

# TCU Math Newsletter

Wise men talk because they have something to say; fools because they have to say something.

- Plato

## Call for Abstracts for the College of Science and Engineering Student Research Symposium (SRS)

The TCU College of Science and Engineering Research Symposium (SRS) is a relaxed forum in which students can present their work in a poster presentation. SRS provides a nice opportunity to present work and also see what other students are doing. The posters are viewed by numerous faculty, students, and visitors. SRS will take place on Friday, April 15 in Tucker Technology Center.

Any TCU undergraduate or graduate student who has been engaged in some form of research is strongly encouraged to participate. The deadline for abstract submissions is Thursday, March 24.

For more information about SRS and to submit an abstract, visit the SRS website www.srs.tcu.edu.

#### Pi Day Celebration on March 25

Pi Day, a holiday commemorating the mathematical constant  $\pi$ , is celebrated nationally on March 14 because in month/date format 3/14 matches the first digits of  $\pi$ . Because that date falls during spring break, we will be celebrating Pi Day at TCU on Friday, March 25.

TCU's Pi Day celebration will include a pizza pie eating contest, a Pinewood derby car racing competition, and throwing pies at professors. The festivities will run from around 11 am to 1 pm at Tucker Technology Center.

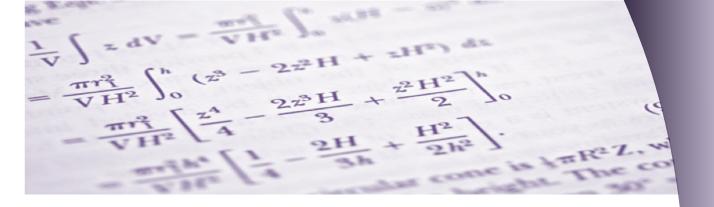
## **March Colloquium Talks**

The TCU Colloquium series will feature three speakers in March 2011. The first talk, by Professor John Neuberger of the University of North Texas, will be on Tuesday, March 8. His talk is entitled "Time Dependent Partial Differential Equations and Semigroups of Transformations: Some History and Some New Results."

On Thursday, March 10, Professor Jeff Adler of American University will present the talk "Representations and p-adic Numbers: What and Why?"

The third Colloquium talk in March will be on Friday, March 25. Professor Laura Matusevich of Texas A&M University will present the talk "Graphs, Lattice Points, and Binomial Primary Decomposition."

All of the Colloquium talks are in TUC 243 at 3:30 pm, and refreshments will be served in TUC 300 during the half hour before each talk.



## Solution to the February 2011 Problem of the Month

**Problem:** Let f be a real-valued function on the plane. Suppose that whenever A, B, and C are vertices of an equilateral triangle, f(A) + f(B) + f(C) = 0. Must f be identically 0?

**Solution:** Consider points A and B. There are points C and D such that triangle ACD and triangle BCD are equilateral. It follows that f(A) = f(B), i.e. f is constant and therefore identically O.

#### March 2011 Problem of the Month

This month's problem appears in a book of Dick Hess. Alice, Bob, and Charlie play tennis matches consisting of one set only: two of them play a set and the winner stays on the court for the next set, with the loser replaced by the player who was idle. At the end of the day Alice played 15 sets, Bob played 14 sets, and Charlie played 9 sets. Who played in the 13th set?

Students and others are invited to submit solutions to Dr. George Gilbert by e-mail (g.gilbert@tcu.edu) or hard copy (Math Dept. Office or TCU Box 298900). Correct solutions submitted by persons who are not members of the TCU math faculty will be acknowledged in the next issue of the newsletter. Note that a correct solution is an answer and a justification of its correctness. The solution to the problem will be published in the next edition of the newsletter.

Editor: Rhonda Hatcher Problem Editor: George Gilbert

Thought of the Month Editor: Robert Doran