



By Mathico School of Mathematics  
<https://summer.mathi.co/>



## MO - Honors + AMC - Advanced Topics (Grades 4 and up)

If your child is into math and science, this course will equip him with everything to have a sound first step towards Math and Science Olympiads. The curriculum aims at uncovering the fundamentals of how math works and awakening deep love for math in kids. They will be exposed to high-level concepts, which are not taught in their regular math classes.

This Advanced Math course is also a great guide for the preparation for National and International competitions and support for the path to High School Honors math and other related subjects.

### COURSE TOPICS

Digits & Divisibility, Patterns & Variables, LOGIC, Language of Logic, Ratios, Percentages, and Rates, Probability, Arithmetic Logic and Magic, Balancing Scales, Sequences, Truth tellers and liars, Operator searches, 2D Geometry, Going 3D, Pythagoras' Geometry, Diving into Math Kangaroo Topics.

## AMC-8 (Grade level: Advanced 7,8)

This course is the extensive preparation for American Mathematics Competitions (AMC) - the first of a series of competitions in secondary school mathematics that determine the United States team for the International Mathematical Olympiad.

### COURSE TOPICS

Algebra-Equations, Algebra-Sequences and Series, Non-numeric Geometric Ratios, Algebra-Data, Data Sets, Geometry-Measures, Angle hunting, Right triangles, Geometry-Similarity, Scaling, Coordinate Geometry, Geometry-Composites, Working in 3D. Combinatorics-Counting, Symmetry, Venn and Branch Diagrams, Combinatorics-Probability, Outcomes, Symmetry and Conditional, Number Theory-Diagnostic, Efficiency Number Theory-Factorization, Cryptarithmic.