MSCS Mess

This Week's Colloquium

Title:
   Can you see the forests through the tree?

Presenter: Adam Berliner
Date: Tuesday May 13th
Time: 1:30 pm
Location: SC 188

Abstract: The sequence 1,1,2,3,5, … is familiar to many of us as the beginning of the Fibonacci sequence. But there is a less familiar (and more interesting) sequence that begins the same way. We'll start with this sequence $p(n)$ that counts the number of partitions of an integer n. That is, the number of different ways of writing n as the sum of a non-increasing list of positive integers. Some of the most famous mathematicians over the last century have studied partitions and many properties of partitions are known, some depending on deep mathematics. However, many easy to state questions remain open.

Partitions of an integer n are just one of many partition sequences one can define. These come from trees and more generally graphs. After discussing some background material about partitions, graphs, and trees, we will talk about partitioning certain trees into different pieces called a forest partition. Can we do this so that the sizes of the pieces make all possible partitions of n? How many ways can we do this overall? As the graph grows, how quickly does the number of forest partitions grow?

Carlson Contest Results

23 students participated in this year's Carlson Math Problem Solving Contest. The top six in each category are

First Years
1) Andy Lithio - $60
2) Matt Deram - $50
2) Stefan Poikonen - $50
4) Dan Mork - $30
5 tie) Mckenzie West - $15
5 tie) JoJo Christensen - $15

Upper Class
1) Thomas McConville - $60
2) Nathan Clement - $50
3) Eric Olson - $40
4) Emily Segar - $30
5) Ben Brown - $20
6) Charles Debeck - $10

You can pick up your prize money from Donna Brakke in the Math Dept. Office. (2nd floor, OMH). If you want your copy of the contest, you can pick up your work from Prof. Smith in OMH 209.

Mathematics Position

Nova Classical Academy provides students K-8 (high school starting in 2009) with a classical education in the western tradition (www.novaclassical.org). Nova continues to be a noble endeavor within the public arena of education in today's society and culture. Our duel aim for

students, the refinement of the intellect and the perfection of moral character, is what we call our teachers to strive for professionally and personally.

Math and Logic -full time - grades 6- 8
Nova teachers Singapore math (beginning in first grade) starting with 1A/1B and continuing through 6A/6B. Following that sequence the school of logic starts a higher math sequence to include pre-algebra, algebra and geometry. The teaching assignment includes logic for the 7th and 8th grades. Nova truly needs a mathematician -- who eventually may teach Algebra II/Trig and Calculus.

Nova 2007 MCA-II Highlights for averaged grade scores for grades 3 through 8: 7th Grade - first in State in reading and math; 6th Grade - first in State in reading; all Nova grades were well above State class averages in both reading and math; all Nova grades were in the top 5 percent in reading.

Interested candidates should visit Nova's website (www.novaclassical.org) for more information regarding Nova, classical education and the school principles of classical education (click the curriculum tab, go to classical education and the click on Principles of Classical Education at Nova) and the application process (job opportunities tab).


Jokes of the week

An investment firm is hiring mathematicians. After the first round of interviews, three hopeful recent graduates - a pure mathematician, an applied mathematician, and a graduate in mathematical finance - are asked what starting salary they are expecting. The pure mathematician: "Would $30,000 be too much?" The applied mathematician: "I think $60,000 would be OK." The math finance person: "What about $300,000?" The personnel officer is flabbergasted: "Do you know that we

have a graduate in pure mathematics who is willing to do the same work for a tenth of what you are demanding!?" "Well, I thought of $135,000 for me, $135,000 for you - and $30,000 for the pure mathematician who will do the work."
                    --Submitted by Will Voorhees

A mathematician and an engineer are on desert island. They find two palm trees with one coconut each. The engineer climbs up one tree, gets the coconut, eats. The mathematician climbs up the other tree, gets the coconut, climbs the other tree and puts it there. "Now we've reduced it to a problem we know how to solve."
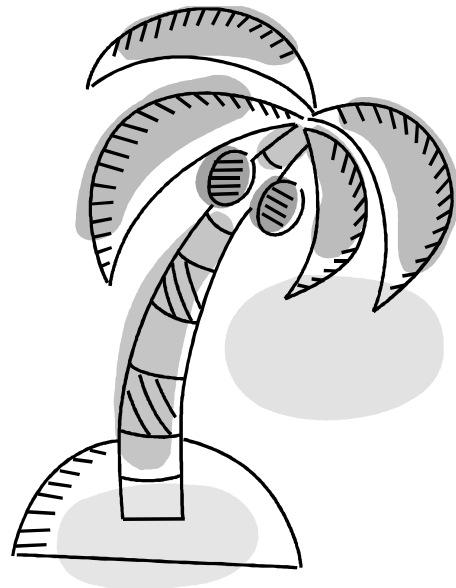
Attention seniors

Make sure you submit your contributions to the final '07-'08 MSCS Mess – The Senior Salute! Email tummers@stolaf.edu.

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If you would like to submit an article or math event to be published in the Math Mess, e-mail tummers@stolaf.edu.