

The UT-Pro2Serve Math Contest was created to

promote interest in mathematics among Tennessee high-school students, to encourage their interest in careers in mathematics and mathematical sciences, and to recognize their mathematical ability by awarding scholarships, trophies, plaques, and certificates.

Why Compete?

Previous UT-Pro2Serve Math Contest winners have been very successful at UT, and you could be too:

- ✓ UT's team in the 2004 William Lowell Putnam Mathematical Competition, consisting of **Nick Boatman** ('02) of Carter High, **Eric Mueller** ('00) of Farragut High, and **Hai Nguyen** ('02) of Dekalb County High, placed a phenomenal 17th out of 515 teams from top colleges and universities in North America. The Putnam is the nation's oldest and most prestigious math contest for undergraduates. The top five teams indicate the level of competition: MIT, Princeton, Duke, the University of Waterloo, and Caltech.
- ✓ **Nick Boatman** was also on the UT Math Jeopardy team that won the regional finals at Meredith College in Raleigh, NC. He was accepted to Tulane's summer 2005 Research Experience for Undergraduates Program. In 2007 Nick won the John H. Barrett Prize for outstanding undergraduate mathematics majors, as did **Hai Nguyen**.
- ✓ Phi Beta Kappa **Britni Ratliff** ('00) of Hendersonville High was awarded one of three national Goldwater scholarships, as well as a Melvin Rhenium scholarship from the chemistry department. She participated in the summer 2005 SURF NIST Boulder program.
- ✓ **Yue Cao** ('06) of Knoxville West High placed 18th out of 500 in the 2009 Virginia Tech Regional Mathematical Competition. He graduated in 2011 with a double major in electrical engineering and mathematics. Yue has published three articles during his time here, including one in *PURSUIT—The Journal of Undergraduate Research at the University of Tennessee*. In 2011 Yue will begin work on a master's degree in electrical engineering (power and energy systems) at the University of Illinois—Urbana-Champaign.
- ✓ **Sean Maginnis** ('05) of Dobyns-Bennett High and **Stephen Mandry** ('07) of Oak Ridge are close to finishing their degrees in computer science.
- ✓ **Alex Houck** ('09) of Farragut High School is busy pursuing a degree in biological sciences.

**To sign up, see your
math teacher right away!**

THE UNIVERSITY of
TENNESSEE **UT**
KNOXVILLE



Media sponsor:



The Mathematics Department of the University of Tennessee, Knoxville, sponsored the first Tennessee Math Contest in 1999. Now Chancellor Jimmy Cheek funds the \$4,000 annual scholarship awards.

This year's contest is the 13th annual math contest, co-sponsored for a 11th year by Pro2Serve® Professional Project Services Inc. of Oak Ridge. As part of a commitment to the communities where its employees live and work, Pro2Serve® Professional Project Services Inc. (www.p2s.com) has proudly sponsored the UT-Pro2Serve Math Contest since 2001. The event is designed to encourage the state's brightest math students to attend college, work, and live in Tennessee. For the second consecutive year, the *Knoxville News Sentinel* is partnering with UT Knoxville as our media sponsor.

13th Annual



Math Contest

for Tennessee High School Students
Thursday, October 20, 2011

Presented by the Department of Mathematics
of the University of Tennessee, Knoxville, and Pro2Serve®
Professional Project Services Inc.
Media sponsor: *Knoxville News Sentinel*

Thursday, October 20, 2011
7:30 a.m. to 4:30 p.m.

The University of Tennessee, Knoxville
www.math.utk.edu/MathContest

1-DAY COMPETITION FORMAT

NOTE: Competitors may not use calculators for any phase of the competition.

For more detailed information about the annual UT-Pro2Serve Math Contest, including past exams and Math Bowl rules, visit www.math.utk.edu/MathContest.

*"FERMAT" is an acronym for "Fundamental Exams of Remarkable Mathematical Ability and Talent," but by choosing this name, we also honor the amazing Pierre de Fermat (1601–1665). Fermat was a French lawyer and public servant who was also a brilliant mathematician credited with founding modern number theory, developing differential calculus, and laying the groundwork for analytic geometry and probability theory. Check out a more detailed biography and the far-reaching utility of Fermat's "Little Theorem" at www.math.utk.edu/MathContest.

