



ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution

STUDY MATERIAL

CLASS -VI

Subject – Arithmetic – First Term

CHAPTER 3 – NEGATIVE NUMBERS – SIMPLIFICATION

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Simplification of Integers

BODMAS is a useful acronym that tells you the order in which you solve mathematical problems.

It's important that you follow the rules of BODMAS, because without it your answers can be wrong.

The BODMAS acronym is for:

- Brackets (parts of a calculation inside brackets always come first).
- Orders (numbers involving powers or square roots).
- Division.
- Multiplication.
- Addition.
- Subtraction.

According to the BODMAS rule :

Some examples :

1.Simplify: $37 - [5 + \{28 - (19 - 7)\}]$

$$= 37 - [5 + \{28 - (19 - 7)\}]$$

$$= 37 - [5 + \{28 - 12\}] \quad [\text{Removing the innermost bracket ()}]$$

$$= 37 - [5 + 16] \quad [\text{Removing braces \{ \}}]$$

$$= 37 - 21$$

$$= 16.$$

2.Find the value of $[32 + 2 \times 17 + (-6)] \div 15$

$$= [32 + 2 \times 17 + (-6)] \div 15$$

$$= [32 + 34 + (-6)] \div 15$$

$$= (66 - 6) \div 15$$

$$= 60 \div 15$$

$$= 60/15$$

$$= 4$$

3.Simplify: $\{36 \div (-9)\} \div \{(-24) \div 6\}$

$$\{36 \div (-9)\} \div \{(-24) \div 6\}$$

$$= \{36/-9\} \div \{-24/6\}$$

$$= - (36/9) \div - (24/6)$$

$$= (-4) \div (-4)$$

$$= -4/-4$$

$$= 4/4$$

$$= 1$$

4. Simplify : $(-5) - (-48) \div (-16) + (-2) \times 6$

$$= (-5) - (-48) \div (-16) + (-2) \times 6$$

$$= (-5) - 3 + (-2) \times 6 \text{ [Performing division } (-48) \div (-16) = 48 \div 16 = 3]$$

$$= (-5) - 3 + (-12) \text{ [Performing multiplication } (-2) \times 6 = -12]$$

$$= -5 - 3 - 12$$

$$= -8 - 12. \text{ [Performing addition } -5 - 3 = -8]$$

$$= -20 \text{ [Performing addition]}$$

5. Simplify: $52 - (2 \times 6) + 17$

$$= 52 - (2 \times 6) + 17$$

$$= 52 - 12 + 17$$

$$= 52 + 17 - 12$$

$$= 57$$

U . James Riju