac{\left(\frac{2-\frac{2}{3}}{x}\right)}{\left(\frac{1+\frac{1}{2}}{x}\right)} : \frac{\left(\frac{1-\frac{1}{5}}{x}\right)}{\left(\frac{2-\frac{7}{5}}{x}\right)} = \frac{4}{3} : \frac{4}{5}$$

$$\Rightarrow \frac{4}{3} \cdot \frac{2}{3} \cdot \frac{4}{5} \cdot \frac{5}{3} \Rightarrow \frac{8}{9} \cdot \frac{4}{3}$$

$$\Rightarrow \frac{8}{9} \cdot \frac{4}{3} = \frac{2}{3} \text{ bulunur.}$$

Cevap: E

$$7. a = \left(1 - \frac{1}{x}\right) \cdot \left(1 - \frac{2}{x}\right) \cdot \left(1 - \frac{4}{x}\right)$$

$$\boxed{a = \frac{1}{2} \cdot \frac{3}{5} \cdot \frac{3}{7}} \text{ olur.}$$

$$b = \left(1 + \frac{1}{2}\right) \cdot \left(1 + \frac{1}{3}\right) \cdot \left(2 + \frac{3}{2}\right)$$

$$\boxed{b = \frac{3}{2} \cdot \frac{4}{3} \cdot \frac{7}{2}} \text{ bulunur.}$$

$$a \cdot b = \frac{1}{2} \cdot \frac{3}{5} \cdot \frac{3}{7} \cdot \frac{3}{2} \cdot \frac{4}{3} \cdot \frac{7}{2} = \frac{9}{10} \text{ çıkar.}$$

Cevap: B

$$8. \frac{3\frac{1}{2} - 1\frac{1}{3}}{2 + \frac{1}{3} + 3\frac{1}{2}} = \frac{3 + \frac{1}{2} - \left(1 + \frac{1}{3}\right)}{2 + \frac{1}{3} + 3 + \frac{1}{2}} = \frac{\frac{2}{1} + \frac{1}{2} - \frac{1}{3}}{\frac{5}{1} + \frac{1}{2} + \frac{1}{3}}$$

$$= \frac{\frac{12+3-2}{6}}{\frac{30+3+2}{6}} = \frac{\frac{13}{6}}{\frac{35}{6}} = \frac{13}{6} \cdot \frac{6}{35} = \frac{13}{35}$$

Cevap: A

$$9. \left(\frac{x}{y} \cdot \frac{y}{z}\right) \cdot \frac{x}{y}$$

$$\left(\frac{xz}{y} \cdot \frac{x}{yz}\right) \cdot \frac{y}{x}$$

$$\frac{x \cdot z \cdot x \cdot y}{y \cdot y \cdot z \cdot x} = \frac{x}{y}$$

Cevap: D

$$10. \frac{\frac{2}{5} + \frac{3}{14} + \frac{7}{22}}{\frac{2}{5} + \frac{3}{14} + \frac{7}{22}} \text{ yazılabilir.}$$

$\frac{1}{3}$  parantezine alırsa;

$$\frac{\frac{1}{3} \cdot \left(\frac{2}{5} + \frac{3}{14} + \frac{7}{22}\right)}{\frac{2}{5} + \frac{3}{14} + \frac{7}{22}} = \frac{1}{3} \text{ olur.}$$

Cevap: B

$$11. \frac{10}{7} \cdot \frac{1}{1 + \frac{1}{7}} - 4 \Rightarrow \frac{10}{7} \cdot \frac{1}{1 + \frac{1}{7}} - 4$$

$$\Rightarrow \frac{10}{7} \cdot \frac{1}{\frac{8}{7}} - 4$$

$$\Rightarrow \frac{10}{7} \cdot \frac{7}{8} - 4 \Rightarrow 1 - 4 = -3 \text{ bulunur.}$$

Cevap: E

$$12. \frac{22}{0,22} \cdot \frac{0,6}{6} \cdot \frac{0,66}{33}$$

$$\frac{2200}{22} \cdot \frac{6}{60} \cdot \frac{66}{3300}$$

$$100 \cdot \frac{1}{10} \cdot \frac{1}{50} = \frac{100}{500} = \frac{1}{5} = 0,2$$

Cevap: B

$$13. \left( \frac{15}{100} : \frac{155}{31} \right) \cdot 25 \text{ yazılabilir.}$$

$$\begin{aligned} & \left( \frac{150}{75} : \frac{155}{31} \right) \cdot 25 \Rightarrow \left( \frac{2}{1} : \frac{5}{1} \right) \cdot 25 \\ & \Rightarrow \left( \frac{2}{1} \cdot \frac{1}{5} \right) \cdot 25 \\ & \Rightarrow \frac{2}{5} \cdot 25 = 10 \end{aligned}$$

Cevap: A

$$14. \frac{0,15}{0,5} \cdot \frac{0,6}{0,03} - \frac{2}{10}$$

$$\Rightarrow \frac{15}{100} \cdot \frac{6}{100} - \frac{2}{10}$$

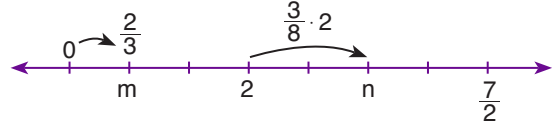
$$\Rightarrow \frac{15}{10} \cdot \frac{1}{5} \cdot \frac{6}{1} \cdot \frac{10}{3} - \frac{2}{10} \Rightarrow 6 - \frac{1}{5} = \frac{29}{5} \text{ olur.}$$

Cevap: D

15. 0 ile 2 arası 3 eşit bölme olduğu için her bir bölmenin uzunluğu  $\frac{2}{3}$  br olur.

2 ile  $\frac{7}{2}$  arası 4 eşit bölme olduğu için her bir bölme;

$$\frac{\frac{7}{2} - 2}{4} = \frac{\frac{3}{2}}{4} = \frac{3}{8} \text{ br olur.}$$



$$\begin{aligned} m &= \frac{2}{3} \\ n &= 2 + \frac{6}{8} = \frac{22}{8} \end{aligned} \left. \vphantom{\begin{aligned} m &= \frac{2}{3} \\ n &= 2 + \frac{6}{8} = \frac{22}{8} \end{aligned}} \right\} m \cdot n = \frac{2}{3} \cdot \frac{22}{8} = \frac{11}{6}$$

Cevap: D