

For girls, a rare chance to flex math muscles at MIT

Competition aims to defeat gender
stereotypes

By Jennifer Smith | GLOBE CORRESPONDENT SEPTEMBER
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More than 250 seventh through twelfth grade students from around the country took part in the annual Math Prize for Girls competition at MIT Saturday.

CAMBRIDGE — Heads bowed, faces focused on the equations in front of them, hundreds of girls worked furiously on a series of math problems in an MIT lecture hall on Saturday morning.

But tens of thousands of dollars in prize money was not the only thing on the line.

Now in its sixth year, the Math Prize for Girls competition is aimed at deflating gender stereotypes that organizers say dissuade young women from entering technology-based fields.

Started by the Advantage Testing Foundation in 2009, this year's contest brought about 270 girls in grades 7 through 12 from around the United States and Canada to MIT.

Zoe Feng, 18, a high school senior in Troy, N.Y., competed in the Math Prize for her second time.

“It was intense, but also really fun and creative,” Feng said, adding that “the test requires you to think and approach problems from different angles.”

Originally from Hangzhou, China, Feng came to the United States for high school. To her, being a girl never seemed like a disadvantage when she wanted to pursue math.

“There's not a bunch of ‘boys can do better’ in China,” Feng said.

Kaiming Sun, 46, of Belmont, whose 15-year-old daughter, Stephanie Zhang, is a participant this year, said the event helps reassure girls that they can be “equally as good as boys.”

A female-focused math event is needed to bridge the gap between men's and women's involvement in science, technology, engineering, and mathematics, also known as STEM, organizers said.

“Girls perform as well as or better than boys in math classes in grade school, but there is an alarming drop-off in the number of young women who study math in college and pursue math-related careers,” Ravi Boppana, the competition's cofounder and director, said in a statement.

The Math Prize was created to “debunk gender stereotypes, and to support young women who see higher-level mathematics as a pursuit that is challenging, fun, and incredibly rewarding,” he said.

Behind a registration counter, young women bustled in blue T-shirts emblazoned with the symbol for pi. All were alumni from previous events, according to Maria DeVuono-Homberg, the associate director of the Advantage Testing Foundation.

Girls participating in the contest are encouraged to stay in STEM fields and interact with strong role models in those areas, said DeVuono-Homberg.



WENDY MAEDA/GLOBE STAFF

Suzy Lou of San Jose, Calif. concentrated during the competition.

Toronto native Melody Guan, 20, is a junior at Harvard studying chemistry, physics, and statistics. She competed in the Math Prize in her junior and senior years of high school, and has volunteered with the organization for the past few years.

“I feel like it can be difficult for girls in math, because there are so

few,” Guan said. “When you’re the only girl in a math class, it can be disconcerting,” she said.

The event also facilitates networking with others in the field and building a strong community of math-oriented girls, according to Vickie Wang, 17, a freshman at MIT and former Math Prize participant.

Participants qualified for the Math Prize by earning a top score on the American Mathematics Competition exam in February.

While at some national competitions female contestants can feel the need to prove themselves to male peers, “at the Math Prize, we’re all girls, and we all understand what that’s like,” Wang said.

After being ushered into the event hall, the participants were given 2½ hours to finish 20 challenging multistage math problems.

The answers were reviewed by a panel of judges from MIT and the Advantage Testing Foundation.

Celine Liang, 16, took the highest score at the competition — and the top prize of \$29,300 — by correctly answering 17 out of the 20 questions. The junior at Saratoga High School in California was stunned.

Liang competed in the two previous years, but “you don’t exactly come here to win,” she said. “A lot of people come here just to solve the problems. That’s what math people do, and it’s been great to meet other girls with the same interests.”

At the awards ceremony, a Math Prize alumna shared her desire for female students to embrace mathematics as a creative field. Dina Katabi, an electrical engineering and computer science professor at MIT, gave the keynote speech.

As the girls tapped their pencils and mouthed problems to themselves during the competition, the founder of an online

school for enthusiastic mathematics students gave a presentation to parents.

Richard Ruscyk, founder of the Art of Problem Solving, said showing girls interested in math that they are not alone is vital to getting them to continue in the field.

For young women used to male-dominated math classes competitions, contestants said the Math Prize was a welcome change.

“Most math competitions are mostly boys,” said 15-year-old Indumathi Parakash, a freshman in Sharon. “I felt like this was better. This shows that there are a lot of girls just as smart as they are.”

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