

TOPICS TO STUDY FOR MATHCON

- ❖ The following topics provide a framework for MathCON.
- ❖ These topics are not curriculum.
- ❖ It is recommended that students review previous grade topics.
- ❖ Any grade level's topics are related to the previous grade level and promote continuous improvement over the years.
- ❖ A MathCON test consists of multiple-choice questions covering the following topics:
Algebra, Geometry, Number Theory, and Combinatorics
- ❖ There could be questions from different topics that aren't listed below at MathCON.

TOPICS TO STUDY FOR MATHCON

7TH GRADE MATH

- ❖ Ratios and proportional relationships and their graphs
- ❖ Rate, unit rate, ratios of fractions
- ❖ Constant of proportionality
- ❖ Integers
- ❖ Absolute value of rational numbers
- ❖ Linear expressions
- ❖ Percentage, percent of change
- ❖ Rotations, Reflections, Translations
- ❖ Expressions, Variables
- ❖ Simple interest, tax, sales tax, markups and discounts,
- ❖ Gratuities and commissions, fees, percent increase and decrease, percent error.
- ❖ Word problems leading to equations and inequalities
- ❖ Scale drawings of geometric figures
- ❖ Slicing three dimensional figures
- ❖ Area and circumference of a circle
- ❖ Supplementary, complementary, vertical, and adjacent angles
- ❖ Scale drawings
- ❖ Composite figures
- ❖ Area, volume and surface area of three-dimensional objects
- ❖ Random sampling, variation
- ❖ Probability
- ❖ Frequencies in data, prediction
- ❖ Sampling and statistics
- ❖ Compare two populations