



# MathX

BY



## GRADE 7 CURRICULUM



Aligned with CBSE  
Curriculum

Grade 7 curriculum



Aligned with ICSE  
Curriculum



Designed with International learning  
Standards (IB & IGCSE) in mind

MathX  
by



# MathX Program – Grade 7

From Clear Concepts to Confident Problem Solving

At Nool and Numbers Academy, we guide students to go beyond formulas and truly understand the “why” behind every concept.

Our **MathX – Grade 7** program builds strong analytical and reasoning skills through interactive lessons, real-world connections, and competitive challenges.

By integrating Academic Math, Real-Life Math, Logical Math, and Competitive Math, we help students transition smoothly toward higher-level mathematics and Olympiad readiness.

## 1. Academic Math – Strengthening Concepts for Higher Grades

In **Grade 7**, students explore advanced arithmetic, deeper algebra, and geometry with precision and understanding.

Our teaching focuses on step-by-step reasoning, visualization, and applying math to solve multi-step problems.

## Syllabus Overview – Grade 7

**Numbers and Numeration:** Integers: addition, subtraction, multiplication, division-  
Rational numbers: fractions, decimals, positive and negative numbers-Factors and multiples, prime, composite, co-prime numbers-HCF and LCM (advanced problems),  
Approximation and estimation

**Algebra:** Expressions, equations, and simple identities-Simplifying algebraic expressions, solving linear equations in one variable-Word problems based on equations

**Ratio, Proportion, and Percentage:** Ratio and proportion-Percentage problems: discount, profit & loss, simple interest, Conversion between fractions, decimals, and percentages

**Geometry:** Lines and angles: types of angles, angle sum property-Triangles: types, properties, congruence-Quadrilaterals and polygons-Circles: radius, diameter, circumference (introduction)-Symmetry, reflection, rotation, and position

**Mensuration:** Perimeter and area of square, rectangle, triangle, parallelogram, trapezium, Surface area and volume of cube, cuboid, cylinder, cone, sphere (basic formulas), Units of measurement: length, mass, capacity, time

**Integers and Rational Numbers:** Operations on integers and rational numbers-Word problems and real-life applications

**Data Handling:** Organizing data using tables, pictographs, bar graphs-Mean, median, mode, and simple probability

*Outcome: Builds mastery in algebra, geometry, and data concepts while improving logical reasoning and problem-solving accuracy.*

## 2. Real-Life Math – Math That Matters



In Real-Life Math, students connect classroom learning with real-world use cases.

They calculate discounts, interest, and speed-distance-time, analyze charts, and apply geometry in design and measurement projects.

This helps them realize how math plays a vital role in daily decision-making and planning.

*Outcome: Encourages curiosity and practical application — showing that math is not just for exams, but for life.*

### 3. Logical Math - Strengthening Reasoning Skills

MathX for Grade 7 pushes critical thinking to the next level with expert-designed reasoning challenges. Students tackle topics like statement and conclusion, data and direction sense, puzzle arrangements, number and letter coding, series completion, and mental calculation techniques.



This program nurtures abstract reasoning, decision-making, and analytical precision — key skills for academic excellence and real-world applications.

**Outcome:** Sharpens reasoning, focus, and creative thinking — essential for Olympiads and analytical problem-solving.

### 4. Competitive Math - Ready for Challenges



Our Competitive Math component helps Grade 7 learners apply their knowledge to Olympiad-style and concept-based problems.

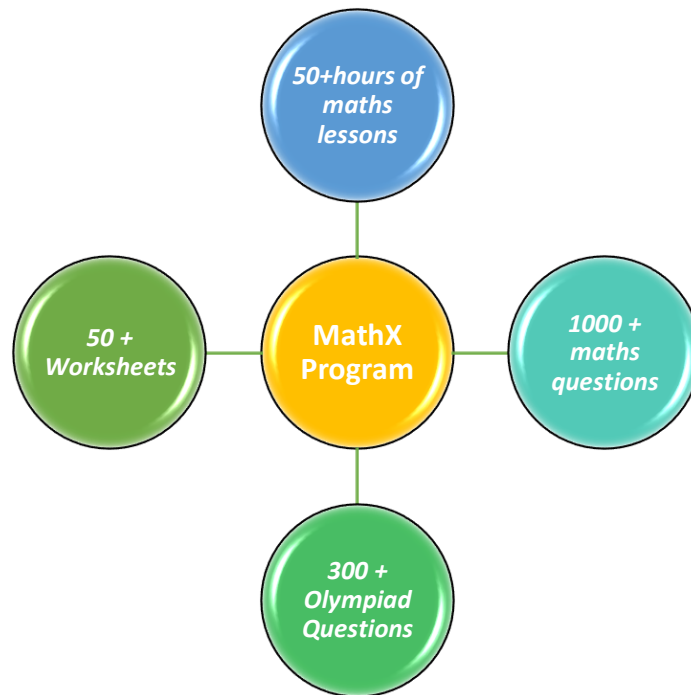
Students tackle questions involving number theory, geometry puzzles, algebraic reasoning, and logical deduction.

