

Topics	Primary 2 (Grade 2)
Logical Thinking	<ul style="list-style-type: none"> ➤ Balance Problem ➤ Basic Number Pattern & Sequence ➤ Basic Figure Pattern ➤ IQ Age Problem & Date Problem ➤ Guess on 2-digit numbers
Arithmetic	<ul style="list-style-type: none"> ➤ Smart Addition on 2-digit numbers with carrying ➤ Smart Subtraction on 1 to 2-digit numbers with carrying ➤ Multiplication on 2-digit numbers with carrying ➤ Balance on an equation
Number Theory	<ul style="list-style-type: none"> ➤ Introduction on Odd & Even ➤ Mathematical Leveling ➤ Advanced Fibonacci Series ➤ Match Equation ➤ Basic Arithmetic Pattern
Geometry	<ul style="list-style-type: none"> ➤ Counting on number of 2-D & 3-D Figures ➤ Counting on number of sides & interior angles ➤ Distinction on 2-D Figures ➤ Basic Figure Pattern
Combinatorics	<ul style="list-style-type: none"> ➤ Arranging numbers in orders ➤ Simple Distribution ➤ Counting on specific numbers ➤ Formation of a 3-digit number ➤ Simple Combination

Topics	Primary 3 (Grade 3)
Logical Thinking	<ul style="list-style-type: none"> • Periodic Problem • Advanced Figure Pattern • IQ Age Problem & Date Problem • Guess on 3-digit numbers • Basic Pigeonhole Principle
Arithmetic	<ul style="list-style-type: none"> • Gaussian Addition • Smart Addition on 3-digit numbers with carrying • Smart Subtraction on 3-digit numbers with carrying • Multiplication on 3-digit numbers
Number Theory	<ul style="list-style-type: none"> • Introduction on prime numbers • Sum, Difference & Multiples • Arithmetic Operation • Basic Arithmetic Pattern • Simple Divisibility
Geometry	<ul style="list-style-type: none"> • Counting on number of 2-D Figures • Counting on Vertices, Faces & Edges of 3-D Figures • Observations about 3-D Figures • Basic Concept about Area & Perimeter • Relationship between Line Segments, Angles & Figures
Combinatorics	<ul style="list-style-type: none"> • Basic Routing Problem • Advanced Distribution • Counting on specific numbers • Formation of a 3-digit number • Excess and Deficiency

Topics	Primary 4 (Grade 4)
Logical Thinking	<ul style="list-style-type: none"> • Periodic Problem • Advanced Figure Pattern • Chicken Rabbit Theorem • Guess on 3-digit numbers • Basic Pigeonhole Principle
Arithmetic	<ul style="list-style-type: none"> • Gaussian Addition • Smart Addition on 4-digit numbers with carrying • Smart Subtraction on 4-digit numbers with carrying • Multiplication on 3-digit numbers
Number Theory	<ul style="list-style-type: none"> • Introduction on prime numbers • Sum, Difference & Multiples • Arithmetic Operation • Relationship between L.C.M & H.C.F • Simple Divisibility
Geometry	<ul style="list-style-type: none"> • Counting on number of 2-D Figures • Counting on Vertices, Faces & Edges of 3-D Figures • Observations about 3-D Figures • Basic Concept about Area & Perimeter • Relationship between Line Segments, Angles & Figures
Combinatorics	<ul style="list-style-type: none"> • Basic Routing Problem • Advanced Distribution • Counting on specific numbers • Formation of a 3-digit number • Excess and Deficiency

Topics	Primary 5 (Grade 5)
Logical Thinking	<ul style="list-style-type: none"> • Chicken Rabbit Theorem • Speed, Distance & Time Problem • Guess on 4-digit numbers by given number properties • Advanced Pigeonhole Principle
Arithmetic	<ul style="list-style-type: none"> • Advanced Gaussian Addition • Smart Calculation on Decimals & Fractions • Sum of a series of square numbers • Method of Difference equations • Smart Addition on 5-digit numbers with carrying
Number Theory	<ul style="list-style-type: none"> • Advanced Divisibility • Number of positive factors • Sum of all positive factors • Unit digit of a series of n-digit numbers
Geometry	<ul style="list-style-type: none"> • Area & Perimeter of 2-D Figures • Ratio of Area of 2-D Figures • Volume & Surface Area of 3-D Figures • Counting on number of 2-D Figures • Relationship between Line Segments, Angles & Figures
Combinatorics	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Advanced Routing Problem • Combinations & Permutations • Principle of Inclusion and Exclusion • Excess and Deficiency

