

AIMC 8/10/12



AMERICAN MATHEMATICS COMPETITION

INDIVIDUAL COMPETITION FOR MIDDLE & HIGH SCHOOLERS



https://maa.org/amcreg





- The American Mathematics Competitions (AMC) began in 1950 and is organized by the Mathematical Association of America.
- It is one of the most recognized math contests for middle and high school students in the U.S. and worldwide.
- AMC offers levels for different grades: AMC 8, AMC 10, and AMC 12.
- Top scorers advance to higher rounds like the AIME, USAJMO, USAMO, and International Math Olympiad.



Why Math Contest?

- Enhances readiness for premier colleges
- Builds confidence in math and strengthens problem-solving skills
- Provides international recognition and fosters a lifelong interest in math
- Encourages collaboration with like-minded, math-passionate peers
- Boosts academic profiles to stand out on applications and qualify for scholarships



Competition Format

- Format: Administered once a year, available in-person (paper) or online through registered competition centers.
- AMC 8: 25 multiple-choice questions, 40 minutes, for grades 6–8.
- AMC 10 & 12: 25 multiple-choice questions, 75 minutes, for high school students (AMC 10 for grades 10 & below; AMC 12 for grades 12 & below).

AMC 8 \rightarrow AMC 10 \rightarrow AMC 12

Feature	AMC 8	AMC 10	AMC 12
Туре	Individual	Individual	Individual
Questions	25 Q, 40 min	25 Q, 75 min	25 Q, 75 min
Eligibility	≤ Grade 8, under 15.5 yrs	≤ Grade 10, under 17.5 yrs	≤ Grade 12, under 19.5 yrs
Content	Middle school math	Algebra, geometry, number theory, prob	Full HS math incl. trig & advanced algebra
When	January	November (A & B dates)	November (A & B dates)
Next Step	Leads to AMC 10	Leads to AMC 12 & AIME	Leads to AIME → USA(J)MO → IMO

Registration



- Where to Register: Students register through their school, learning center, or an official AMC competition site (maa.org/amcreg)
- Individual Registration: If a school does not host AMC, families can sign up via online or local testing centers.
- Timeline: Registration typically opens in late summer/early fall and closes a few weeks before the contest date.
- Fees: Vary by testing site (generally between \$10-\$25 per student).
- Test Dates: Held once a year AMC 8 in January, AMC 10/12 in November.

Scoring & Awards



Scoring

- AMC 8: 25 multiple-choice questions, 1 point each (max score = 25).
- AMC 10/12: 25 multiple-choice questions, 6 points for each correct answer, 0 points for blanks, and 1.5 points for wrong answers (max score = 150).
- No penalty for skipping a question (better to leave blank than guess wrong).

Awards

- Honor Roll: Students with top scores nationally.
- Distinguished Honor Roll: Very top scorers (usually top 1%).
- Achievement Roll: High scores by students below the grade limit (younger participants doin well).
- School Awards: Certificates for top-performing students within each school.
- Advancement: High scorers on AMC 10/12 qualify for the AIME.

Rules



- Calculators, Notes, books, electronic devices are not permitted.
- Answers should be clearly written, bubble sheet (Scantron) answers only.
- Contests must be administered within the designated windows; no early or late administrations are allowed.
- Students must work independently without help.

Topics



AMC 8:

- Counting & probability
- Estimation & proportional reasoning
- Geometry (incl. Pythagorean Theorem)
- Graphs, tables, data interpretation & Early algebra

AMC10A&10B:

- Elementary algebra & geometry
- Elementary number theory & Basic probability

AMC 12A&12B:

- Advanced algebra
- Geometry & trigonometry

Resources



- Official AMC Website (MAA) Practice problems, past papers, and guidelines.
- Art of Problem Solving (AoPS) Books and discussion forums for AMC-level math.
- Past AMC Exams Free PDFs available on the MAA site and AoPS archives.
- Competition Math Books Competition Math for Middle School and Introduction to Counting & Probability (AoPS).
- Online Problem Banks Alcumus (AoPS), Brilliant.org, and other math challenge platforms.



THANK YOU!