

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

Monday's Math Colloquium

Would you like to learn about the next big thing long before it is available in stores? The Nielsen Company is the largest market research provider in the world, and each year it tests thousands of new product ideas and helps manufacturers launch products with the best possibility of in-market success. **Allison (Topham) Fitzenreiter**, Manager of Diagnostic Consulting at Nielsen and an Alma College alumna, will describe how mathematics can be used in a career in market research. *Don't miss it!*



“Math and Market Research: Shaping the Products of Tomorrow”

Presenter: Allison Fitzenreiter
Date: **Monday, November 16th**
Time: 4:00
Place: SAC 216

Refreshments at 3:50.

U.S. Census Bureau Job Opportunities

This is a big year at the U.S. Census Bureau. If you're willing to relocate to the Washington, DC area, there are several short- and long-term job opportunities. Candidates are required to have completed 24 semester hours of mathematics and statistics of which at least 12 hours must be in higher level mathematics courses and 6 hours must be in (calculus-based) statistics, and all applicants must be U.S. citizens. For more information visit: www.census.gov.

Career Focus: Electrical Engineer

Electrical engineering is a field that deals primarily with the study and application of electricity, electronics, and electromagnetism. Electrical engineers spend a lot of time researching and writing technical papers, putting together proposals for projects and funding, programming, and communicating with colleagues to learn about new topics. Often times they have a huge variety in their day-to-day schedule, including traveling to meet with cooperating companies and customers. Electrical engineers typically possess a bachelor's degree with a major focus on mathematics, computer science, physics, project management, and specific electrical engineering topics. Many acquire a Bachelor of Engineering, which Alma College does not offer. If you are interested in engineering, contact Dr. Cameron Reed about the three-two or four-two engineering programs. Electrical engineers earn on average \$55,000 a year when they graduate. After several years of experience, they may earn as much as \$116,000 according to www.payscale.com. If you would like more information about electrical engineering, visit: <http://www.bls.gov/k12/math02.htm>

Another Shameless Plug for Math 117

If you've not yet taken Linear Algebra (MTH 310), then I'd like you to consider taking Math 117 in the winter term. This is a 2-credit course in matrices and linear programming that provides an excellent foundation for MTH 310, a course that's required for the major.

Did I mention that MTH 117 is a 7-week course? It begins on January 11th and ends on February 26th.

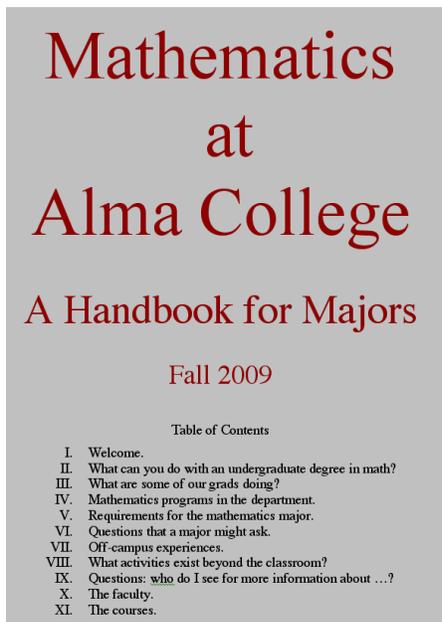
Top Ten Jobs for Math Whizzes

CareerBuilder.com recently listed the following as the top ten math jobs. To read the full article, visit: www.cnn.com/2009/LIVING/10/26/cb.ten.math.jobs/index.html.

1. Actuary
2. Cost estimator
3. Economist
4. Electrical engineer
5. Physicist
6. Market researcher
7. Mathematician
8. Statistician
9. Surveyor
10. Mathematical science teacher, post-secondary

Do You Have Your Handbook?

Don't go through life as an Alma College math major without a copy of the math handbook! This eight-page document holds the answers to every question you could possibly ask. You can get your copy from any mathematics professor.

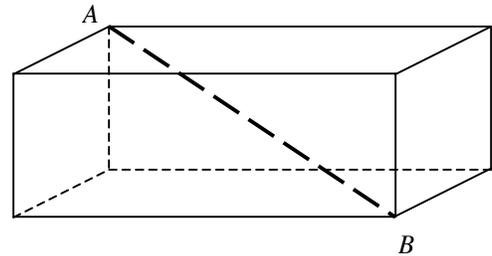


Answer to Last Puzzle

Matt Mansell received the prize for his correct solution to our last puzzle. Recall that Dr. Molina rode his bike to a particular place at an average speed of 20 mph, but he averaged only 10 mph on the return trip. His average speed for the round trip was not 15 mph; it was $13\frac{1}{3}$ mph.

Puzzle of the Bi-week

You are given three identical bricks and a sufficiently long ruler. Can you measure the length of the body diagonal of one brick without using any other materials or any formulas such as the Pythagorean Theorem?



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).