

Chapter- 12

Simplification - BODMAS Rule

WORKSHEET

1. Fill in the blanks :

- a. Sums involving Bar bracket are to be solved first.
- b. These () brackets are called bracket or common bracket. \rightarrow Parentheses
- c. In B O D M A S "M" stands for Multiplication
- d. We remove the Square bracket last while simplifying.
- e. While simplifying, Subtraction is the last operation to be solved.

2. Simplify :

a. $76 \div 4 + 8 - 3 \times 2$

Ans. $76 \div 4 + 8 - 3 \times 2$
 $= 19 + 8 - 3 \times 2$
 $= 19 + 8 - 6 = 27 - 6 = 21$

b. $54 \div 9 \times 6 - 4 + 3 + 8$

Ans. $54 \div 9 \times 6 - 4 + 3 + 8$
 $= 6 \times 6 - 4 + 3 + 8$
 $= 36 - 4 + 3 + 8$
 $= 36 + 3 + 8 - 4$
 $= 47 - 4 = 43$

3. Simplify the following

a. $12 - [20 \div \{8 - 2(9 - 5 - 2)\}]$

Ans. $12 - [20 \div \{8 - 2(9 - 5 - 2)\}]$
 $= 12 - [20 \div \{8 - 2(9 - 7)\}]$
 $= 12 - [20 \div \{8 - 2 \times 2\}]$
 $= 12 - [20 \div \{8 - 2 \times 2\}]$
 $= 12 - [20 \div 4] = 12 - 5$
 $= 7$

$$b. 25 - \frac{1}{2} \{ 5 + 4 - (3 + 2 - \overline{1+3}) \}$$

$$\begin{aligned} \text{Ans. } & 25 - \frac{1}{2} \{ 5 + 4 - (3 + 2 - \overline{1+3}) \} \\ & = 25 - \frac{1}{2} \{ 5 + 4 - (3 + 2 - 4) \} \\ & = 25 - \frac{1}{2} \{ 5 + 4 - (5 - 4) \} \\ & = 25 - \frac{1}{2} \{ 5 + 4 - 1 \} \\ & = 25 - \frac{1}{2} \{ 8 \} \\ & = 25 - \frac{1}{2} \times 8 = 25 - 4 \\ & = 21 \end{aligned}$$

$$c. 0.4 \div [1.5 \div \{ 0.6 \div (0.3 - \overline{0.3 - 0.1}) \}]$$

$$\begin{aligned} \text{Ans. } & 0.4 \div [1.5 \div \{ 0.6 \div (0.3 - \overline{0.3 - 0.1}) \}] \\ & = 0.4 \div [1.5 \div \{ 0.6 \div (0.3 - \overline{0.3 - 0.1}) \}] \\ & = 0.4 \div [1.5 \div \{ 0.6 \div \{ 0.3 - 0.1 \} \}] \\ & = 0.4 \div [1.5 \div 6] \\ & = 0.4 \div 0.25 \\ & = 1.6 \end{aligned}$$