

## Chapter - 12

### Simplification = BODMAS Rule

1. Fill in the bodmas

a. Sums involving Bar bracket are solved first.

b. These  $()$  brackets are called Parentheses or common brackets.

c. In BODMAS '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

$$a. 76 \div 4 + 8 - 3 \times 2 = 19 + 8 - 3 \times 2 = 19 + 8 - 6 = 27 - 6 = 21 \text{ (Answer)}$$

$$b. 54 \div 9 \times 6 - 4 + 3 + 8 = 6 \times 6 - 4 + 3 + 8 = 36 - 4 + 3 + 8 = 36 - 15 = 21 \text{ (Answer)}$$

3. Simplify the following

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

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

$$\frac{50}{2} \{5 + 4(3 + 2 - 4)\} =$$

$$\frac{50}{2} \{5 + 4 - (5 - 4)\} =$$

$$\frac{50}{2} \{5 + 4 - 1\} =$$

$$\frac{50}{2} = 25$$

$$d. \Rightarrow 25 - \frac{1}{2} \{ 5+4 (3+2-7+3) \}$$

$$\Rightarrow 25 - \frac{1}{2} \{ 5+4 - (3+2-4) \}$$

$$\Rightarrow 25 - \frac{1}{2} \{ 5+4 - (5-4) \}$$

$$\Rightarrow 25 - \frac{1}{2} \{ 5+4-1 \}$$

$$\Rightarrow 25 - \frac{1}{2} \{ 9-1 \}$$

$$\Rightarrow 25 - \frac{1}{2} \times 8$$

$$\Rightarrow 25 - \frac{1}{2} \times 8$$

$$\Rightarrow 25 - 4$$

$$\Rightarrow 21 \text{ (ANS)}$$

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

$$\Rightarrow 0.4 \div [ 1.5 \div \{ 0.6 \div (0.3 - 0.2) \} ]$$

$$\Rightarrow 0.4 \div [ 1.5 \div \{ 0.6 \div 0.1 \} ]$$

$$\Rightarrow 0.4 \div [ 1.5 \div 6 ] \}$$

$$\Rightarrow 0.4 \div 0.25$$

$$\Rightarrow 1.6 \text{ (ANSWER).}$$