

ANNUAL SYLLABUS
DIRECTORATE OF EDUCATION
CLASS : IX (2026-27)
SUBJECT : MATHEMATICS AT ADVANCED LEVEL

Chapter no. & name	Content
1. Sets	Introduction, Set, Representation of a Set, Finite and Infinite Sets, Empty or Null Set, Equality of Sets, Subset, Cardinality of a Set, Power Set, Universal Set, Venn Diagram, Set Operations, Complement of a Set, Application of Sets
2. Logarithms	Introduction to Logarithms, Understanding Logarithms as the Inverse of Exponent, Logarithms Properties, Logarithm to base 10, Logarithms Across Subjects, Solving Logarithmic Equations: The Search for 'x'
3. Relations and Functions	Introduction, Ordered Pairs, Cartesian Product of Sets, Relations, Functions, Some Functions and their Graphs
4. Coordinate Geometry	Introduction: The Language of Graphs, The Cartesian System, Let Us Explore Four Quadrants, Moving Points: The Magic of Reflections, Coordinates as Perpendicular Distances, The Concept of Slope (Gradient), Properties of Slope, Intercept, Different Forms of the Equation of a Line
5. Combinatorics	Introduction: The Mathematics of Possibilities, The Fundamental Principle of Counting (FPC), Factorials, Permutations: When Order Matters, Combinations: When Order Does NOT Matter, Combinatorics in the Modern World, Permutation vs Combination
6. Exploring some more Progressions	Introduction, Sum of the first n terms of a Geometric Progression, Infinite Geometric Progression, Method of Differences and Combinatorics
The above syllabus is to be completed for ANNUAL examination by 30th January, 2027.	

Note: As per CBSE guidelines,

- Mathematics Advanced will be optional, and meant for students who wish to study additional topics beyond the common syllabus.
- Students opting for the Advanced level will take an additional examination of 25 marks (1 hour) at a higher level, based on the above prescribed content.
- The marks obtained in the Advanced Examination shall not be added to the overall aggregate or total score of the student.

For more information, please refer to

https://cbseacademic.nic.in/web_material/CurriculumMain27/SecPart1/MathsAd_SecP1_2026-27.pdf