



# AMC's Math Messenger

Fall 2009  
Middle School

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The Mathematical Association of America's American Mathematics Competitions

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## AMC 8 Training Tip

For a daily preparation for the AMC 8, try going to the website of the Mathematical Association of America (MAA) at [www.maa.org](http://www.maa.org). There in the "Columns" area at the right of the page is the daily "MAA Minute Math." Each weekday, the MAA posts a new problem from the AMC 8, the AMC 10, and occasionally the AMC 12. You can read the basic problem right there, or click on the "Interactive Version" to get a version as it appeared on the contest with a hint and additional information. This is a great way to start your class or problem solving practice sessions.

## Calculator Policy

Beginning last year, November 2008, calculators are no longer allowed for use in the AMC 8 contest. No problems on the contest require the use of a calculator. This no calculator policy for the AMC 8 unifies the policies for the AMC contests at all levels. In particular, the AMC 10 A, AMC 12 A, AMC 10 B and AMC 12 B in February do not allow calculators or electronics. The invitational AIME contests have never allowed the use of a calculator.

A word of explanation is in order about this policy: This change comes after repeated lengthy discussions over a period of several years between AMC staff, the contest committee chairs, and sponsoring organizations. All of these, and in particular the contest committees who create, edit and polish the contests are still enthusiastic advocates of calculator usage by students in classrooms. The decision to make the AMC contests calculator-free came about for several reasons. The foremost of these has to do with the fact that not every contestant has the same level of calculating power available. Some modern calculators can do feats of factorization, equation

solving and graphing, geometric constructions and even programming that make some interesting mathematical questions pointless. In addition, it is becoming increasingly difficult to ensure that students are not using communication devices as calculators. For these reasons the AMC does not allow the use of any electronics on its examinations. One advantage of the calculator-free format is that contests can once again contain some of the easier computational exercises that often appeared as early problems on the pre-1994 contests.

## IMO 2009

The 50<sup>th</sup> Annual 2009 International Mathematical Olympiad (IMO) for high school-age students was held July 10-22, 2009 in Bremen, Germany. Two U.S. team members won gold medals (Eric Larson of Eugene, OR, and John Berman of Wilmington, NC). The remaining 4 of the 6-member team took home silver medals (Evan O'Dorney of Danville CA, Wenyu Cao of Andover MA, Delong Meng of Baton Rouge LA and Qinxuan Pan of Rockville MD.)

Teams from 104 countries, with 565 students present took part in the competition. The top 11 ranking teams were China, Japan, Russia, South Korea, North Korea, United States, Thailand, Turkey, Germany, Belarus, Taiwan and Italy. At the IMO, the USA team has consistently finished in the top ten for the last ten years. More details on the IMO results are available on the web at [www.imo-official.org](http://www.imo-official.org). The competition poses six math questions to be solved, three very challenging problems each day in a 4.5 hour session. Congratulations go to the team for a great performance. Thanks also go to team leader Zuming Feng and coach Josh Nichols-Barrer. Photos from the team training and touring are on our website at [www.unl.edu/amc](http://www.unl.edu/amc). The 2010

International Mathematical Olympiad will be in Astana, Kazakhstan. The American Mathematics Competitions is the official selection and training program for the USA team to the IMO.

## Chinese Girls Math Olympiad

All seven girls on the U.S. team at the 2009 China Girls Mathematical Olympiad team came home with medals.

Cynthia Day - Bronze  
Carolyn Kim - Silver  
Shiyu Li - Gold  
Patricia Li - Silver  
Ramya Rangan - Bronze  
Elizabeth Syngé - Silver  
Joy Zheng - Gold



### **2009 CGMO Team with their medals.**

*From left: Carolyn Kim, Patricia Li, Jennifer Iglesias, Shiyu Li, Joy Zheng, Zuming Feng, Cynthia Day, Ramya Rangan, Elizabeth Syngé.*

The CGMO was held in Xiamen on August 11-16, and the team of high school students from the United States took part in the competition for the third time. Once again, the MAA and MSRI co-sponsored the team.

To get ready for the contest in China, which has been held annually since 2002, the young women spent three weeks at the Mathematical Olympiad Summer Program at the University of Nebraska-Lincoln, which helped them develop their problem-solving skills.

Coaches for the team were Zuming Feng of Phillips Exeter Academy and director of the Mathematical Olympiad Summer Program since 2003, and Jennifer Iglesias, a member of the 2007 and 2008 U.S. China

Girls Mathematical Olympiad teams.

Other sponsors of the U.S. teams are Microsoft, Google, Akamai Foundation, The Shiing-Shen Chern Foundation for Mathematical Research, and The Sunlin and Priscilla Chou Foundation.

## New AMC 8 Compact Disc

The AMC has reached way back to the beginnings of the AMC 8! Again in September 2009, we include the 21st Century Disc, containing all the AMC contests from 2000 to April 2009, with the AMC 8 Math Club Package. You can also buy the 1984-1999 AMC 8 Disc separately. If you are serious about training your students with interesting, challenging, different, and multi-step problems, then you'll want to get both discs with the complete problems and solutions for all 24 of the American Junior High School Mathematics Exams (AJHSME) 1984-1999 and the AMC 8 (2000-2008).

## New and Improved AMC 8 Email Reports

Since 2001 the AMC office has been emailing the AMC 8 contest results directly to teachers, followed in the mail by the familiar paper report accompanying the awards pins and certificates. Emailing the results gives you the results fastest way possible, immediately after we have processed your answer sheets. Now we have added a new feature to the emailed reports: Along with the results in the usual report form, we will now also include all individual student data in comma-delimited format, so you can import the results immediately into a spreadsheet for analysis. This will allow you to analyze your school results in the way that is most meaningful to you with your favorite software. We hope you enjoy this new feature, along with all the familiar reports you are used to seeing.

### **2009-2010 AMC contest dates:**

- **AMC 8** – Tuesday, November 17, 2009
- **AMC 10 & AMC 12** – Tuesday, February 9 and/or Wednesday, February 24, 2010
- **AIME** – Tuesday, March 16 or Wednesday, March 31, 2010
- **USAMO** – April 27-28, 2010
- **MOSP** – June-July, 2010
- **2010 AMC 8** – Tuesday, November 16, 2010