

The Almagest

The bi-weekly newsletter of the Department of Mathematics and Computer Science. Your trusted source for news.

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November 26, 2012

Alma College
Alma, MI 48801

Math Colloquium

Lights Out is an electronic handheld puzzle that consists of a 5×5 array of lighted buttons. Pushing a button changes the on/off state of that button as well as all of its vertical and horizontal neighbors. The goal is to turn all the lights out. In this talk, **Dr. Robert Molina**, Professor of Mathematics at Alma College, will derive an elegant solution to this puzzle using linear algebra modulo 2. Variations of this puzzle, such as playing lights out on a graph, will also be discussed.

“Lights Out”

Presenter: **Dr. Robert Molina**

Date: **Monday, December 3rd**

Time: 4:00

Place: SAC 109

Refreshments at 3:50



The 2012 Election's Big Winner is Math

There were many winners and losers in the November 6th election, but if Smithsonian.com is correct, math might have been the biggest winner. According to a recent article in Smithsonian.com, “if math and data were running in 2012 for a starring role in politics, they won.”

The article focuses on Nate Silver, a statistician and blogger for the New York Times, who developed a proprietary model of poll aggregation and weighting that accurately predicted the results in all fifty states and predicted the popular vote to within a few tenths of a percentage point.

To read the full article, check out:

<http://blogs.smithsonianmag.com/smartnews/2012/11/the-2012-elections-big-winner-math/>

News From The Math Club

The next event sponsored by the Math Club is:

Math Club Holiday Party

Thursday, December 6th, 4-6 p.m.

Location TBA

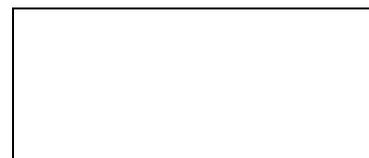
The Math Club meets **EVERY THURSDAY at 10 pm** in the Wright Hall lobby. The officers are:

Pres: **Caitlin Closs** VP: **Phil Ryskamp**

Treas: **LeeAnne Carr** Sec: **Katie Dwenger**

For Lovers of Calculus

Check out this indefinite integral!



NOW is the time to think about an REU

Have you ever thought about going to graduate school to study in mathematics or computer science? Would you like to “test the water” and see if grad school might be the right thing for you? If you’re a *junior* wrestling with these questions, then please consider applying for a summer REU (Research Experience for Undergraduates). This is a great opportunity to spend 7 or 8 weeks of the summer working on some interesting project in mathematics or computer science. And to make it even more attractive, you’ll receive a stipend of approximately **\$3000** in addition to free room and board. There are numerous REU’s dealing with a wide variety of topics. Please check out the topics and deadlines for applying at the following website: www.ams.org/employment/reu.html

Need Help?

Tutors are available to help you for the following courses at the times listed. *Please come!*

MTH 101 Monday & Wednesday
8:00 – 10:00 pm in SAC 214

MTH 112
MTH 121
MTH 122

MTH 116 Tuesday & Thursday
8:00 – 10:00 pm in SAC 214

Solution to Previous Problem

Three numbers are in arithmetic progression, three other numbers in geometric progression. Adding the corresponding terms of these two progressions successively, we obtain

85, 76, and 84

respectively, and adding all three terms in the arithmetic progression, we obtain 126. ***Find the terms of both progressions.***

Alex Hegedus and **Charlie Stack** were the only students who submitted correct solutions. There are actually two correct solutions to this problem. Alex and Charlie found solution 1. Dr. Thall and Dr. Putz found both solutions.

	Arithmetic Prog.	Geometric Prog.
Solution 1:	68, 42, 16	17, 34, 68
Solution 2:	17, 42, 67	68, 34, 17

Puzzle of the Bi-week

Your math professor, who tells the funniest jokes, has altered the next line in the famous poem, *The Night Before Christmas*. Can you figure out the humorous punchline?

'Twas the night before Christmas and all through the house, not a creature was stirring, not even a mouse. The stockings were hung by the chimney with care...

02	80	50	52	80	10	40	20	50
50	41	32	51	81	41	10	21	21
31	51	41	02	80	10	41	40	41
50	50	40	50	40	02	80	50	10
90	81							

A prize of **\$2.00** will be awarded to the **FIRST** student who submits a correct solution to Prof. Sipka.

Student assistant:	Jonathan Young
Faculty advisor:	Tim Sipka
Distribution:	Deb Smith

If you would like to submit an announcement or a short article, please send it via e-mail to Tim Sipka (sipka@alma.edu).