BrainBox
Digital Minds Olympiad
AI & IT Olympiad (For Class I to X)

Mathematics Olympiad

CLASS–I

Number Sense
- Numbers up to 100
- Number Names & Numerals
- Comparing & Ordering Numbers
- Place Value

Operations
- Addition & Subtraction
- Number Bonds
- Mental Mathematics

Measurement
- Money
- Time
- Length, Weight & Capacity (Basic)

Geometry
- 2D Shapes
- Spatial Understanding
- Patterns

Data & Reasoning
- Picture Graphs (Introduction)
- Logical Reasoning
- Puzzle-Based Mathematics
- Everyday Mathematics

CLASS–II

Number Sense
- Numbers up to 1000
- Place Value
- Comparing & Ordering

Operations
- Addition
- Subtraction
- Multiplication (Basic)
- Equal Sharing (Introduction to Division)
- Mental Mathematics

Measurement
- Money
- Time
- Length, Mass & Capacity

Geometry
- 2D & 3D Shapes
- Symmetry
- Patterns

Data & Reasoning
- Picture Graphs
- Simple Data Interpretation
- Logical Reasoning
- Daily Life Mathematics

CLASS–III

Number Sense
- Numbers up to 10,000
- Place Value
- Estimation

Operations
- Addition
- Subtraction
- Multiplication
- Division

Fractions
- Basic Fractions

Geometry
- Lines
- Shapes
- Symmetry
- Perimeter (Introduction)

Measurement
- Money
- Time
- Metric Units

Data Handling
- Bar Graphs
- Data Interpretation

Higher Order Thinking
- Mathematical Reasoning
- Puzzle-Based Questions
- Application-Based Problems

CLASS–IV

Number System
- Large Numbers
- Estimation & Rounding

Operations
- Four Basic Operations

Factors & Multiples

Fractions & Decimals (Introduction)

Geometry
- Angles
- Lines
- Symmetry
- Perimeter & Area (Basic)

Measurement
- Metric Measures

Data Handling
- Tables
- Bar Graphs

Higher Order Thinking
- Multi-Step Word Problems
- Logical Reasoning
- Real-Life Mathematics

CLASS–V

Number System
- Large Numbers
- Roman Numerals

Operations
- Whole Numbers
- Factors & Multiples

Fractions
- Operations on Fractions

Decimals

Percentage (Introduction)

Geometry
- Angles
- Perimeter
- Area
- Volume (Concept)

Data Handling
- Graphs
- Data Interpretation

Higher Order Thinking
- Mathematical Modelling
- Logical Reasoning
- Real-Life Applications

CLASS–VI

Number System
- Whole Numbers
- Integers
- Fractions
- Decimals

Arithmetic
- Ratio & Proportion
- Basic Algebra
- Playing with Numbers

Geometry
- Basic Geometrical Ideas
- Angles
- Elementary Shapes

Mensuration
- Perimeter
- Area

Data Handling
- Tables
- Bar Graphs
- Pie Charts (Introduction)

Higher Order Thinking
- Mathematical Reasoning
- Pattern Recognition
- Case-Based Problems

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Mathematics Olympiad

CLASS–VII

Number System
- Integers
- Rational Numbers

Algebra
- Algebraic Expressions
- Simple Equations

Arithmetic
- Comparing Quantities
- Percentage
- Profit & Loss
- Simple Interest

Geometry
- Lines & Angles
- Triangles

Mensuration
- Perimeter & Area

Exponents & Powers

Data Handling
- Mean
- Bar Graphs
- Probability (Basic)

Higher Order Thinking
- Mathematical Investigation
- Logical Reasoning
- Application-Based Problems

CLASS–VIII

Number System
- Rational Numbers

Algebra
- Linear Equations
- Algebraic Expressions
- Identities
- Factorisation

Arithmetic
- Comparing Quantities
- Direct & Inverse Proportion

Geometry
- Quadrilaterals

Mensuration

Exponents & Powers

Squares & Square Roots
- Cube & Cube Roots

Data Handling
- Graphs
- Probability

Higher Order Thinking
- Mathematical Modelling
- Data Interpretation
- Logical & Analytical Reasoning

