MOST IMPORTANT QUESTIONS
Class 10 – Mathematics (Standard)
CBSE Board Examination 2026

Chapter 1: Real Numbers

1. Prove that $\sqrt{5}$ is irrational and hence show that $2 - 3\sqrt{5}$ is irrational.

2. If HCF (306, 657) = 9, find LCM (306, 657).

3. Explain why $7\times11\times13 + 13$ and $7\times6\times5\times4\times3\times2\times1 + 5$ are composite.

4. Three bells toll at intervals of 9, 12, and 15 minutes. After how much time will they toll together again?

5. Find the largest number that divides 398, 436, 542 leaving remainders 7, 11, 15 respectively.

Chapter 2: Polynomials

1. Find zeroes of $\sqrt{3}x^2 + 10x + 7\sqrt{3}$ and verify relationships.

2. Find a quadratic polynomial whose zeroes are $3+\sqrt{2}$ and $3-\sqrt{2}$.

3. If one zero of $(k-1)x^2 + kx + 1$ is -3, find k.

4. If α, β are zeroes of $x^2 - 5x + 6$, find $\alpha^2 + \beta^2$.

5. HOTS: If $(\alpha+1)(\beta+1)=0$ for $f(x)=x^2-p(x+1)-c$, find c.

Chapter 3: Pair of Linear Equations

1. Solve: $11x + 15y + 23 = 0$ and $7x - 2y - 20 = 0$.

2. Find k for no solution: $3x + y = 1$, $(2k-1)x + (k-1)y = 2k+1$.

3. Boat problem – find speed of stream.

4. Find angles of triangle given angle relations.

5. HOTS: Solve given equations involving a and b.

Chapter 6: Triangles

1. State and prove Basic Proportionality Theorem.

2. In ΔABC, $DE \| BC$, find x.

3. Prove $CA^2 = CB \cdot CD$.

4. Prove diagonals of trapezium divide proportionally.

5. HOTS: Prove ΔABC is right angled.

Chapter 8: Trigonometry

1. If $\sin\theta = a/b$, find $\cos\theta$.

2. Evaluate given trigonometric expression.

3. Prove trigonometric identity.

4. Find A and B from $\sin(A-B)$, $\cos(A+B)$.

5. HOTS identity proof.

Chapter 10: Circles

1. Find radius using tangent length.

2. Prove angle between tangents theorem.

3. Prove $AB + CD = AD + BC$.

4. Find missing side in tangential quadrilateral.

5. HOTS tangent-chord theorem.

Chapter 13: Statistics

1. Find mean of grouped data.

2. Find missing frequency using mean.

3. Find median.

4. Find mode.

5. HOTS median-based frequency problem.

Chapter 14: Probability

1. Dice sum probability.

2. Card probability.

3. Ball probability.

4. Spinner probability.

5. HOTS disc probability.