



The Ninth Adventures in Mathematics

FUN ACTIVITIES • FRIDAY, February 24, 2023 • 8:20 AM – 2:00 PM

Adventures in Mathematics (AIM), a finalist of the 2015 Tech Titans Award (<http://www.techtitans.org/>)-the Future University, is an annual event organized by the Department of Mathematics at Texas A&M University-Commerce for high school math teachers and their students. Participants will be involved in hands-on activities in math, listen to talks on math careers, watch planetarium shows, and experience lunch in the student cafeteria. The purpose of AIM is to increase students' interests in learning mathematics and offer teachers examples, methods and stories, which can be used in classrooms. High school teachers attending the Aslan Math Teacher Workshop will receive an honorarium of \$60, a waiver of registration fee, and a certificate of Continuing Professional Development Units. A registration fee of \$10 per participant is required to help cover all activities, including the planetarium show, refreshments and lunch. High schools are responsible for their own transportation to Commerce, TX.

For AIM, we also organize the **Northeast Texas Algebra Competition** (NTAC) at the level of algebra II. High school students led by their teachers are eligible to participate. In addition to individual awards, team awards will be given to the top five teams. Each high school can send a total of up to 15 students, consisting of 10 contestants and 5 alternates, for AIM and NTAC. A team score is determined by the sum of the top four scores of each team. At the end of AIM, competition awards and door prizes will be presented. Fifteen competition winners will receive the following prizes and certifications:

- **First Place:** A TI-84, a scholarship of \$2,000
- **Second Place:** A scholarship of \$1500
- **Third, Fourth, Fifth Place:** A scholarship of \$1000
- **10 Honorable mentions:** A scholarship of \$500

To receive the scholarship, the winner must notify the department head of mathematics, and attend Texas A&M University-Commerce as a fulltime math major within two years after graduation from high school. Winners are also encouraged to apply for [additional university and math scholarships](#).

To help us prepare sufficient refreshments and parking permits, please register by Friday, February 3, 2023. Contact Dr. Tingxiu Wang (tingxiu.wang@tamuc.edu, or 903-886-5958) for questions.

Where: Sam Rayburn Student Center
Texas A&M University Commerce
Commerce, TX 75429

8:20 AM - 8:50 AM: Registration (timely arrival is appreciated)

8:50 AM - 9:05 AM: Welcome and information (all meet in Conference Rooms A, B, and C)

9:05 AM - 10:00 AM: Northeast Texas Algebra Competition

10:10 AM - 11:00 AM: Activities I through VI

11:10 AM - 12:00 PM: Activities I through VI

12:10 PM - 1:30 PM: Lunch

1:30 PM – 2:00 PM: Competition awards and door prizes (graphing calculators and other gifts)
(winners need to be present for door prizes)



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The following activities will be held at the same time for 50 minutes and then repeated if possible.

Activity I: Aslan Mathematics Teacher Workshop (two hours)

Speakers: Ms. Laura Beene, Ms. Debra Newton, Ms. Rebecca Steward and Mr. Adam Bowden

Description: In this session mathematics teachers have the opportunity to learn math magic, math jokes, informal mathematics, experience various activities integrating technology that can be used in a mathematics classroom. Activities presented can be used in the following subject areas: Algebra I, Algebra II, Geometry, and Pre-Cal. Information about the math graduate program will be provided. Sponsored by the Aslan Mathematics Teacher Fund, teachers completing this workshop and a survey will receive a stipend of \$60, professional development units, and waiver of registration fee.

Activity II: Be a Mathemartist by Dr. Josh Patterson

Description: Review the winning artwork. Winners of the First Mathemartist Competition will talk about how they created the winning artworks. Be prepared for the Second Mathemartist Competition.

Activity III: Be a Math Major by Mr. Adam Bowden, Ms. Rebecca Steward, and Dr. Cavender Campbell

Description: research, career options, scholarships, math club, campus life, extracurricular activities, Greek life. A goody bag will be offered to participants.

Activity IV: Fun Math by Dr. Yelin Ou

Description: In this session, students will learn some interesting paradoxes in math, famous math conjectures, tales of math/mathematicians.

Activity V: Some Wonders Made by Mathematics by Dr. Nikolay Sirakov

Description: The speaker will explain the use of mathematical concepts in such of modern and fascinating areas like Artificial Intelligence; Machine Learning; Tracking Objects in Video; Prediction; Face Recognition; and Melanoma Diagnosis. A number of images and visual experimental results obtained by the speaker and his collaborators will be shown during the presentation.

Activity VI: Planetarium Show

Description: a title will be elected in January. Seating is limited, and admission tickets are required.