



COMPETITION MATH

AN ONLINE COURSE FOR
MIDDLE SCHOOL COACHES

MATHCOUNTS[®] AoPS next thought

COURSE DESCRIPTION

Competition Math is a 10-week 30-hour course that provides new and experienced math coaches with fundamental math content knowledge, problem-solving strategies and coaching best practices that are essential when working with a middle school or high school math team.

Through participation in this course, participants will expand their mathematics content knowledge, strengthen their problem-solving skills and acquire new instruction techniques for developing problem-solving skills in their students. The math content in this course is designed around the National Council of Teachers of Mathematics Standards for Grades 6-8, but will include some problems aligning more closely with the Standards for Grades 9-12, especially related to algebra, geometry and number theory.

What makes Competition Math different from most classroom math?

The primary distinction is often that competition math focuses on problem solving; competition math puts the math skills learned in the typical math classroom to work. In an ideal world, classroom math will more closely resemble competition math.

Methodology

Self-Paced, Online Instruction & Participation **approx. 17 hours**

Each week, participants will receive 4 Challenge Problems. At the end of the week, participants will view videos showing possible solutions to these Challenge Problems. These videos are created by a panel of instructors from Art of Problem Solving and MATHCOUNTS.

Individual Practice **approx. 7 hours**

Each week, participants will receive a 10-Problem Practice Set to complete.

Reading **approx. 2 hours**

Detailed written solutions with complete explanations of different problem-solving strategies will be distributed each week for the Practice Set and Challenge Problems.

Peer Learning **approx. 1 hour**

Nine experienced math competition coaches will share their recommendations on how to establish and grow a math team culture in your school. They also will share best practices for preparing students for math competitions.

Community Learning **approx. 3 hours**

With direction from the Course Facilitator, course participants will join in weekly, online discussions.

Professional Development Hours

Teacher certification (new and renewal) requirements vary greatly by state. Please confirm in advance that completion of this course will satisfy your state's/county's/system's requirements. The work in this course is directly relevant to the common professional development areas of: Enhanced Content Knowledge, Professional Seminar & Workshop, and Professional Development Activities.