

The Almagest

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

Volume 2, No. 12

March 26, 2010

Alma College
Alma, MI 48801

Senior Math Presentations

Don't miss your chance to attend the math presentations given by our senior math majors. All presentations will be given in SAC 216 starting at 4:00 with refreshments available beforehand.

Tuesday, March 30th

4:00 **Dave Burwell**: "Law of Large Numbers"

4:30 **Kristyn Hagen**: "Peg Solitaire"

Thursday, April 1st

Honors Day

Tuesday, April 6th

4:00 **Andrea Peterson**: "Proposition VI.31"

4:30 **Sam Machuta**: "Königsberg Bridges Problem"

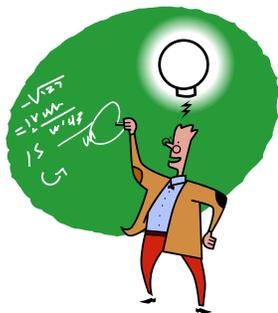
Thursday, April 8th

4:00 **Charles Cook**: "The Runge-Kutta Method"

4:30 **Brian Deakin**: "Rubik's Group"

Your attendance would be greatly appreciated.

Need Help?



MATH HELP CENTER

Mon, Tues, & Thur

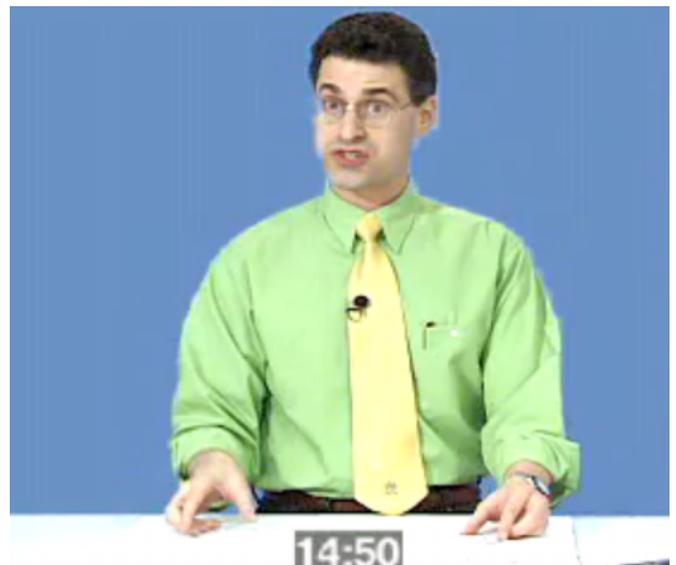
7 – 10 pm

SAC 309

Calculus in 20 Minutes

Would you like a quick review of the topics in calculus I (Math 121)? Then you'll not want to miss Ed Burger's humorous and helpful video presentation. Check it out on youtube:

www.youtube.com/watch?v=EX_is9LzFSY



More Pi

The last issue of the *Almagest* contained a small slice of π . Unfortunately, that small slice contained a rather large mistake, which was pointed out by first-year math major **Stephen Sorensen**. So, let's ask Maple to approximate π . Here's π expressed correctly (I hope) to one hundred decimal places.

3.1415926535897932384626433
83279502884197169399375105
82097494459230781640628620
89986280348253421170680

Famous Problem Solved

A reclusive Russian genius is in deep thought about whether he'll accept the \$1 million he won for cracking one of the world's most difficult math problems.



The Clay Mathematics Institute of Cambridge, Mass., announced last week that **Grigoriy Perelman** of St. Petersburg, Russia, had won the first Millennium Prize for solving the **Poincaré Conjecture**.

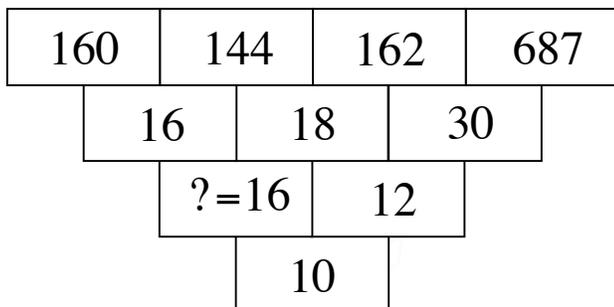
The problem, first posed in 1904 by the French mathematician Henri Poincaré, is about the geometry of three-dimensional shapes. Poincaré proposed a test for recognizing when a shape is a three-dimensional sphere, the most perfect and simplest of all shapes.

While many others tried and failed, Perelman, 43, proved that the conjecture was correct, relying on an existing theory and solving the problem with his own ideas.

The Millennium Prize, established in 2000 by the independent institute, recognizes outstanding intellectual achievement.

Solution to the Last Problem

The numbers in the diagram below follow a certain rule. Find the number that belongs in the box containing the question mark.



Adding is the rule we must follow! Notice that each of the entries, 16, 18, 30, and 12, is the SUM of the DIGITS of the two numbers directly above them. For instance, $30 = 1 + 6 + 2 + 6 + 8 + 7$. That means $? = 1 + 6 + 1 + 8 = 16$.

Problem of the Bi-Week

The following problem appeared in the *Parade* magazine on December 13, 2009.

The following are the first letters of six words:

l, w, s, p, c, b.

If the sixth word is "book," what are the first five words?

The first student to submit a correct solution to Professor Sipka will receive a small (and I mean very small) prize.

Student assistant:	Matt Mansell
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 Matt Mansell (*11mgmans*) or Tim Sipka (*sipka*).