Introduction to Integers

1. Introduction to Integers

Integers are a set of numbers that include:

- Positive numbers (1, 2, 3, 4, ...)
- Negative numbers (-1, -2, -3, ...)
- Zero (0)

Integers = ... -3, -2, -1, 0, 1, 2, 3, ...

Examples:

- 5 is a positive integer
- -3 is a negative integer
- 0 is neither positive nor negative

2. We See Integers in Real Life

i. Temperature

5°C and –5°C (cold weather)

ii. Bank Balance

₹100 (positive), –₹50 (overdrawn)

iii. Elevators/Floors

Floor 3 and basement -2

iv. Game Scores

Gain: +10 points, Loss: -5 points

3. Properties of Integers

- i. Integers include positive numbers, negative numbers, and zero
- ii. Zero is neutral

It is not positive or negative

iii. Every positive integer has a matching negative integer

Example: +3 and -3 are opposites

iv. Integers can be shown on a number line

Negative numbers to the left of 0, positives to the right

v. Integers follow rules for addition, subtraction, multiplication, and division **Representation on Number Line:**



- Moving right → Numbers increase
- Moving left → Numbers decrease

4. Summary:

- Integers = Positive numbers + Negative numbers + Zero
- 0 is neither positive nor negative
- Used in temperature, bank accounts, game scores
- Can be shown on number line

Example: -2, 0, and 3 are all integers