WHAT	WHO	RECOGNITION/AWARDS
FERMAT* I Exam A 1-hour multiple-choice exam	All participants	Top 5 scorers receive engraved plaques Top 50 scorers advance to FERMAT II and receive certificates of merit All participants receive certificates of participation (mailed to schools)
Math Bowl Competition Begins A <i>College Bowl</i> -style double-elimination tournament	3-member teams from schools divided into two divisions by school size	
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FERMAT II Exam An essay-problem test that requires creativity and originality of problem-solvers	Top 50 scorers on the FERMAT I Exam	Top 10 scorers on FERMAT II receive 4-year \$4000-per-year undergraduate scholarships to UT Knoxville, plus an engraved plaque commemorating the award
Math Bowl Competition Concludes	3-member teams from schools divided into two divisions by school size	Top 2 teams in each of the 2 divisions receive team trophies and individual medals

TEACHER'S INFORMATION

Earn prestige for your school's mathematics program while you encourage your students' mathematical talent and ambition—bring them to the 13th Annual UT-Pro2Serve Math Contest.

They'll have a great experience on the UT system's Knoxville campus with talented students from all over the state, as well as the chance to earn \$4000-per-year scholarships to Tennessee's top public doctoral research university. To offer your students this great opportunity, register your group by October 6, 2011.

Important Dates

August 8 Early registration opens (\$10 per attendee)

September 16 Early registration closes; attendance fee increases to regular rate

September 19 Regular registration period (\$15 per attendee)

October 6 REGISTRATION CLOSES (No on-site registration will be available)

Contest Details

The contest is designed in a concentrated 1-day format. It consists of two parts:

1. A 2-stage individual competition called FERMAT (Fundamental Exams of Remarkable Mathematical Ability and Talent)
2. A Math Bowl team competition

FERMAT Exams

- ✓ All questions and problems used in the competition assume students' mastery of the course content of Algebra I, Algebra II, and Geometry.
- ✓ Students may not bring calculators to use either on the exams or in the Math Bowl.

Math Bowl

- ✓ The Math Bowl team competition is an exciting **double elimination** tournament styled like the *GE College Bowl*. In each round of the contest, a pair of 3-member teams square off, using a buzzer system to compete to answer 10 questions. A team receives a point for each correct answer within the allotted time.
- ✓ No scheduling conflicts—the Math Bowl takes place between the FERMAT I and FERMAT II sittings and while each set of exams is graded.

For more information—including past exams and detailed Math Bowl rules—visit www.math.utk.edu/MathContest.

Awards

Awards are presented immediately following the championship round of the Math Bowl, about 4 p.m.

REGISTRATION DETAILS: You may register beginning August 8, 2011

Online: Register at www.math.utk.edu/MathContest any time of day.

Phone: Call the UT Knoxville Math Department at 865-974-2461, 8 a.m. to 4 p.m. EDT.

- **Early registration:** \$10 per student, fees received August 8 through September 16
- **Regular registration:** \$15 per student, fees received until 4 p.m. on October 6.

NOTE: The contest is limited to 1,000 students and 64 Math Bowl teams. Each high school may register as many as 30 students, and three of its participants may form a Math Bowl team. If 64 teams have not registered and paid their fees by October 6, 2011, registered high schools will be permitted to enter a second team, first come, first served. At the time of registration, each high school should indicate the number of teams it would like to field. Home education associations may also enter teams. The tournament bracket is filled in order of registration date.

A nonrefundable registration fee is required for all attendees, including each contestant and all accompanying adults. The registration fee covers all contest activities and lunch. Checks should be made payable to the University of Tennessee. Registration is not complete until all fees are received. There will be no on-site registration! All fees must be received by 4 p.m. EDT on October 6.

Funding is available to help with lodging, travel, and bus expenses, as well as for teachers who accompany school teams with at least 10 students traveling more than 100 miles to Knoxville. Please apply at the time of registration. Funding application deadline is September 16. See the website for details.

Questions? Call the Math Department of UT Knoxville at 865-974-2461 or e-mail tmc@math.utk.edu