



"I had a wonderful time in the AwesomeMath Summer Program! Thank you so much for the great opportunity. I had a lot of fun being around the people that have the same interest and at the same time I have gained a lot of knowledge of math!! AMSP 2008 was one of the best experiences in my life!"

- Meiyao Tysinger, Mocksville, NC

## APPLYING to AMSP 2009

Each student must submit:

- A personal information form
- Two letters of recommendation: one from a math teacher or mentor and one from someone who knows the student in a personal context
- A completed admission test
- The \$50 application fee

Please mail submissions to:

**AwesomeMath c/o Dr. Titu Andreescu**  
1721 Monaco Drive, Allen TX 75002

The test is the student's opportunity to demonstrate the willingness to explore advanced mathematics topics and the ability to tackle challenging, non-routine problems. Tests will be posted online in **January, April, and May** (see the schedule below). Solutions must be e-mailed or postmarked to AwesomeMath by the dates indicated in the table.

In making our admission decision, we consider the application as a whole. It is not only the raw test score that matters but the passion for mathematics that becomes evident in the student's complete application.

It is important to apply early, since a discount of **10% of the tuition fee is given for early registration** (if paid by the due date) and airfare is cheaper when purchased in advance.

The tuition for the program is \$3,295 for Dallas and \$3,695 for Santa Cruz. This covers room, board, transportation from/to airport, and all camp activities and trips. AMSP 2009 participants receive a \$200 discount on the subsequent AwesomeMath Year-round program (AMY).

Please visit the AwesomeMath website at <http://www.awesomemath.org/> for complete information about the summer program and to download application instructions and materials.

If you have any questions, do not hesitate to get in touch with the director, Dr. Titu Andreescu: [info@awesomemath.org](mailto:info@awesomemath.org) | (214) 549-6146 or (214) 549-7880

	early registration	normal registration	late registration
Application Deadline	02 / 09 / 09	04 / 13 / 09	05 / 25 / 09
Required Admission Test	Test A 01/30 - 02/09	Test B 04/03 - 04/13	Test C 05/15 - 05/25
Response to Applicant	02 / 16 / 09	04 / 20 / 09	06 / 01 / 09
Tuition Receipt Deadline	02 / 27 / 09	05 / 01 / 09	06 / 12 / 09

## OTHER AwesomeMath Programs

AMSP has a follow-up program: the **AwesomeMath Year-round (AMY)**. It is given in six segments spread monthly throughout the school year and provides students with further opportunities to broaden their mathematical horizons and hone problem-solving skills, particularly in those fields from which Olympiad problems are drawn. Rather than concentrating solely on problem-solving techniques, the material covered familiarizes students with general mathematical concepts and widely applicable methods of proof. The AMY extends and solidifies the mathematics learned during the AwesomeMath Summer Program.

"I really appreciate this camp because it brought awesome and math together. I made so many friends and learned a lot. AwesomeMath is an experience I will never forget."

Allison Koenecke, Falls Church, VA

Additionally, AwesomeMath publishes **Mathematical Reflections**, a free online journal designed primarily for high school students and undergraduates interested in mathematics. We hope that some work done at the camp will be published therein. The journal's website is [reflections.awesomemath.org](http://reflections.awesomemath.org). Also check the website for new published books by **XYZ Press**.

"Thank you for your hard work for the camp, I had an incredible time this summer."

Aaron Roe, Oklahoma City, OK

SAMPLE ADMISSION TEST QUESTIONS

Write 1,000,000 as a sum of a prime number and a perfect square.

Can you arrange the numbers 1 through 16 on a circle such that the sum of each two adjacent numbers is a perfect square? Same question for a line.

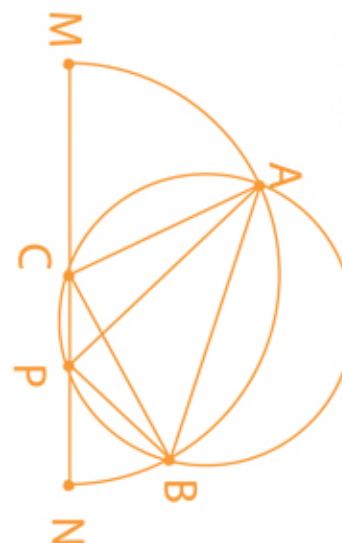
Points M and N lie on a semicircle of diameter AB such that  $AM - BM = 3$  and  $AN - BN = 7$ . Let P be the point of intersection of AN and BM. Evaluate area AMP - area BNP.

"The three weeks I spent at the AwesomeMath were the most productive ones in my life. I learned so many different topics which I never even knew existed before. The teachers were some of the top-notch professors and former Olympiad winners from all around the globe. Their accents and names are as exotic as the problems and skills that they taught me! The mentors at the camp were the coolest on the planet. They were all high achievers and former USAMO/IMO participants..."