Topics	Primary 6 (Grade 6)
Logical Thinking	<ul style="list-style-type: none"> • Construction Problem • Speed, Distance & Time Problem • Guess on 4-digit numbers by given number properties • Advanced Pigeonhole Principle
Arithmetic	<ul style="list-style-type: none"> • Advanced Gaussian Addition • Smart Calculation on Fractions • Sum of a series of square numbers • Sum of a series of cubic numbers • Method of Difference equations • Sum of Geometric Sequence
Number Theory	<ul style="list-style-type: none"> • Advanced Divisibility • Number of positive factors • Sum of all positive factors • Unit digit of a series of n-digit numbers
Geometry	<ul style="list-style-type: none"> • Area & Perimeter of 2-D Figures • Ratio of Area of 2-D Figures • Volume & Surface Area of 3-D Figures • Area of circle & Circumstance • Relationship between Line Segments, Angles & Figures
Combinatorics	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Advanced Routing Problem • Combinations & Permutations • Principle of Inclusion and Exclusion • Simple Probability

Topics	Secondary 1 (Grade 7)
Logical Thinking	<ul style="list-style-type: none"> • Advanced Periodic Problems • Speed, Distance & Time Problem • Advanced Pigeonhole Principle • Guess on 4-digit numbers • Relationship between mean, median & sum
Arithmetic	<ul style="list-style-type: none"> • Operation on directed numbers • Algebraic expression • Linear Equations • Introduction on Absolute Value • Simplification on surd form • Euclidean Algorithm
Number Theory	<ul style="list-style-type: none"> • Advanced problems on Prime Numbers • Counting on possible solution(s) on Indefinite equations • Introduction on repeating surd forms • Sum of all Digits • Relationship between L.C.M & H.C.F
Geometry	<ul style="list-style-type: none"> • Usage of Pythagorean theorem • Characteristics of Congruent Triangles & Similar Triangles • Area of circle & Circumstance • Relationship between Line Segments, Angles & Figures • Knowledge on Rectangular Coordinate System • Volume & Surface Area of 3-D Figures
Combinatorics	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Advanced Routing Problem • Combinations & Permutations • Principle of Inclusion and Exclusion • Simple Probability • Triangle Inequality

Topics	Secondary 2 (Grade 8)
Logical Thinking	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Guess on 4-digit numbers • Relationship between mean, median & sum • Advanced Distributions • Advanced Periodic Problems
Arithmetic	<ul style="list-style-type: none"> • Algebraic expression • Factorization • Introduction on Absolute Value • Simplification on surd form • Euclidean Algorithm • Introduction on Inequalities
Number Theory	<ul style="list-style-type: none"> • Periodic remainder problems • Counting on possible solution(s) on Indefinite equations • Introduction on repeating surd forms • Extreme values of a polynomial • Factor Theorem
Geometry	<ul style="list-style-type: none"> • Advanced usage of Pythagorean theorem • Characteristics of Congruent Triangles & Similar Triangles • Triangle Inequality • Relationship between Line Segments, Angles & Figures • Knowledge on Rectangular Coordinate System • Concepts about angle bisectors
Combinatorics	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Advanced Routing Problem • Combinations & Permutations • Principle of Inclusion and Exclusion • Simple Probability • Counting on Like & Unlike Terms of a polynomial

Topics	Secondary 3 (Grade 9)
Logical Thinking	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Guess on 4-digit numbers • Relationship between mean, median & sum • Advanced Distributions • Advanced Periodic Problems
Arithmetic	<ul style="list-style-type: none"> • Sum & Product of roots of a quadratic equation • Algebraic expression • Introduction on Absolute Value • Simplification on surd form • Euclidean Algorithm • Introduction on Inequalities
Number Theory	<ul style="list-style-type: none"> • Periodic remainder problems • Counting on possible solution(s) on Indefinite equations • Introduction on repeating surd forms • Extreme values of a polynomial • Modular Arithmetic
Geometry	<ul style="list-style-type: none"> • Advanced usage of Pythagorean theorem • Menelaus' Theorem • Relationship between Line Segments, Angles & Figures • Advanced knowledge on Rectangular Coordinate System • Trigonometry
Combinatorics	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Combinations & Permutations • Principle of Inclusion and Exclusion • Advanced Probability • Counting on Like & Unlike Terms of a polynomial

Topics	Senior Secondary (Grade 10-12)
Logical Thinking	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Guess on 5-digit numbers • Relationship between mean, median & sum • Advanced Distributions • Advanced Periodic Problems
Arithmetic	<ul style="list-style-type: none"> • Sum & Product of roots of a quadratic equation • Algebraic expression • Introduction on Absolute Value • Simplification on surd form • Euclidean Algorithm • Introduction on Inequalities
Number Theory	<ul style="list-style-type: none"> • Periodic remainder problems • Counting on possible solution(s) on Indefinite equations • Introduction on repeating surd forms • Extreme values of a polynomial • Modular Arithmetic • Introduction on complex numbers
Geometry	<ul style="list-style-type: none"> • Advanced knowledge on Rectangular Coordinate System • Menelaus' Theorem • Relationship between Line Segments, Angles & Figures • Circumcentre, Incentre, Centroid & Orthocentre • Trigonometry
Combinatorics	<ul style="list-style-type: none"> • Advanced Pigeonhole Principle • Combinations & Permutations • Principle of Inclusion and Exclusion • Advanced Probability • Counting on Like & Unlike Terms of a polynomial