

MSCS



Mess

Department of Mathematics, Statistics and Computer Science
St. Olaf College
Northfield, MN 55057

December 13, 2004
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This Week's Colloquium

Title: Finals
Speaker: You
Time: Wednesday, December 15, 9:00 am,
until Monday, December 20, 4:30 p.m.
Treats: Popcorn, cookies, chips, pop...
(pretty much everything) by boxes in OMH
Place: SC



Need a study break?
Come make Gingerbread
Houses with the MAA
on Tuesday, Dec. 14th
from 3-5pm in SC 184.

*Happy Finals and a Merry Christmas
from your loyal mess editors.
-TNL and PR*

Summer REU's (Research Experience for Undergraduates)

If you are a sophomore or a junior and you're trying to decide what to do with yourself next summer, why not consider applying for a summer REU in mathematics? Many colleges and universities around the country run summer programs for undergraduates who are interested in getting a taste of doing research in mathematics with other undergraduates. Students usually work in small groups supervised by a faculty member and focus on problems from a specific area of mathematics. The programs generally run for month or two and, best of all, actually pay a stipend to the students who participate. So students get paid to have a good time investigating mathematics! The deadlines for applying to most of these programs vary a bit, but are generally some time between late January and early March so it's good to start thinking about them now. To get more information about these terrific REU's, check out the NSF website: www.nsf.gov/home/crssprgm/reu and click on "Search for an REU Site" or check with Bruce Hanson in OMH 302 (e-mail: hansonb).

*Check out page 2 for more information on
select REU's...*

Last Week's Problem

This type of problem is classic. Over the recent Thanksgiving holiday there were four guests at my friend Linda's house, me, Josh, Sarah and John (names have been changed to protect the innocent). Linda had to run to the neighbor's house, so she asked the guests to take the turkey out of the oven. Upon return she found the turkey on the kitchen floor, ruined. When questioned by Linda, each guest made the following statement.

Me: "Josh did it."

Josh: "John did it."

Sarah: "I didn't do it."

John: "Josh is lying."

Assuming that exactly one guest is telling the truth, who did it?

Congratulations to the following pleasantly long list of solvers this week: **Joe Anderson '07, Kari Anderson '05, Doug Baumann '06, Zane Buxton '05, Andrew Goudzwaard '07, Brenna Greenfield '06, Carrie Manke '06, Kelly McConville '06, Robert Orme '05.**

Either Sarah is lying, or she is not. If she is telling the truth, then John is lying, and Josh is telling the truth which contradicts the fact that exactly one guest is telling the truth. Thus Sarah must be lying and she is at fault. In this case, John must be the one telling the truth and Josh and I are lying and this is consistent with our answer.

The following is a nice discussion by Robert Orme about the situation if we allow more than one person to be at fault. "This all assumes that exactly one person is responsible. Otherwise, we take our reasoning further: clearly, either Josh or John must be telling the truth. If John is, then neither Josh nor John could have done it, but you still could have. Therefore, Sarah and maybe you are responsible. If Josh is telling the truth, then Josh couldn't have done it (since you are lying), but at least Sarah and John did, and maybe you too."

Sample REU's

DIMACS REU (Rutgers University) June 6 - July 29 <http://dimacs.rutgers.edu/REU/> (DIMACS stands for Discrete Mathematics and Theoretical Computer Science)

Summer Institute (Center for Nonlinear Analysis, Carnegie Mellon University) June 21 - July 19 www.math.cmu.edu/summerinst

REU for Women

George Washington University Summer Program for Women in Mathematics (SPWM) (The George Washington University) July 2 - August 6 www2.gwu.edu/~math/spwm.html

SPWM 2005 is a five-week (July 2 to August 6, 2005) intensive program for mathematically talented undergraduate women who are completing their junior year and may be contemplating graduate study in mathematical sciences.

Sixteen women will be selected. Each will receive a travel allowance, campus room and board, and a stipend of \$1,500. Applications need to be received by us by March 1, 2005.

For further information, contact the director: Professor Murli M. Gupta (mmg@gwu.edu, 202-994-4857) or visit our web site at <http://www.gwu.edu/~math/spwm.html> Application material can be printed off our web site.

***If you would like to receive a copy of the Math Mess in your P.O. Box weekly, please e-mail Donna Brakke at brakke@stolaf.edu.

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