Anupa Murali, Concord, NH

## AMSP Sponsors

THE UNIVERSITY OF TEXAS AT DALLAS - SPRINGER / BIRKHAUSER  
UNIVERSITY OF CALIFORNIA, SANTA CRUZ



**AwesomeMath**  
making x,y,z as easy as a,b,c  
c/o Dr. Titu Andreescu  
1721 Monaco Dr.  
Allen TX 75002



**AwesomeMath**

July 6 - 27

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July 31 - August 21

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## AWESOMEMATH'S Goals

- Provide a fun, intellectually stimulating environment for students to learn math.
- Inspire a love of mathematics and learning that lasts into college and beyond.
- Help students significantly improve their performance in mathematics competitions.
- Make mathematics itself and the entire camp experience highly enjoyable.

## WHY AwesomeMath Summer Programs

AwesomeMath is designed for bright students with a special interest in mathematics competitions.

Both camps offer mathematically gifted students the opportunity to engage in **meaningful problem solving** activities and explore in detail areas in **advanced mathematics**. The **high quality instruction** is provided by **renowned lecturers** and **Olympiad coaches** from around the world.

AwesomeMath's philosophy is that students learn better by diving into problems than just sitting through lectures. For this reason our **teaching sessions encourage student involvement** and are centered on using what is learned to solve concrete problems.

## AMSP Leadership

**DR. TITU ANDREESCU**, University of Texas at Dallas, AMSP Director  
US IMO Team Leader (1995 - 2002)  
Director, MAA American Mathematics Competitions (1998 - 2003)  
Director, Mathematical Olympiad Summer Program (1995 - 2002)  
Coach of the US IMO Team (1993 - 2006)  
Member of the IMO Advisory Board (2002 - 2006)  
Chair of the USAMO Committee (1996 - 2004)  
MAA Sliffe Award winner for Distinguished Teaching

**DR. ZUMING FENG**, Phillips Exeter Academy, AMSP Academic Director  
US IMO Team Leader (2003 - present)  
US IMO Deputy Team Leader (2000 - 2002)  
Academic Director of MOSP (2003 - present)  
Coach of the US IMO Team (1997 - present)  
Member of the USAMO Committee (1999 - present)  
MAA Sliffe Award winner for Distinguished Teaching

## AMSP Faculty\*

**Dr. DORIN ANDRICA**, Babes-Bolyai University, Cluj-Napoca, Romania  
Chairman, Department of Geometry, Babes-Bolyai University (1995 - present)  
Member of the National Council for the Romanian Mathematical Olympiad  
Mathcamp problem-solving instructor (2001 - 2005)

## ACADEMIC Program

The structure of the academic program will be the same for both locations. The lectures will focus on the following subjects: Foundations of Number Theory, Euclidean Geometry, Algebraic Inequalities and Techniques, Modular Arithmetic, and Computational Geometry.

Every course will be taught by instructors and the mentors will follow each teaching session by a 90-minute problem seminar that focuses on the materials presented in the lecture.

*"Thank you for making my stay at AMSP very pleasurable and enjoyable. I will always remember this camp as an eye opener to pursuing my mathematical talent. I am already missing the daily camp life. This camp exercised my mind thoroughly making it easier for me to solve problems. This was the first time I was exposed to this kind of math. I have realized that I have a lot of work to do in improving my problem solving skills. This was one of the most inspiring moments of my life."*

Aneesh Sampath, Setauket, NY

## GENERAL Information

The program is designed for students going into 7th-12th grades. Younger students may apply, but significant evidence of mathematical and personal maturity must be evident for admission.

We encourage female students to apply to our program. The China Girls Math Olympiad team trained at the AwesomeMath Summer Program 2007. We strive to create a culture of learning that treats everyone as a full member so that nobody feels out of place.

*"Thank you for all you have done for the AMSP 2008. This was first time for Steve, but he enjoyed this program MUCH! Steve said that it was very educational, resourceful, and very fun. He met lots of friends and was very impressed with many amazing kids from all over the places. Steve wishes he can return to the program next year. I also thank to all staff who ran this program smoothly and made it so great."*

Eunjoo Park (mother of Steve Han), Gainesville, FL

**DR. JOSHUA NICHOLS-BARRER**, University of Western Ontario, Canada  
MOSP instructor (2005, 2006)  
IMO Silver Medalist (1995, 1997)  
USAMO Winner (1995 - 1997)

**Dr. MIRCEA BECHEANU**, University of Bucharest, Romania  
Deputy Chairman of the Romanian Mathematical Society (1995-present)  
Coach of the Romanian IMO team (1996-2002)  
Leader of the Romanian IMO team (1988, 1995-2002)  
Member of the IMO Problem Selection Committee (2003, 2004, 2005)

