

National Mathematics Talent Contest

(NMTC) 2025

Are you a budding math enthusiast with a love for puzzles, logic, and numbers? Then the **National Mathematics Talent Contest (NMTC) 2025** is your chance to shine!

The **National Mathematics Talent Contest (NMTC)** is an annual mathematics competition conducted by AMTI (**The Association of Mathematics Teachers of India**) to promote problem-solving and analytical thinking among students from class 5 to 12. NMTC has been instrumental in identifying future Olympiad champions and nurturing mathematical brilliance at a young age.

NMTC is conducted for different levels based on the class of the student:

Level Name	Classes Covered
Primary (PRMO) (Gauss Contest)	Class 5 & 6
Sub-Junior (Sub-Jr) (Kaprekar Contest)	Class 7 & 8
Junior (Jr) (Bhaskara Contest)	Class 9 & 10
Inter (Ramanujan Contest)	Class 11 & 12

NMTC Exam Pattern NMTC is conducted in **two stages**:

Stage 1: Preliminary Test

- **Type:** Written exam (Pen & Paper)
- **Duration:** 2 hours
- **Marking:** No negative marking

Stage 2: Final Test (for selected students)

- **Type:** Descriptive test
- **Focus:** Conceptual and analytical problem-solving
- **Selection:** Based on top performance in prelims

Date of Preliminary Test: 23-08-2025(Saturday)

Timings: 10am to 12noon

Recommended topics for NMTC exam

PRIMARY:(Gauss Contest - V and VI Standards)

- ✓ **ARITHMETIC:** Fractions, percentages, profit and loss, tests of divisibility, LCM, HCF, Ratio and proportion, Calendar
- ✓ **MENSURATION:** Triangles, Quadrilaterals, Circles.
- ✓ **ALGEBRA:** Algebra as literal Arithmetic, Addition, subtraction, multiplication and division of simple Arithmetic expressions.

- ✓ GEOMETRY: Straight lines, parallel lines, Angle properties of triangles, quadrilaterals and polygons.

SUB JUNIOR:(Kaprekar Contest - VII and VIII Standards)

- ✓ All the topics for primary and,
- ✓ ARITHMETIC: Square roots and cube roots, Allegation, average, time and work, time and distance, Races, Games of skill,
- ✓ Travelling around a circle.
- ✓ MENSURATION: Three Dimensional: cubes, cuboids, sphere, cone, cylinder, pyramids.
- ✓ ALGEBRA: Algebraic equations of degree 1 and degree 2. Algebraic identities, factorization of algebraic expressions, laws of indices, basics of surds.
- ✓ GEOMETRY: Triangle inequalities, parallelograms, trapezoids, Pythagoras theorem.
- ✓ NUMBER THEORY: Prime and composite numbers, divisibility.
- ✓ [Note: Apart from these, the children shall practise to solve logical questions in basic mathematics].

JUNIOR:(Bhaskara Contest - IX and X Standards)

- ✓ All the topics for Primary, Sub junior and the following:
- ✓ ALGEBRA: Quadratic and Higher degree Algebraic equations, Remainder theorem, Logarithms, Sequences and series, Scales of
- ✓ notations, Mathematical Induction, Basic inequalities.
- ✓ GEOMETRY: Circle theorems, Chords, Arcs, Angles in segments, Cyclic Quadrilaterals, Tangents, Alternate Segment theorem, intersecting chord theorem, Apollonius theorem, and Stewart's theorem.
- ✓ NUMBER THEORY: Modular arithmetic, Greatest Integer function, least integer functions.
- ✓ COMBINATORICS: Fundamental principle of counting, Basics of permutations and combinations, Principle of inclusion and exclusion, Pigeonhole principle.

INTER:(Ramanujan Contest - XI and XII Standards)

- ✓ All the topics for Primary, Sub Junior, Junior and the following:
- ✓ ALGEBRA: Polynomials, inequalities, (C-S inequality), Functional equations.
- ✓ GEOMETRY: Trigonometric, vector, Coordinate Geometric and Complex number methods may be used.
- ✓ NUMBER THEORY: Fermat and Wilson theorem, Diophantine equations.
- ✓ COMBINATORICS: Counting techniques, Recurrence relations.