The Almagest

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

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Alma College
Alma, MI 48801

Mathematics Colloquium

Are you wondering about what you are going to do with an undergraduate degree in mathematics? Are you looking for an exciting and challenging career? Have you thought about teaching? There are many opportunities available in education, even if you are not a mathematics teaching major. In this talk, **Megan Gibson**, currently an adjunct at Ferris State and a 2007 Alma College alumna, will share her experiences teaching in New York City with a program called ***Math for America***. She will discuss some of the programs for college graduates interested in teaching and the benefits that these programs offer.

Math in the BIG Apple

Presenter: ***Megan Gibson***
Date: **Monday, February 20th**
Time: 4:00
Place: SAC 109

Refreshments at 3:50.

Important Dates for Seniors

February 21: MFAT 5-7 pm
March 9: Your paper is due.
March 13: Presentations begin @ 4:00 and Senior dinner @ 5:30

Visit the Math Help Center

For MTH 113, 121, & 122:

Monday through Thursday: 7-10 pm in SAC 216

For MTH 116: Thursday: 7-10 pm in SAC 213

Focus on Faculty: Professor Tim Sipka

The last, but not least, member of the Math and Computer Science Department is the seasoned veteran, Professor Tim Sipka. Professor Sipka came to Alma College in 1979, making him the longest working professor in the department, though he prefers to be known as the "old fart." He grew up thirty miles south of Cleveland and went to Anderson College in Indiana where he double majored in mathematics and computer science. After teaching high school for a year, he went to Western Michigan University and received master's degrees in both mathematics and statistics. Professor Sipka had a job offer from Ford, but instead took the job at Alma because he knew teaching was his calling. During his first year at Alma, he began taking classes at CMU and received (several years later) a third master's in computer science.

When he is not talking about math, Professor Sipka enjoys sports, landscaping and gardening, anything about cars, running (usually with his wife of 36 years), and watching goofy movies like Ace Ventura and Anchorman. He has three sons, none of whom showed any interest in following in their father's mathematical footsteps. Professor Sipka is passionate about teaching and enjoys promoting mathematics on our campus, which is why he started the *Almagest* four years ago. He also enjoys bringing speakers to campus.

Jon Young

Michigan Undergrad Math Conference

The 14th Annual Michigan Undergraduate Mathematics Conference (MUMC) will be held on **Saturday, March 3rd**, at Siena Heights University. The sponsors are hoping that the spring conference date will allow students more time to put together a presentation or poster. The meeting will give undergraduate students the opportunity to present results of their projects and research, and to listen to topics that are of interest to other undergraduate students in our region. *Any topic* in undergraduate mathematics that is likely to be of interest to other undergraduate mathematics students is appropriate, be it in history, education, research, or anything between. We are scheduling the talks for 15 minutes each with five minutes between talks.

A Mathematical Valentine's Day

If you're looking for a good book to read in this season of love, then consider ***The Dot and the Line: A Romance in Lower Mathematics***. Written and illustrated by Norton Juster in 1963, the book tells the story of a straight line who falls madly in love with a dot. But the dot, finding the line to be stiff, dull, and conventional, turns her affections toward a wild and free-spirited squiggle. Unable to fall out of love, the line decides to do whatever it takes to regain the dot's affection and manages to bend. To find out the rest of the story, check out the book in our library. PS3560.U8 DC 1991

Solution to Previous Problem

Find the sum

$$1\times1! + 2\times2! + 3\times3! + \ldots + 100\times100!$$

Solving the problem for the sheer thrill of it and declining any prize, **Provost Michael Selmon** was the first to submit a correct solution. He writes:

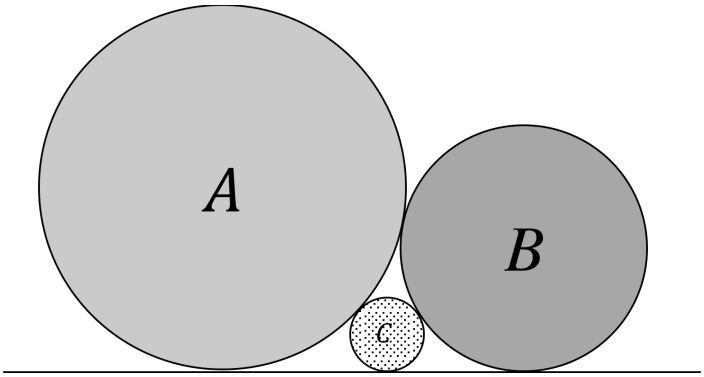
The sum is 101!-1 because

$$\sum_{n=1}^{100} n\cdot n! = \sum_{n=1}^{100}\left([n+1]-1\right)\cdot n! = \sum_{n=1}^{100}\left((n+1)!-n!\right) = 101!-1.$$

The last step works because the series "telescopes," with the 2! generated when $n=1$ cancelled by the -2! generated when $n=2$, etc.

Problem of the Bi-Week

The three circles drawn below are all tangent to each other and tangent to the line. The radius of circle *A* is *a*, of circle *B* is *b*, and of circle *C* is *c*. What is *c* as a function of *a* and *b*? That is, express the radius *c* in terms of the radii *a* and *b*.



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).