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# ***TCU Math News Letter***

**Volume 10, Number 4 February 2002**

*A mathematician is a machine for turning coffee into theorems.*

--- Paul Erdős

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

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## **TCU Lectureship Talks on February 5 and 19**

Professor Linda Allen of Texas Tech University will give a talk on Tuesday, February 5 as part of the 2001-2002 TCU Research Lectureship Series. She will present the talk "Mathematical Models of Epidemics" at 4:00 p.m.

The second Lectureship Series talk this month will be presented by Professor Cameron Gordon of the University of Texas at Austin. Professor Gordon will present "Classification of Knots" on Tuesday, February 19, 2002, at 4 p.m.

Both talks will be presented in Winton Scott Hall 145, and refreshments will be served in Winton Scott Hall 171 at 3:30 p.m. before each talk.

All TCU students, faculty, and other interested members of the community are invited to attend the lectures.

## **Call for Student Papers for MathFest 2002**

The Mathematical Association of America will hold its annual MathFest this year in Burlington, Vermont. The meetings will run from Thursday, August 1, 2002 to Saturday, August 3, 2002.

TCU undergraduate students who would like to present a paper at the MAA Student Paper Sessions of the MathFest should seek the nomination of a TCU faculty member. Nomination forms can be found at [www.maa.org](http://www.maa.org) under STUDENTS. Students who make paper presentations, and who are also members of an MAA Student Chapter, are eligible for partial reimbursement of travel expenses incurred while attending the meeting. The deadline for receipt of applications is June 28, 2002.

## **Undergraduate Graders Needed**

The TCU Mathematics Department still has openings for student graders of lower level mathematics courses. Undergraduates who are enrolled in or have completed a mathematics course at the Calculus I level or above are qualified to apply for the positions. All students interested in a grading position should contact Dr. Victor Belfi in Winton Scott Hall 151 or by e-mail at [v.belfi@tcu.edu](mailto:v.belfi@tcu.edu).

## Student Graders Needed for MathCounts

The middle school mathematics contest, Math Counts, conducted by the Fort Worth Chapter of the Texas Society of Professional Engineers, will be held at TCU on Saturday, February 9. Student graders are needed for the test papers. Grading will take place from about 9:00 a.m. until 12 noon. Lunch will be provided for all students who want to help with the grading, and each grader will receive a free Math Counts T-shirt. Also, donuts, coffee, and fruit will be available before the grading begins.

All TCU undergraduate and graduate students who would like to help with the grading should contact Dr. Roy Combrink in Winton Scott Hall 162 or by e-mail at [c.combrink@tcu.edu](mailto:c.combrink@tcu.edu).

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## Solution to the November 2001 Problem of the Month

**Problem:** Three poor woodcutters, stranded in the bitter winter seek shelter in an abandoned cottage. "I," said the first, "have 5 logs of wood to help keep us warm." "And I," said the second, "have 3." "Alas," said the third, "I have no wood, but I have 8 kopeks to repay you for allowing you to share your fire." How should the 8 kopeks be distributed between the first two woodcutters? (Originally published in Function.)

**Solution:** The first woodcutter should receive 7 kopeks; the second, 1. Divided 3 ways, each woodcutter's share of the fire is  $8/3$  logs. Thus, the first woodcutter provides  $7/3$  logs to the third woodcutter while the second woodcutter provides  $1/3$ . The ratio between the two is 7 to 1, so the 8 kopeks should be divided in the same ratio. The November problem was solved by math major Dustin Sitar.

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## Problem of the Month

This month's problem appeared on Dave Addis' Math 30803 final exam last fall. (He hopes you can do better than his class did.) Professor Chatty has extended office hours every weekday. Four students sign up for meetings by randomly (and independently) choosing a day to meet with her. Compute the probability that there are two days with two students signed up on each of those days.

(Remember that math majors will earn 10 points in the Bucks for Books lottery for a correct solution. For details and other ways to earn points, refer to the September 2000 Newsletter or visit the web page [www.math.tcu.edu/math/BucksForBooks.html](http://www.math.tcu.edu/math/BucksForBooks.html))

**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).**