# MML Categories 2022-2023 ALL ROUNDS ARE <u>NON-CALCULATOR</u>.

#### **Contest #1 October 6, 2022**

- 1) Geometry: Volumes and Surfaces
- 2) Plane Geometry: Pythagorean relations in rectilinear figures
- 3) Algebra 1: Linear Equations
- 4) Algebra 1: Fractions and Mixed Numbers
- 5) Algebra 2: Inequalities and Absolute Value
- 6) Algebra 1: Evaluations
- 7) Team Questions

### Contest #2 November 3, 2022

- 1) Algebra 2: Complex Numbers (no Trig)
- 2) Algebra 1: Anything
- 3) Plane Geometry: Area of rectilinear figures
- 4) Algebra 1: Factoring and its applications
- 5) Trigonometry: Functions of 30, 45, 60 & 90 and their integral multiples
- 6) Plane Geometry: Angles about a point, triangles, and parallels
- 7) Team Questions

#### Contest #3 December 1, 2022

- 1) Trigonometry: Right angle problems, Laws of Sines and Cosines
- 2) Elementary Number Theory/Arithmetic
- 3) Coordinate Geometry of Lines and Circles
- 4) Algebra 2: Log and Exponential Functions
- 5) Algebra 1: Ratio, Proportion or Variation
- 6) Plane Geometry: Polygons (no areas)
- 7) Team Questions

## Contest #4 January 12, 2023

- 1) Analytic Geometry: Anything
- 2) Algebra 1: Factoring and/or equations involving factoring
- 3) Trigonometry: Equations having a reasonable number of solutions
- 4) Algebra 2: Quadratic Equations / Quadratic Theory
- 5) Geometry: Similarity of Polygons
- 6) Algebra 1: Anything
- 7) Team Questions

## Contest #5 February 2, 2023

- 1) Algebra 2: Algebraic Functions
- 2) Elementary Number Theory/Arithmetic
- 3) Trigonometry: Identities and/or Inverse Functions
- 4) Algebra 1: Word Problems
- 5) Plane Geometry: Circles
- 6) Algebra 2: Sequences and Series
- 7) Team Questions

## **Contest #6 March 2, 2023**

- 1) Algebra 2: Simultaneous Equations and Determinants
- 2) Algebra 1: Exponents and Radicals
- 3) TRIGONOMETRY: Open
- 4) Algebra 1: Anything
- 5) Plane Geometry: Anything
- 6) Probability and Binomial Theorem
- 7) Team Questions