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# AMC's Math Messenger

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## USA wins 3 Gold Medals, 3 Silver Medals at the 2010 IMO

The six members of the USA team won 3 Gold medals and 3 Silver medals at the 2010 International Mathematical Olympiad (IMO). The USA team ranked third among all 96 participating countries in total points (China was this year's overall winner, the Russian Federation placed second). A listing of the team members and their scores and medals are as follows:

- **Calvin Deng**, a student at William G. Enloe High School in Cary, NC, earned a silver medal with 26 points.
- **Benjamin Gunby**, of Potomac, MD and a student at Georgetown Day School in Washington, DC, earned a gold medal with 27 points.
- **Xiaoyu He**, a student at Acton-Boxborough Regional High School in Acton, MA, earned a gold medal with 28 points.
- **In Sung Na**, a student at Northern Valley Regional High School at Old Tappan in Old Tappan, NJ, earned a silver medal with 25 points.
- **Evan O'Dorney**, home schooled at Venture School in Danville, CA, earned a gold medal with 39 points.
- **Allen Yuan**, of Farmington, MI and a student at Detroit Country Day School, earned a silver medal with 23 points.



*The 2010 USA IMO Team with their medals.*

The USA team has consistently finished among the top ten teams for the last ten years at the IMO. At this year's IMO 517 young mathematicians from 96 countries competed in solving 6 difficult problems on July 7 and July 8. Overall, the IMO awarded 47 gold medals, 104 silver and 115 bronze medals. This year the competition was held in Astana, Kazakhstan, July 2 - 14, 2010. The 2010 IMO is the 51st in the annual series of international mathematical competitions. More details are available on the IMO website.

The sponsor of the USA team to the IMO is the Mathematical Association of America. Additional contributions come from 23 organizations and companies in the mathematical sciences. High scores on a four-stage process of mathematics testing by the Mathematical Association of America's American Mathematics Competitions select the USA team members.

## President Obama Congratulates IMO Medalist Evan O'Dorney

President Obama offered his congratulations to Evan O'Dorney, who earned the second highest score—and a gold medal—at the 51st International Mathematical Olympiad in a telephone call to O'Dorney on July 30, 2010, which began with the words, "This is the president," Obama praised O'Dorney for his stellar performance as well as that of his team, which took third place. "I'm proud of you for all the hard work you've done making a difference in being a role model for kids in the US," said the president.

## 2010 Chinese Girls Math Olympiad

One of the two USA teams that competed placed second, behind a team from China, in the overall standings among 48 teams of girls from about ten countries throughout the world. Of the eight girls on the USA teams, seven students won top honors—five gold medals, one silver medal, and one bronze—at the international competition. This year's gold

medals were awarded to Shiyu (Jing-Jing) Li, Jae Eui Shin, Elizabeth Synge, Lynnelle Ye, and Shijie Joy Zheng. Cynthia Day won a silver medal, Adisa Kruayatidee was awarded a bronze medal, and an honorable mention acknowledged Andi Wang. The team that won second place included: Jae Eui Shin, Elizabeth Synge, Lynnelle Ye, and Shijie Joy Zheng. The two-day competition features eight problems, each covering major topics: algebra, combinatorics, geometry, and number theory.

“In particular, Lynelle provided the most insightful solution to problem 4, which might well be the hardest problem on the exam,” team coach Zuming Feng reported. This year’s Olympiad took place August 9-13 in Shijiazhuang, the capital of Hebei Province, about 40 miles southwest of Beijing. The USA team spent a few days in Hong Kong on the way to the competition to adjust to the time change and a few days in Beijing on the way home. For more on their trip, read the girls’ postings on MSRI’s Travelogue. Assistant coaches this year were Inna Zakharevich and Sherry Gong. Zakharevich was in the top 12 at the 2002 USAMO and is currently a graduate student at MIT. Gong was a member of the 2007 USA IMO and 2007 GMO teams and is currently at Harvard. MAA is an official partner with Mathematical Sciences Research Institute in supporting the USA team. Other partners include IBM Research - Almaden, Akamai Foundation, Sunlin and Priscilla Chou Foundation, and Science Workshop.



*The 2010 CGMO Team*

## Calculator Policy

As of 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.

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.

## New resources available from the AMC Office

- The new 21st Century CD is now available for purchase from the AMC. The order form is on the AMC web page, click “Order Form” under Publications on the left navigation panel. The new disc contains the 2009 AMC 8, the 2010 AMC 10 and AMC 12 contests, AIME, and the USAMO. That means the disc has a complete set of AMC 8 contests and solutions from 1999 to the present, so it is an unbeatable deal for training your team or math club.

- The AMC web page has a new and revised set of Frequently Asked Questions (FAQ). There are now 96 questions and answers, nearly double the number we have previously addressed. These questions are the most frequently received questions coming to the office by email, phone and web forums. The answers are the official word from the AMC office, so you know they are correct, up to date and complete. Check our website first to save time. The FAQ is divided into sections for General, AMC 8, AMC 10/12, AIME, USAMO, USAJMO, and MOSP, with navigation at the top so you can quickly find the section you need.

- We are redesigning our online Web Registration system to make it faster, easier and friendlier. Watch for it to be activated on our web pages soon. This will soon be the preferred means for registering for the contests.

### 2010-2011 AMC contest dates:

**AMC 8** – Tuesday, November 16, 2010

**AMC 10 & AMC 12** – Tuesday, February 8 and/or  
Wednesday, February 23, 2011

**AIME** – Thursday, March 17 or Wednesday, March 30, 2011

**USAMO** – April 26-27, 2011

**MOSP** – June-July, 2011

**2011 AMC 8** – Tuesday, November 15, 2011