



2022 OWLympiad Team Exam Syllabus

Teams should be able to use and apply the following mathematical concepts:

1. Algebra I & II (40-45%)

- Simplifying Radicals
- Distance and Slope of a Line
- Graphing on the Coordinate Axes
- Probability, Combinations, and Permutations
- Perpendicular and Parallel Lines
- Factoring and the Quadratic Equation
- Inequalities and Absolute Values
- Matrices
- Inverse and Composite Functions

2. Geometry (15-20%)

- Similarities and Congruencies
- Perimeter, Area, and Volume
- Geometric Theorems and Proofs

3. Trigonometry/Pre-calculus (15%-20%)

- Trigonometric Identities
- Natural Logarithm and Logarithmic Identities

4. Calculus (20%-25%)

- Velocity and Acceleration
- Critical points, Increasing and Decreasing Functions
- Limits, Series, and Sums
- Derivatives
- Anti-derivatives
- Area Under a Curve