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# ***TCU Math News Letter***

**Volume 7, Number 6 March 1999**

*I could be bounded in a nutshell and count myself a king of infinite space.*

--- William Shakespeare (Hamlet, Act II, Scene 2)

[Editor: Dr. Rhonda Hatcher](#) and [Archive of Newsletters](#)

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## **Frank Stones Research Lectureship Talk**

On Tuesday, March 23, Professor Ron Stanke of Baylor University will present a talk in the Frank Stones Research Lectureship. His talk is entitled "Norms for highest weight representations."

The talks will be given in Winton Scott Hall 145 at 4:00 p.m., and refreshments will be served in Winton Scott Hall 171 at 3:30 p.m. All TCU students, faculty, and other interested members of the community are invited to attend the lectures.

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## **Mathematics Major Invited to Join Phi Beta Kappa**

The Mathematics Department is pleased to announce that Jeff Moles has been invited to join Phi Beta Kappa, the nation's oldest honor society. Jeff is a junior mathematics major. Congratulations Jeff!

## **Summer Opportunities for Mathematics Majors**

Undergraduate mathematics students interested in summer research or study in mathematics should check out the many opportunities listed at the [Mathematical Association of America](#) web site. Follow links to STUDENTS AND STUDENT CHAPTERS and then to SUMMER OPPORTUNITIES, or go [directly](#).

Note in particular that there is a listing of REU (Research Experiences for Undergraduates) programs, many with impending deadlines. Interested students should investigate these opportunities without delay.

## **MAA Meeting**

The Annual Meeting of the Texas Section of the Mathematical Association of America will be held at Southwest Texas State University in San Marcos, Texas on April 8 through April 10, 1999. The meeting will include many talks and paper presentations that are at a level appropriate for undergraduates. Of particular interest to students are the three invited addresses on Saturday, April 10, including the talk "Coupled Oscillators and Animal Gaits" presented by Martin Golubitski of the University of Houston and "Bus Tours of the Universe and Beyond" presented by travel agent Mel Slugbate.

The meeting registration fee is waived for students. Students interested in learning more about meeting and

obtaining a registration form should see Dr. Hatcher in Winton Scott Hall 142.

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## Solution to the December 1998 Problem of the Month

**Problem:** You are blindfolded and face a large number of coins lying on a table. You cannot distinguish heads from tails in any way. You are told that 1999 of them are heads up. Show how you can divide the coins into two groups so that each group created has the same number of heads showing.

**Solution:** Slide any 1999 coins away from the pile, turning each of them over to their reverse sides. Coins that were heads become tails and coins that were tails become heads, corresponding exactly to those heads left behind in the original pile.

This month's problem was solved by undergraduate Mark Grossman.

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## Problem of the Month

The following problem was suggested by Stan Wagon in his Macalester College e-mailing. Find all positive integers  $n$  such that every positive integer whose base 10 expansion ends in  $n$  is divisible by  $n$ . (For instance, 100 is such a number because every number of the form  $100k$  is divisible by 100.)

**Students and others are invited to submit solutions to Dr. George Gilbert (Math Dept. Office or P.O. 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.**

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**The TCU Math Newsletter will be published each month during the academic year. Dr. Hatcher: Editor; Dr. Gilbert: Problem Editor; Dr. Doran: Thought of the Month Editor. Items which you would like to have included should be sent to Dr. Hatcher (Math Dept. Office or P.O. 298900).**