CLASS 6 MATHS FORMULAS HANDBOOK

Class 6 Maths Formulas Handbook (Chapter-wise)

A chapter-wise, continuously updated handbook of key formulas, definitions and concepts from the Class 6 NCERT Maths textbook (Ganita Prakash, 2026-27 edition). Each section below is added as the corresponding chapter's Solutions/Extra Questions/Revision Notes are published.

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Chapter 1: Patterns in Mathematics (Ganita Prakash)

Triangular numbers: 1,3,6,10,15,… — nth term = $n(n+1)/2$.

Square numbers: 1,4,9,16,25,… — nth term = n^2.

Cube numbers: 1,8,27,64,125,… — nth term = n^3.

Virahanka numbers: 1,2,3,5,8,13,21,… — each term is the sum of the two before it.

Key identity: sum of first n odd numbers = n^2.

Complete graph with n points has $n(n-1)/2$ connecting lines.

Chapter 2: Lines and Angles

Solutions

Extra Questions

Revision Notes

Chapter 3: Number Play

Solutions

Extra Questions

Revision Notes

Chapter 4: Data Handling and Presentation

Solutions

Extra Questions

Revision Notes

Chapter 5: Prime Time

Solutions

Extra Questions

Revision Notes

Chapter 6: Perimeter and Area

Perimeter of rectangle = 2 × (length + breadth)

Perimeter of square = 4 × side

Perimeter of regular polygon = number of sides × side length

Area of rectangle = length × breadth

Area of square = side × side

Area of triangle = ½ × base × height

Same perimeter can give different areas; same area can give different perimeters (square-like shapes minimise perimeter for a given area)

Chapter 7: Fractions

Fraction = numerator/denominator; unit fraction has numerator 1

Proper fraction: numerator < denominator. Improper: numerator ≥ denominator. Mixed: whole + proper fraction

Equivalent fractions: multiply/divide numerator and denominator by the same number

Simplest form: divide by HCF of numerator and denominator

Comparing unlike fractions: convert to a common denominator (LCM), then compare numerators

Addition/subtraction (Brahmagupta's method): like fractions — add/subtract numerators directly; unlike fractions — use common denominator (LCM) first

Chapter 8: Playing with Constructions

Circle: set of all points at a fixed distance (radius) from a fixed centre

Rectangle/square construction: base (ruler) → 90° perpendiculars (protractor) → mark breadth → join points

Rectangle splits into n identical squares only if longer side = n × shorter side

A rectangle's diagonal splits each corner's 90° angle into two parts summing to 90°

45°/45° diagonal split ⇒ the shape must be a square

A rhombus can have all sides equal without being a square

Chapter 9: Symmetry

Line of symmetry: a line along which a figure folds into two matching mirror halves

Rotational symmetry: figure matches itself after rotating less than 360° about a fixed point (centre of rotation)

Angle of symmetry must be a whole-number factor of 360°; order of rotational symmetry = number of such angles

Regular polygon with n sides: n lines of symmetry, rotational order n, angle of symmetry = 360°/n

Circle: infinite lines of symmetry, infinite angles of symmetry

Chapter 10: The Other Side of Zero

Integers: positive numbers, negative numbers, and zero (addition/subtraction only at this level)

Additive inverse: number that sums with a given integer to give 0 (inverse of +4 is -4)

On the number line, values increase left to right; among negatives, closer to zero = greater (-2 > -5)

Subtracting a negative = adding the positive: $a - (-b) = a + b$

Token model: a “+” and a “-” token together form a zero pair, worth 0