

Mathematics Grade 8 Curriculum



Sessions 1 - 41

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Sessions 1 - 8

Rational Numbers

- Recap of Rational Numbers
- Represent Rational Numbers and Find Rational Numbers
- Recap of Operations on Rational Numbers
- **RDP Session(Revision, Doubt and Practice Session)** 
- Properties of Addition and Subtraction
- Properties of Multiplication and Division
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-1** 

Sessions 9 - 16

x^2 Exponents

- Recap of Exponents
- Simplify Expressions Involving Negative Powers
- **RDP Session(Revision, Doubt and Practice Session)** 
- Expand Decimal Numbers and Express Very Small Numbers in the Standard Form
- Compare, Order, and Perform Operations on Numbers in the Standard Form
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-2** 

Sessions 17 - 26

\sqrt{x} Squares and Square Roots

- Definition of Squares and Square Roots
- Finding Square Roots
- Identifying Perfect Squares
- **RDP Session(Revision, Doubt and Practice Session)** 
- Identify Patterns in Square Numbers and Their Roots
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-3** 

Sessions 27 - 32

$\sqrt[3]{x}$ Cubes and Cube Roots

- Definition of Cubes and Cube Roots
- Finding Cube Roots
- Identify Patterns in Perfect Cubes and Their Cube Roots
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-4** 

Sessions 33 - 41

Ratio and Proportion

- Relate Quantities in Direct and Inverse Proportion
- Identify the Type of Proportion and Solve Problems
- Direct and Inverse Proportion
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-5** 

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Sessions 42 - 97



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Sessions 42 - 55

Commercial Math

- Recap of Percentages
- Solve Contextual Problems on Profit and Loss
- Solve Contextual Problems on Discount and Tax
- **RDP Session(Revision, Doubt and Practice Session)** 
- Recap of Simple Interest
- Solve Contextual Problems on Compounding
- Relate Compound Interest, Principal, Amount, Time and Rate of Interest
- **Checkpoint Assessment-6** 

Sessions 56 - 68

One Variable Linear Equations

- Solve Linear Equations in One Variable
- Solve Equations by Reducing Them to Linear Form
- **RDP Session(Revision, Doubt and Practice Session)** 
- Solve Simple Word Problems on Linear Equations in One Variable
- Solve Advanced Word Problems on Linear Equations in One Variable
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-7** 

Sessions 69 - 81

Algebraic Expressions

- Recap of Introduction to Algebra
- Multiply a Monomial with a Polynomial
- Multiply Two Polynomials
- **RDP Session(Revision, Doubt and Practice Session)** 
- Understand Identities on Product of Binomials, Square of Binomials
- Apply Identities to Evaluate Numerical Expressions
- **Checkpoint Assessment-8** 

Sessions 82 - 88

Factorization

- Factorise Expressions by Taking Out Common Factors and Grouping of Terms
- Factorise Expressions Using Identities
- **RDP Session(Revision, Doubt and Practice Session)** 
- Factorise Expressions By Splitting the Middle Term
- Divide a Polynomial By a Monomial and a Linear Polynomial
- **RDP Session(Revision, Doubt and Practice Session)** 
- **Checkpoint Assessment-9** 

Sessions 89 - 97

Quadrilaterals

- Identify the Properties of Polygons and Generalise the Sum of Their Angles
- Solve Problems Based on the Properties of Parallelograms
- **RDP Session(Revision, Doubt and Practice Session)** 
- Solve Problems Based on the Properties of Rhombuses, Squares, and Rectangles
- **Checkpoint Assessment-10** 

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Sessions 98 - 144



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Sessions 98 - 102



Constructions

Construct Quadrilaterals with Given Sides, Angles, and Diagonals

RDP Session(Revision, Doubt and Practice Session) 

Checkpoint Assessment-11 

Sessions 103 - 114



Perimeter and Area

Recap of Basics of Perimeter and Area

Solve Problems on Area of Special Quadrilaterals

Solve Problems on Area of General Quadrilaterals and Polygons

RDP Session(Revision, Doubt and Practice Session) 

Solve Problems on Surface Area of Cubes, Cuboids, and Cylinders

Solve Problems on Volume of Cubes, Cuboids, and Cylinders

RDP Session(Revision, Doubt and Practice Session) 

Checkpoint Assessment-12 

Sessions 115 - 118



Solid Shapes

Identify the Top, Front, and Side Views of 3D Objects

Relate the Number of Vertices, Sides, and Faces of a Polyhedron

RDP Session(Revision, Doubt and Practice Session) 

Checkpoint Assessment-13 

Sessions 119 - 127



Data Handling

Recap of Data Handling

Organize Raw Data into Grouped Data

Represent and Interpret Data Using a Histogram

RDP Session(Revision, Doubt and Practice Session) 

Represent and Interpret Data Using a Pie Chart

Define Terms Related to Probability and Find the Probabilities of Simple Events

RDP Session(Revision, Doubt and Practice Session) 

Checkpoint Assessment-14 

Sessions 128



Final Assessment

Sessions 134 - 144



Vedic Maths

Multiplication Vertically and Crosswise(2D X 2D, 3D X 3D)

Multiplication by 9, 99, 999, and so on

Quick algebraic multiplication

Multiplication trick of numbers just above 100

Multiplication trick of numbers just below 100 and mixed

Finding Squares

Finding cubes of numbers just near 10 and 100

Magic Multiplication

Square root of perfect squares by observation method

Finding the day of any date in 500 years

Division by 11 using subtraction

Fractions

Fraction to Decimal conversion whose denominator ending with 9

Division by Crowing Glory Method



Mental Ability/ Logical Reasoning

Venn Diagram

Calendar

Statement And Conclusion

Cube

Direction Sense Test