

KEC Advanced Courses – Conceptual Maths

#	Conceptual Maths (suggested for Class 8)	Course serves as preparation for Ganit Prabhutva and Pradnya exams for Class 8 students
1	Module 1	Number operations, divisibility, factors, decimals, ratio and proportion, unitary method, LCM and HCF
2	Module 2	Percentage, Profit and Loss, Discounts, Commissions, Average, Speed, Work and Time, Calendar, Clock analysis, Simple and compound interest
3	Module 3	Square and square roots, Cube and cube roots, Conjugate surds, Indices
4	Module 4	Series, Arithmetic Progressions, Crypt arithmetic, Magic squares, Diagrams for recreational mathematics
5	Module 5	Set theory and applications, Venn diagram, Introduction to counting and combinatorics, Simple problems on these concepts
6	Module 6	Basics of algebra: operations, expressions, equations, inequations and identities. Simultaneous linear equations. Polynomials and their expansion, division, factorization.
7	Module 7	Basic concepts of plane geometry: point, segment, ray, line, angles. Parallel Lines, polygons and their angles. Types of triangles and quadrilaterals. Area & perimeters of triangles, quadrilaterals, polygons and circles. Pythagoras theorem and pythagorean triplets. Concurrency and similarity of triangles. Concept of locus with simple examples of locus.
8	Module 8	Elements and properties of triangles and quadrilateral. Elements and properties of circle. Incircle, circumcircle, centroid, orthocenter. Area and perimeters of plane figures Introduction to shape and their measures, geometric constructions
9	Module 9	Presentation of solution for mathematical problems and proof Techniques for tackling MCQs
10	Module 10	Presentation of Data Mean, Median and Mode