

# Math Mess

Department of Mathematics  
St. Olaf College  
Northfield, MN 55057

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## This Week's Mathematics Colloquium

Title: To Be or Not To Be  
Speaker: Math Dept Faculty  
Time: Tuesday, Nov 13<sup>th</sup>, 5 pm (4:30 for food)  
Place: SC 282

### This Week's Colloquium

Remember, the annual **"To Be or Not To Be"** extravaganza is today (Tuesday)—come at 4:30 p.m. for the subs and root beer floats! Members of the mathematics department faculty will discuss the math major, statistics and computer science concentrations, graduate school, summer opportunities and all sorts of other math related stuff. You will also have a chance to hear and talk with math major alums who are out in the real world and have real jobs. Festivities commence at 5pm in SC 282. Don't miss it!

### New Faces...

For those of you who have a class with her, perhaps her face is no longer new, but Julie Legler is still new to some of us and now you have the chance to get to know a little bit about her. And once you know a bit about her, you can stop by

her office in OMH 205 and let her get to know you.

Julie Legler is a native of these parts. She grew up in St. Paul, MN and attended the University of MN-St. Paul where she received her B.A. and Masters in Statistics. Professor Legler went on to teach at Concordia College. After teaching there for ten years, she and her family moved out to Washington, D.C. where she pursued her doctorate in Biostatistics at Harvard. After working at the National Institute of Health (NIH) for 5 years, she and her family decided to move back to Minnesota to be closer to their extended family.

Professor Legler now lives in Burnsville with her husband and three children, a daughter in her first year at Gustavus and two sons, ages 11 and 15. Believe it or not, Professor Legler does have interests outside of mathematics. In addition to

enjoying time with her children and extended family, she enjoys reading, theology and hiking.

Here at St. Olaf, Professor Legler is teaching Stats 110, Probability Theory, Mathematical Statistics and will be teaching the Math Practicum this Interim. She is also working on a few projects that she started while at NIH. She hopes to involve some students in this research, so if you are interested in some independent studies and/or summer research relating to statistics, here's your chance.

## MAA

If any of you are interested in helping to get this year's version of the MAA (Mathematical Association of America) off the ground, please stop by Jill Dietz's office or drop her an e-mail at <dietz>.

The MAA sponsors all kinds of social and mathematical events, from bowling with the profs to organizing career info sessions. The MAA is responsible for the annual math department t-shirt design contest, which is the highlight of the year's activities.

Please let us know if you're interested in getting things going. Time commitment is minimal.

## RAND Graduate School

The RAND Graduate School (RGS) is part of of RAND, the world's most foremost independent, non-partisan "think tank". RGS doctoral fellows take classes in advanced economics, statistics and systems analysis in addition to other seminars; there is also an "on-the-job training" component doing research at RAND. This is a four-year program which leaves you with a Ph.D. in policy analysis and the equivalent of two years of doing applied research. If you would like more information on RGS, please contact Mike Kahn.

## Go Club

The Go Club has announced regular meetings, twice a week even, at 6pm on Tuesdays, and at 7pm on Thursdays. These will be in SC130 unless they are somewhere else. Go is one of the oldest games on the planet. It has very few rules, and yet is incredibly deep - the best computer Go programs are nowhere near championship level. Drop in and check it out.

## Last Week's Solution

**Last week's problem:** A particle is moving along a straight line so that its velocity at time  $t$  is  $3t^2$ . At what time  $t$  during the interval  $0 < t < 9$ , is the velocity the same as the average velocity over the entire interval?

**Solution:** The average velocity can be found by integrating the velocity function from 0 to 9 and then dividing by 9, which all equals 81. Then, set 81 equal to the velocity, and solve for  $t$ , which turns out to be  $\text{Sqrt}(27)$ .

Solved by **Paul Tluczek, Jason Saccomano, Sam Schultz, Matthew Lafferty, Peder Hanson, Justin Seningen, Jerad Parish** and **Adam McDougall**.

## Problem of the Week

What is the maximum number of pieces into which a banana can be divided with ten straight cuts? The pieces may not be moved in between cuts. [Note: this is a mathematical banana. So, pieces can be arbitrarily small, and the curvature means something. Start with a two-dimensional version of the problem, a crescent moon. The answer to the banana problem should be more, just as the maximum number of pieces into which an orange can be cut is more than for a pizza.]

\*\*\* Please submit all solutions to Cliff Corzatt (corzatt@stolaf.edu) by noon on Friday.

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