

Prealgebra Review Syllabus

Instructor: Satvik Dasariraju

Weekly Classes on Sundays, 6:30-7:30 PM EST

Course Description

In this course, we'll embark on a review of prealgebra through working through exercises and problems in the AoPS Prealgebra Textbook. This course will include conceptual background, but the main focus will be learning competition strategies through experiencing the problem solving process live. Each class will be dedicated to student-selected problems from a section/chapter of the textbook, and the instructor will guide students through the plan of attack and execution for each problem. Students will have the opportunity to choose specific topics or challenge problems, which will determine the instructor's lesson plan. Prealgebra Review will be a fantastic course for students familiar with the concepts of prealgebra who are looking to improve speed and accuracy in middle school math competitions such as AMC 8 and MathCounts.

Meeting Agenda

4/25 Meeting 1: Problems in Chapters 1-2

- Introduction to Course
- Properties of Arithmetic
- Exponents

[students send instructor problems they want to cover before meetings 2-10]

5/2 Meeting 2: Problems in Chapter 3

- Number Theory

5/9 Meeting 3: Problems in Chapter 5

- Equations
- Inequalities

5/16 Meeting 4: Problems in Chapters 4 & 6

- Fractions
- Decimals

5/23 Meeting 5: Problems in Chapters 7-8

- Rations, Conversions, and Rates
- Percents

5/30 Meeting 6: Problems in Chapter 9

- Square Roots
- Further Exploration of Exponents

6/6 Meeting 7: Problems in Chapters 10-11

- Angles
- Easy Problems in Perimeter & Area

6/13 Meeting 8: Problems in Chapters 11-12

- Challenge Problems in Perimeter & Area
- Right Triangles
- Quadrilaterals

6/20 Meeting 9: Problems in Chapter 13

- Data and Statistics (probably the easiest topic)

6/27 Meeting 10: Problems in Chapter 14

- Combinatorics
 - Counting
 - Probability