Chapter- 12

Simplification - BODMAS Rule

STUDY NOTES

<mark>**This lesson will help you to:**</mark>

- Know the order of solving mathematical operations.
- Calculate the value when more than one operation is given.
- Know the types of brackets
- Calculate value by using the correct ordering rule : B O D M A S

Simplification:

In math, simplification is the act of organizing operations according to the order and finding the value.

<mark>**TYPES OF BRACKETS:**</mark>
1. **Bar bracket**
2. **Common bracket/ Parentheses**
3. **Curly Bracket**
4. **Square bracket**

Symbol	Name
_	vinculum or bar
()	parentheses as small brackets
{}	Braces or curly brackets
[]	square brackets

Example: $92 \div [18 + 4 \{ 6 + (12 - \overline{10 + 1}) \}$ [bar bracket 10 + 1 = 11]

= $92 \div [18 + 4 \{ 6 + (12 - 11) \}]$ [common bracket 12 – 11 = 1]

= $92 \div [18 + 4 \{ 6 + 1 \}]$ [curly bracket 6 + 1]

= $92 \div [18 + 4 \times 7]$ [square bracket 18 + 4 x 7 = 18 + 28 = 46]

= $92 \div 46$ [divide 92 ÷ 46 = 2]
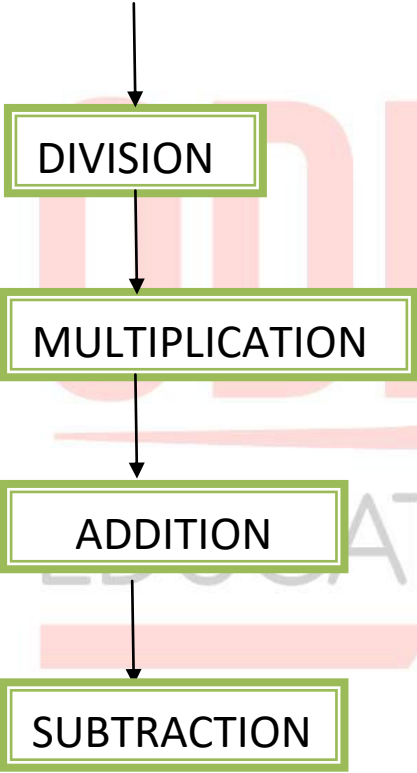
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POINTS TO REMEMBER:

➢ In mathematics we follow **DMAS rule** to solve sums involving more than one operation.

➢ DMAS stands for **Division – Multiplication- Addition – Subtraction**.

➢ BODMAS stands for **Bracket Of Division Multiplication Addition Subtraction**

➢ Sums involving **brackets** will be solved first.

➢ There are **4 types** of brackets.

➢ The order of solving sums involving brackets is :

- **Bar bracket**

- **Common bracket**

- **Curly bracket**

- **Square bracket**

MIND MAP

SIMPLIFICATION

DMAS

- DIVISION
- MULTIPLICATION
- ADDITION
- SUBTRACTION

BODMAS

- BRACKET
- OF
- DIVISION
- MULTIPLICATION
- ADDITION
- SUBTRACTION

1. Bar bracket
2. Parentheses
3. Curly bracket
4. Square bracket