Regular challenge rounds, speed drills, and timed worksheets train them for exams like SOF IMO, NSTSE, and future competitive tests.

**Outcome:** Builds exam confidence, faster thinking, and early preparation for NTSE and JEE-level reasoning.

### Why Choose MathX - Grade 7?

- ✓ Strengthens core understanding in algebra & geometry
- ✓ Enhances problem-solving and logical reasoning
- ✓ Connects theory with practical, real-life examples
- ✓ Prepares students for Olympiads & higher competitive levels
- ✓ Builds confidence, speed, and strategic thinking



## How Our MathX Program Work?



1:1 Personal Attention



Interactive live sessions  
- not recorded



Logical thinking & Problem Solving focus



Expert Teacher for every subject



Affordable & Flexible timings

## Our Teaching Methodology

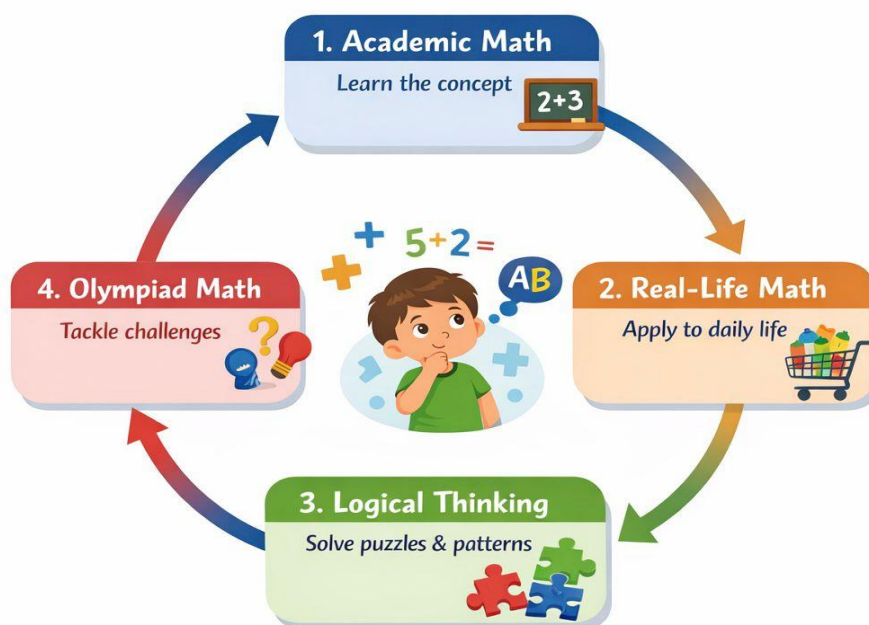
MathX follows an Integrated Learning Model where every concept is taught in four connected layers:

- ✓ Academic Understanding - Concept clarity aligned with school curriculum
- ✓ Real-Life Application - Connecting math to everyday experiences
- ✓ Logical Reasoning - Developing thinking and observation skills
- ✓ Olympiad Exposure - Encouraging advanced and creative problem-solving

Each topic is completed only after the child demonstrates understanding across all four layers.

## How We Teach MathX

*One Concept – Four Ways of Learning!*



**Understand • Apply • Think • Achieve!**

### **In a Simple Way:**

"We always teach Academic Math first.

Once the child understands the concept clearly, we immediately apply the same topic in three ways:

- ✓ Real-life situations
- ✓ Logical thinking activities
- ✓ Olympiad-style questions

For example, when we teach addition:

- ✓ First, we teach how to add numbers properly
- ✓ Then we show how addition is used in daily life (shopping, toys, money)
- ✓ Then we give thinking-based and Olympiad-style questions on the same addition

This way, children don't just learn 'how to do', they understand why and where to use it."

***At Nool and Numbers Academy: Where Learners Build Logic, Confidence, and a Love for Math...!***