

Exercise - 8

$$\begin{aligned} 1. (a) (16+12) - (2 \times 6) \\ = 28 - 12 \\ = 16 \end{aligned}$$

$$\begin{aligned} (b) 84 \div (72 \div 6) \\ = 84 \div 12 \\ = 7 \end{aligned}$$

$$\begin{aligned} (c) (83 - 38) \times 15 \\ = 45 \times 15 \\ = 675 \end{aligned}$$
$$\begin{array}{r} \textcircled{7} \textcircled{13} \\ 83 \\ - 38 \\ \hline 45 \\ \times 15 \\ \hline 225 \\ + 45 \times \\ \hline 675 \end{array}$$

$$\begin{aligned} (d) (20 \times 8) \div (10 \div 4) \\ = 160 \div 40 \\ = 4 \end{aligned}$$
$$\begin{array}{r} 10 \text{ of } 4 \\ = 10 \times 4 \\ = 40 \\ 40 \overline{)160} \text{ (4)} \\ \underline{-160} \\ \hline \end{array}$$

$$\begin{aligned} (e) 24 + 15 \div 3 \times (4-2) \\ = 24 + 15 \div 3 \times 2 \\ = 24 + 5 \times 2 \\ = 24 + 10 = 34 \end{aligned}$$

$$\begin{aligned} (f) (15 \times 3) \div 5 \times 8 - 2 + 6 \times (8-2) \\ = 45 \div 5 \times 8 - 2 + 6 \times 6 \\ = 9 \times 8 - 2 + 36 \\ = 72 - 2 + 36 \\ = 70 + 36 = 106 \end{aligned}$$

$$2. (a) 12 \times 6 \div 3 \text{ and } 12 \times (6 \div 3)$$

$$\begin{aligned} 12 \times 6 \div 3 \text{ — (1)} \\ = 72 \div 3 = 24 \end{aligned}$$

$$\begin{aligned} 12 \times (6 \div 3) \text{ — (2)} \\ = 12 \times 2 = 24 \end{aligned}$$

\therefore 1 and 2 are equal. ~~proved~~

$$(b) (11 \times 8) - 6 \text{ and } 11 \times (8 - 6)$$

$$\begin{aligned} (11 \times 8) - 6 \text{ — (1)} \\ = 88 - 6 = 82 \end{aligned}$$

$$\begin{aligned} 11 \times (8 - 6) \text{ — (2)} \\ = 11 \times 2 = 22 \end{aligned}$$

\therefore 1 and 2 are not equal.

$$\begin{aligned} 3. (a) & 5 \times \{ 10 - (15 - 6) \} \\ & = 5 \times \{ 10 - 9 \} \\ & = 5 \times 10 = 50 \end{aligned}$$

$$\begin{aligned} (b) & 20 + \{ 5 \times (72 - 42) \} \\ & = 20 + \{ 5 \times 30 \} \\ & = 20 + 150 = 170 \end{aligned}$$

$$\begin{aligned} (c) & 40 - \{ (17 - 3) \div (20 - 13) \} \\ & = 40 - \{ 14 \div 7 \} \\ & = 40 - 2 = 38 \end{aligned}$$

$$\begin{aligned} (d) & (30 \div 10) + \{ (6 \times 12) \div 8 \} \\ & = 3 + \{ 72 \div 8 \} \\ & = 3 + 9 = 12 \end{aligned}$$

$$\begin{aligned} (e) & \{ 7 + (5 \times 3) \} - 12 + 6 \text{ of } 3 \\ & = \{ 7 + 15 \} - 12 + 6 \text{ of } 3 \\ & = 22 - 12 + 6 \text{ of } 3 \\ & = 10 + 6 \text{ of } 3 \quad [6 \text{ of } 3 = 6 \times 3 = 18] \\ & = 10 + 18 = 28 \end{aligned}$$