What is the Junior High Math club?

The Junior High Math club provides enrichment for students in grades 6-8. All students in these grades are welcome to join, though as our work is a little more challenging, the opportunity is most enjoyable for students who enjoy a challenge and/or enjoy math.

We meet most Sundays through the fall in the late afternoon/early evening with two sessions.

Each session covers its own curriculum, with overlapping time for pizza and a joint topic. The earlier session runs 5-6:15pm and focuses on Number Theory (also using materials from Art of Problem Solving). The later session, 5:45-7pm, focuses on Counting and Probability (again using Art of Problem Solving's materials).   The overlap (5:45 – 6:15pm) involves pizza. Dates and topics below:

Date	Session A (Number Theory) 5:00 - 6:15	Session B (Counting and Probability) 5:45 - 7:00
31-Aug	*Labor day weekend*	
7-Sep	Intro and divisibility	Intro, lists, and Fundamental Counting*
14-Sep	Primes and composites	Factorials and permutations
21-Sep	Multiples and divisors	More permutations
28-Sep	Prime factorization	Venn diagrams (PIE)
5-Oct	Euclid, more GCF/LCM	More Venn diagrams (PIE)
12-Oct	*Columbus day weekend*	
19-Oct	Modular arithmetic	More Venn diagrams (PIE)
26-Oct	Base number systems	Complementary counting & Restrictions
2-Nov	More base numbers and arithmetic	Permutations and strategic over-counting
9-Nov	*Bye week*	
16-Nov	Counting divisors	Committees and combinations
23-Nov	More divisors; arithmetic shortcuts	Committees and combinations
30-Nov	*Thanksgiving weekend*	
7-Dec	Units digits	Harder counting problems
14-Dec	Cryptorhythms	Probability

Students in these sessions are given a worksheet with a few problems to reinforce what was covered (typically involving 10-20 min). Problems of varying difficulty are made available to accommodate where each student is at on his or her journey.

The first session is geared to students who have reached Pre-Algebra and typically includes 6th and 7th graders. The later session is geared to students with more math experience, typically 7th and 8th graders. Please note - 7th graders participating for their second year are encouraged, though not required, to try to join both sessions. Students who follow this path end up attending both sessions at least twice and later tend to outperform in high school.

For those interested in more challenging material (e.g., because they want to do well in math contests or prepare for rigorous high school classes), additional contest prep material is made available. As the

goal is to help all students grow, our materials can support students getting started as well as those prepping for competitions at the national level.

What commitment is expected?

Students are welcome to come to as many or few of these sessions as they wish, though the benefit increases with attendance.

There is no charge for the materials in these sessions, though families of participating students are asked to contribute a one-time contribution of $30 to cover pizza and water for the semester. Also, one parent volunteer with the appropriate background clearances on file with ASCA needs to be present so that we always have at least two adults present (with this volunteer typically just sitting in the back). Sign-ups for volunteers are coordinated at the start of the season.

Students are expected to be respectful and engaged – if behaviors work against the group's efforts to grow, then that student will not be welcome.

How does participation in math competitions happen?

Math competitions are typically at the discretion of each school with selection varying by event. For MATHCOUNTS at ASCA, a school-level competition determines who will represent ASCA at regionals.

Do you have to participate in competitions to be in the club?

Nope. Different people are interested in the club for different reasons … obviously, many enjoy math and or have academic interest in preparing for advanced high school classes supported by the enrichment … others enjoy the social aspect and the pizza.

Our goal is to help the students achieve their goals – whatever they may be - and celebrate with them.