

Class 9 Mathematics

Sample Practice Worksheet (Free Edition)

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CBSE Pattern | For Self Practice

Section A: Linear Equations (Solve)

- 1. Solve: $3x + 7 = 22$
- 2. Solve: $5x - 9 = 16$
- 3. Solve: $7x + 4 = 3x + 20$
- 4. Find the value of x if $2x/3 = 10$

Section B: Polynomials

- 1. Factorize: $x^2 - 16$
- 2. Factorize: $2x^2 + 7x + 3$
- 3. Verify the identity: $(a + b)^2 = a^2 + 2ab + b^2$
- 4. Find remainder when $x^3 - 1$ is divided by $(x - 1)$

Section C: Geometry (Triangles & Coordinate Geometry)

- 1. State and prove Pythagoras Theorem.
- 2. The angles of a triangle are in ratio 2:3:4. Find the angles.
- 3. Find distance between points (2,3) and (6,9).
- 4. Find midpoint of (-2,4) and (4,8).

Section D: Mensuration & Statistics

- 1. Find the volume of a cylinder of radius 7 cm and height 10 cm.
- 2. Find surface area of a cube of side 5 cm.
- 3. Find mean of: 5, 7, 9, 11, 13
- 4. A die is thrown once. Find probability of getting a number greater than 4.

Answer Key (For Self Checking)

- Linear Equations: $x = 5$, $x = 5$, $x = 4$, $x = 15$
- Polynomials: $(x - 4)(x + 4)$, $(2x + 1)(x + 3)$, Verified, Remainder = 0
- Distance = $\sqrt{[(6-2)^2 + (9-3)^2]} = \sqrt{52}$, Midpoint = (1,6)
- Volume = 1540 cm^3 , Surface Area = 150 cm^2 , Mean = 9, Probability = $\frac{2}{6} = \frac{1}{3}$