CLASS–IX

Number System

Algebra
- Polynomials
- Linear Equations in Two Variables

Coordinate Geometry

Geometry
- Lines & Angles
- Triangles
- Quadrilaterals
- Circles

Mensuration
- Areas
- Surface Areas
- Volumes
- Heron's Formula

Statistics

Probability (Introduction)

Higher Order Thinking
- Mathematical Modelling
- Case-Based Problems
- Data Interpretation
- Logical Reasoning

CLASS–X

Real Numbers

Algebra
- Polynomials
- Pair of Linear Equations
- Quadratic Equations
- Arithmetic Progressions

Coordinate Geometry

Geometry
- Triangles
- Circles

Trigonometry
- Trigonometric Ratios
- Identities
- Heights & Distances

Mensuration
- Surface Area & Volume
- Areas Related to Circles

Statistics

Probability

Higher Order Thinking
- Case-Based Questions
- Mathematical Modelling
- Multi-Concept Problems
- Data Analysis & Interpretation

BrainBox Mathematics Olympiad Assessment Pattern

Component	Classes I–V	Classes VI–VIII	Classes IX–X
Number Sense & Arithmetic	40%	35%	30%
Algebra & Geometry	20%	25%	30%
Mensuration & Measurement	10%	10%	10%
Data Handling & Probability	10%	10%	10%
Mathematical Reasoning & Logical Thinking	10%	10%	10%
Application-Based & Case-Based Mathematics	10%	10%	10%

The BrainBox Mathematics Olympiad focuses on:

- Conceptual Understanding
- Competency-Based Learning
- Application-Based Mathematics
- Logical & Analytical Reasoning
- Mathematical Modelling
- Real-Life Problem Solving
- Visual & Spatial Reasoning
- Data Interpretation
- Multi-Step Problem Solving
- Higher Order Thinking Skills (HOTS)

Classes I–V

Total Questions: 40 | Maximum Marks: 40 | Duration: 60 Minutes

Question Type: Multiple Choice Questions (MCQs)

Section	Assessment Area	Questions	Marks	Weightage
A	Number Sense & Arithmetic	16	16	40%
B	Geometry & Measurement	8	8	20%
C	Data Handling & Patterns	4	4	10%
D	Mathematical Reasoning & Logical Thinking	6	6	15%
E	Application-Based Mathematics (Real-Life Problems)	6	6	15%
Total		40	40	100%

Classes VI–VIII

Total Questions: 50 | Maximum Marks: 50 | Duration: 75 Minutes

Question Type: Multiple Choice Questions (MCQs)

Section	Assessment Area	Questions	Marks	Weightage
A	Number System, Arithmetic & Algebra	18	18	36%
B	Geometry & Mensuration	10	10	20%
C	Data Handling & Probability	6	6	12%
D	Mathematical Reasoning & Logical Thinking	8	8	16%
E	Application-Based & Case-Based Mathematics	8	8	16%
Total		50	50	100%

Classes IX–X

Total Questions: 60 | Maximum Marks: 60 | Duration: 90 Minutes

Question Type: Multiple Choice Questions (MCQs)

Section	Assessment Area	Questions	Marks	Weightage
A	Number System, Algebra & Coordinate Geometry	22	22	37%
B	Geometry, Mensuration & Trigonometry	16	16	27%
C	Statistics & Probability	6	6	10%
D	Mathematical Reasoning & Analytical Thinking	8	8	13%
E	Application-Based, Case-Based & Mathematical Modelling	8	8	13%
Total		60	60	100%

Question Pattern

Classes I–II

Picture-Based Mathematics.
Counting & Number Sense.
Simple Word Problems.
Pattern Recognition.
Shape Identification.
Logical Thinking.
Everyday Mathematics.

Classes III–V

Competency-Based MCQs.
Multi-Step Word Problems.
Mental Mathematics.
Data Interpretation.
Visual Reasoning.
Logical & Analytical Thinking.
Real-Life Mathematical Applications.

Classes VI–VIII

Competency-Based MCQs.
Case-Based Questions.
Mathematical Reasoning.
Algebraic Thinking.
Geometry Applications.
Data Interpretation.
Logical Puzzles.
Real-Life Problem Solving.

Classes IX–X

Advanced Competency-Based MCQs.
Case Study Questions.
Mathematical Modelling.
Multi-Concept Problems.
Graph and Data Interpretation.
Analytical & Logical Reasoning.
Real-Life Applications.
Higher-Order Thinking Skills (HOTS).