

Augarithms



Vol. 17, No.1

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September 10, 2003

Colloquium Series Dates for Fall 2003

Colloquia are held on Wednesdays from 3:40 to 4:40 p.m. in Science 108. Except for the names of some of the speakers, here is the schedule of dates for the 2003-2004 academic year:

| | |
|----------|-------------------------------------------|
| