

The Almagest

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

Volume 5, No. 7

January 14, 2013

Alma College
Alma, MI 48801

Math Colloquia

So far we have the following math colloquia scheduled for the winter term:

- February 4th: **Dr. Will Dickinson** (GVSU) SAC 109
- February 5th: **Steve Kelly and Zach Cresswell**
- March 12th: **Samantha Kellogg**
Jon Young
- March 19th: **Megan Jurek**
Amy Kaufman
- March 26th: **Caitlin Closs**
Russell Hope
- April 2nd: **Andrew Snoblen**
- April 3rd: **Dr. Ed Burger** (Williams College)
Held in Dow L1

Senior
Presentations
are given in
SAC 109

All talks, except the Feb. 5th talk, begin at 4:00.

Important Dates for Seniors

Attention all seniors! Please be aware of the following dates.

- January 25:** Topic of your presentation is due.
- January 29:** MFAT test – 1st opportunity.
- February 6:** MFAT test – 2nd opportunity.
- March 8:** Your paper is due.
- March 12:** Presentations begin @ 4:00 and Senior dinner @ 5:30

The Major Field Achievement Test (MFAT) is a requirement for all mathematics and computer science majors; so please be sure to sign up for one of the test dates. The Math & C.S. Department will cover the cost of the test. *What a deal!*

Apply NOW for an REU

If you've ever thought about participating in a summer research experience for undergraduates (REU), then *now is the time to apply*. A summer REU is a great opportunity for you to get a glimpse of the types of research problems mathematicians and computer scientists wrestle with. In the typical REU you'll 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 **\$3500-\$4000** in addition to free room and board. There are numerous REU's dealing with a wide variety of topics. There are approximately 100 REU's in mathematics, six of which are in Michigan. Check out all of the math REU's by visiting:

www.ams.org/employment/reu.html

The six Michigan REU's along with their application deadlines, dates, and stipends are:

- Hope College** (Feb. 22), June 3 – July 26
- CMU** (Feb. 22), June 10 – August 2, \$4200
- U of M** (Mar. 18), \$4300
- Oakland Univ.** (Feb. 15) May 6 – July 5, \$3200
- MSU** (Apr. 1)
- GVSU** (Feb. 22), June 9 – August 4, \$4000

Learn More about the REU at GVSU

We've invited **Dr. Will Dickinson**, director of the summer REU program at Grand Valley State University, to give a talk on **February 4th**. He'll discuss examples of the types of mathematics projects one might study, and he'll provide lots of information about the REU program at GVSU. There will be more info in the next issue of the *Almagest*. Please make plans to attend his talk.

The Math Club

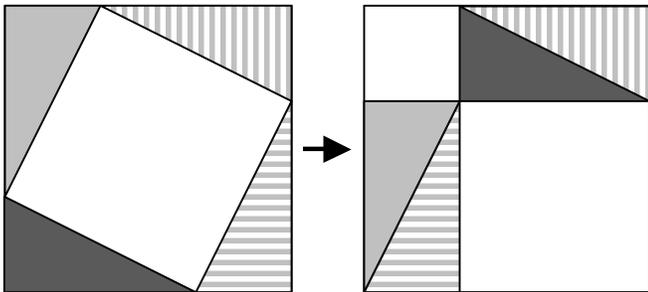
Think about joining the Alma College Math Club.

The group 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**

Hey Pythagoras

It's not always the case that a proof contains lots of words and mathematical symbols. Consider the following "proof" of the Pythagorean Theorem.



Solution to Previous Problem

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

Alex Hegedus found the pattern: reverse the digits, then use the corresponding letter.

e.g., 02 → 20 → T

The punchline is: They had been worn all winter and needed the air.

Puzzle of the Bi-week

The **Hilbert Hotel** has an *infinite* number of rooms. It's always booked solid, yet there's always a vacancy. Whenever a new guest arrives, the manager shifts the occupant of room 1 to room 2, the occupant of room 2 to room 3, and so on. That frees up room 1 for the newcomer and accommodates everyone as well (though inconveniencing them by the move).

Now suppose *infinitely* many new guests arrive, sweaty and short-tempered. **How can they all be accommodated?**

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).