

# Grade 6 Math Formulas

## Integers Formulas

Based on Maharashtra Board Syllabus (NEP 2025-26)

### Note:

This document contains key formulas and concepts related to Integers for Grade 6.

### Integers

- Integers include positive numbers, negative numbers, and zero (... , -3, -2, -1, 0, 1, 2, 3, ...).
- Representing Integers on a Number Line: Positive numbers are to the right of 0, negative numbers are to the left of 0.
- Comparing Integers: On a number line, the number to the right is always greater than the number to the left.
- Absolute Value: The distance of an integer from zero on the number line, always positive. Example: Absolute value of 5 is 5; Absolute value of -5 is 5.

### Operations on Integers

- Addition:
  - Same signs: Add the absolute values and keep the common sign. (e.g.,  $5 + 3 = 8$ ,  $-5 + (-3) = -8$ )

- Different signs: Subtract the smaller absolute value from the larger absolute value. The sign is the sign of the number with the larger absolute value. (e.g.,  $5 + (-3) = 2$ ,  $-5 + 3 = -2$ )
- Subtraction: Subtracting an integer is the same as adding its additive inverse (opposite). Example:  $a - b = a + (-b)$ . (e.g.,  $5 - 3 = 5 + (-3) = 2$ ,  $5 - (-3) = 5 + 3 = 8$ )
- Multiplication:
  - Positive multiplied by Positive = Positive
  - Negative multiplied by Negative = Positive
  - Positive multiplied by Negative = Negative
  - Negative multiplied by Positive = Negative
- Division:
  - Positive divided by Positive = Positive
  - Negative divided by Negative = Positive
  - Positive divided by Negative = Negative
  - Negative divided by Positive = Negative

## Order of Operations (BODMAS / PEMDAS)

- B/P: Brackets / Parentheses
- O/E: Orders / Exponents (Powers, Square Roots)
- DM: Division and Multiplication (from left to right)
- AS: Addition and Subtraction (from left to right)

*End of Formulas - Integers Formulas*

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