

Geometry for Math Competitions Syllabus

Instructor: Sargam Mondal

Weekly Classes on Saturdays, 7:00 to 8:00 P.M EST

Course Description

This course is aimed towards students aiming to solve the last 15 problems on the AMC 10 and the first 5 problems on the AIME. It assumes a strong foundation in Common Core Algebra I and a basic foundation with Common Core Geometry. Although this course is mainly aimed towards students preparing for math competitions, very motivated students who are looking for a challenge beyond their standard curriculum are also welcome. Typically, a class will consist of a handout and a set of homework problems.

Meeting Agenda

Meeting 1: Applications of the Pythagorean Theorem

Meeting 2: Angle Bisector Theorem

Meeting 3: 30-60-90 Triangles

Meeting 4: Area

Meeting 5: Mass Points

Meeting 6: Circles

Meeting 7: Power of Point

Meeting 8: Cyclic Quadrilaterals

Meeting 9: Polygons

Meeting 10: Coordinate Geometry

Meeting 11: 3-D Geometry

Meeting 12: Geometric Probability

Meeting 13: Incircles and Circumcircles

Meeting 14: Basics of Trigonometry

Meeting 15: Final Quiz