

# math news

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## KME Corner

By *Sarah Sparks, President*

Kappa Mu Epsilon, our mathematics honor society, will have its first meeting on Wednesday, September 20<sup>th</sup>, at 5:00 pm in CCIT 245. We will be discussing events and fundraising for the semester, and there will, of course, be pizza. This semester KME members will also be offering Calculus II tutoring at 4pm on Wednesdays in CCIT 221. Other officers this year are Demetrick McDonald (Vice President), Zachary Kline (Secretary), and Emma Seibert (Treasurer).

## Upcoming MATH Activities

Sept 22, 3-4	Dead Poet's Society
Sept 29, 3-4	Rockband and Board Games
Oct 06, 4-5	Dead Poet's Society
Oct 13, 3-4	Rockband and Board Games
Oct 20, 3-4	Dead Poet's Society
Oct 27, 3-4	Rockband and Board Games
Nov 03, 4-5	Dead Poet's Society
Nov 10, 3-4	Rockband and Board Games
Nov 17, 3-4	Dead Poet's Society

## Obituary

Stanford mathematics Professor Maryam Mirzakhani, the first and to-date only female winner of the Fields Medal since its inception in 1936, died Friday, July 14, after battling breast cancer since 2013; the disease spread to her liver and bones in 2016. Mirzakhani was 40 years old.

The quadrennial Fields Medal, which Mirzakhani won in 2014, is the most prestigious award in mathematics, often equated in stature with the Nobel Prize. Mirzakhani specialized in theoretical mathematics that read like a foreign language by those outside of mathematics: moduli spaces, Teichmüller theory, hyperbolic geometry, Ergodic theory, and symplectic geometry.



Math majors are recruited in many fields! One possible career path is Data Analytics. Facebook employs data scientists to help on analytics for a particular product or business at Facebook and work with product managers and engineers to translate the analysis into meaningful impact to the business. Find more amazing career opportunities for math majors at <http://mathcareers.maa.org/>.

## September Seminar

In a seminar scheduled for later this month, North Carolina State University graduate student Nicholas Fortune will answer two questions pertinent to today's mathematics faculty and educators: 1) What is inquiry (in mathematics)? and 2) Why do we use it in our classrooms? In the mathematics and mathematics education communities there are many definitions of inquiry leading to numerous and varied interpretations of what inquiry in mathematics is. He will discuss inquiry in mathematics through different lenses to boil down the important pillars of inquiry. This will include sharing examples from various undergraduate mathematics inquiry classrooms. Further, he will follow this with a research-based justification for inquiry in mathematics, by describing mathematics education research in general and specifically research in undergraduate mathematics education.

## Ancient Trig Table Explained

University of New South Wales Sydney scientists have discovered the purpose of a famous 3700-year old Babylonian clay tablet, revealing it is the world's oldest and most accurate trigonometric table, possibly used by ancient mathematical scribes to calculate how to construct palaces, temples, and canals. The new research shows the Babylonians beat the Greeks to the invention of trigonometry by more than 1000 years, and reveals an ancient mathematical sophistication that had been hidden until now. A trigonometric table allows you to use one known ratio of the sides of a right-angle triangle to determine the other two unknown ratios.

The new study by Dr. Mansfield and UNSW Associate Professor Norman Wildberger is published in *Historia Mathematica*, the official journal of the International Commission on the History of Mathematics. The tablet, which is thought to have come from the ancient Sumerian city of Larsa, has been dated to between 1822 and 1762 BC. It is now in the Rare Book and Manuscript Library at Columbia University in New York.

For more information, visit: <https://phys.org/news/2017-08-mathematical-mystery-ancient-babylonian-clay.html#jCp>.

## Food For Thought

Two people arrive in a restaurant independently. Each arrives at a random time between 5pm and 6pm, distributed uniformly (no moment in this range is any more likely for arrival than another). What is the probability they arrived within 10 minutes of each other? (HINT: Try using a little coordinate geometry.)