## Monday's Math Colloquium

The National Security Agency (NSA) makes and breaks codes in order to protect U.S. government information systems and produce foreign signals intelligence. **Sandra Speiser**, an NSA mathematician and Alma College alumna, will present an overview of the Agency and the work performed by NSA mathematicians. An example from public key cryptography will illustrate an application of math in securing communications.

*"Mathematics and National Security"*

Presenter: Sandra Speiser
Date: **Monday, October 19th**
Time: 4:00
Place: SAC 216

**Refreshments at 3:50.**

## C.S. Students Attend Conference

Three computer science students, **Lacey Best-Rowden, Mitch Loudenbeck,** and **Charles Cook**, along with Dr. McNally, traveled to Chicago on October 9th to attend the conference of the Consortium for Computing Science in Colleges (CCSC). The trio represented Alma College in the programming competition, and all three presented posters of the research they conducted during their summer R.E.U.'s.

## Actuarial Science Info

If you missed Spencer Wideman's talk on actuarial science, he did mention a website that has lots of information on the profession. So, take a look at: www.beanactuary.org.

## Career Focus: Cryptologic Mathematician

The majority of cryptologists are computer programmers and security specialists. This job may involve any number of responsibilities. According to dictionary.com, cryptography is "the science or study of the techniques of secret writing, especially code and cipher systems [and] methods." Although some cryptologists employed in the United States today do decode secret messages, many do much more. From day to day, many track inventories, store and retrieve data, and conduct trial runs for programs and software. They also write, update, and maintain computer programs. Some cryptologists deal with security in government and corporate America. They devise and execute security measures that determine who has access to specific data files, which protects them from alteration, destruction, and disclosure. Many businesses hiring cryptologists require a bachelor's degree with emphases in mathematics and computer science, and most companies require two to four years of experience. The average salary of a cryptologist with one year of experience is $45,000. After twenty years of experience, one can expect to make over $80,000. To find out more about the life of a cryptologic mathematician, visit www.ams.org/careers/mstamp.html. You may also find it helpful to visit the website of the National Security Agency at www.nsa.gov .

## Taco Party on Thursday!

Don't forget about the departmental taco party on Thursday at Dr. Molina's house. The party starts at 5:30 p.m., but feel free to come a bit later. Dr. Molina's house is just a short walk from campus at **520 Woodworth Ave**.

## Did You Know …

Did you know that Antonio Spurs center **David Robinson** received a BS in mathematics from the U.S. Naval Academy. And did you know that singer **Art Garfunkel** holds an MA in mathematics from Columbia. He started on his Ph.D., but quit to pursue a career in music.

## Things to Check Out

The University of Nebraska is hosting the 12th annual Nebraska Conference for Women in Mathematics. This is a great opportunity to hear undergraduate women give talks about their own research. The conference is in January, but the registration deadline is December 4th. For more information, visit: www.math.unl.edu/~ncuwm.

Please take advantage of the various tutoring sessions that are available each week. These sessions provide help for students enrolled in most of our introductory math courses. We have a great group of tutors who are anxious to help you.

**MTH 099 &101** in SAC 316
　　Sunday　　　　8-9 pm
　　Mon.– Thurs.　7-9 pm

**MTH 112** in SAC 211
　　Sun.– Thurs.　8-9 pm

**MTH 116** in SAC 309
　　Sunday　　　　8-9 pm
　　Mon.– Thurs.　7-8 pm

**MTH 121/122** in SAC 207
　　Mon.– Thurs.　7-8 pm

## Fun With Pi

A fun way to memorize pi is by memorizing sentences in which the number of letters in each word corresponds to a digit in the number pi. Here are some examples provided by Mudd Math Fun Facts:

*"Wow! I made a great discovery!"*
*(3.14159…)*

*"Can I have a small container of coffee?"*
*(3.1415926…)*

## Puzzle of the Bi-week

If two opposite corners of a checkerboard are removed, can the remaining squares be covered completely and without overlap by dominoes? Assume that each domino is the size of two adjacent squares of the checkerboard.
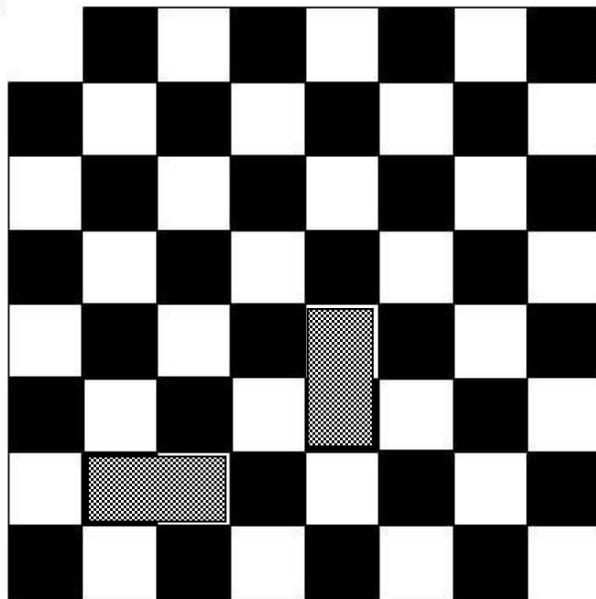


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*If you would like to submit an announcement or a short article, please send it via e-mail to Matt Mansell (11mgmans) or Tim Sipka (sipka).*