**BOGDAN ENESCU**, National College BP Hasdeu, Romania  
IMO Gold Medalist (1978), Bronze Medalist (1977, 1979)  
Coach of the Romanian IMO team (1989 - present)  
Deputy Leader of the Romanian IMO team (1995 - present)  
MOSP invited speaker (1999, 2001, and 2002)

### CHENGDE FENG

Instructor, Oklahoma School of Science and Mathematics (1991-2007)  
Faculty, Mathematics Olympiad Summer Program (MOSP) (2002)  
Senior Coach, China Mathematics Olympiad Committee (1988-1990)  
MAA Sliffe Award winner for Distinguished Teaching

## LIFE at the Camp

### Dallas Location

The camp is held on the beautiful, safe campus of the University of Texas at Dallas. Students will live in the University Village, the school's apartment-style student housing. In each spacious, fully-furnished apartment (with washer/dryer), a group of several students of the same sex and similar age will live with an assistant--a college student whose passion is mathematics and who will be available around the clock.

Students will have access to all sorts of recreational activities: the University's outdoor athletic facilities (tennis, soccer, frisbee, basketball), its newly-opened disc golf course, as well as University Village's swimming pool and beach volleyball courts.

*"My son Tolga has returned home safely after three weeks at AwesomeMath Summer Program 2008. I personally would like to thank you and all other AMSP staff for a very well organized and planned program which challenged and improved Tolga's personal skills and knowledge not only in Maths but in social relationships as well."*

Murat Özdoğan, Istanbul, Turkey

### Santa Cruz Location

UC Santa Cruz offers the academic excellence of a world-class research university within a unique small-college setting. It is nestled on 2,000 acres of redwood forest and meadows, overlooking Monterey Bay. Its students and faculty affiliate with ten residential colleges, each with unique architecture and environment.

The residence hall floors, typically shared by 12 to 20 students, have common bathrooms and lounge areas. UC Santa Cruz has an award-winning dinning program that offers virtually any type of food you can imagine while delivering the utmost in quality.

For both locations, in addition to providing access to the university's facilities, the staff will organize special events on weekends.

All activities at the camp are supervised. We make our students' safety our top priority.

### YUNHUA XU FENG

Instructor, Oklahoma School of Science and Mathematics (1994-2007)  
Outstanding High School Teacher Award, University of Chicago (1999)  
Teacher, Most Influential in Development of Student Scientific Career, Westinghouse Science Talent Search (1998)

### Dr. RAZVAN GELCA, Texas Tech University

IMO Gold Medalist (1984)  
MOSP Instructor (2002 - present)  
US IMO Deputy Leader (2008)

### Dr. OLEG MUSHKAROV, Bulgarian Academy of Sciences-Institute of Mathematics and Informatics

Senior Research Fellow (1979 - present)  
Head of Department of Complex Analysis (2002 - present)  
Bulgarian IMO Team Leader (1994 - 1998)  
Scientific Group for preparation of talented students (1984 - present)

## JUNIOR Faculty

### IVAN BORSENCO, Massachusetts Institute of Technology

IMO Gold Medalist (2006), Bronze Medalist (2003-2005)  
Assistant editor, Mathematical Reflections (2006 - present)

## A TYPICAL Day

Tuesdays through Saturdays will follow a schedule close to the one below. Academic team contests will be held on Sunday evenings.

8:00 am - 9:00 am	Morning routine and breakfast.
9:00 am - 10:30 am	Teaching sessions.
10:45 am - 12:15 pm	Problem sessions.
12:15 pm - 2:00 pm	Lunch break.
2:00 pm - 3:30 pm	Teaching sessions.
3:45 pm - 5:15 pm	Problem sessions.
5:30 pm - 7:00 pm	Dinner.
7:00 pm - 8:30 pm	Mathematics forum (optional)
7:00 pm - 10:00 pm	Recreational activities (optional)

*"I would like to thank you for accepting me to AMSP. I learned many techniques and theorems I would have never learned about. The math was interesting while at the same time challenging. AMSP was very fun both years, with plenty of time for fun activities. Thank you for your time spent organizing such a useful and fun program."*

Edward Dinh, Irvine, CA



## VISITING Faculty

**Dr. JONATHAN KANE**, University of Wisconsin-Whitewater

**Dr. HAROLD REITER**, University of North Carolina, Charlotte

**NAOKI SATO**, Art of Problem Solving

**Dr. ZORAN SUNIC**, Texas A&M University

**Dr. RAVI VAKIL**, Stanford University

## SPECIAL Guest

**Dr. ARTHUR BENJAMIN**, Harvey Mudd College  
World renowned **Mathemagician**

## MENTORS AND Assistants

Mentors and assistants are graduate or undergraduate students who will share with the students their knowledge, experience, and love of mathematics. Many are former Olympiad students with an outstanding record in the IMO. They will also conduct the camp's problem sessions.

\* We are in the process of hiring more faculty.  
Please check [www.awesomemath.org](http://www.awesomemath.org) for updates.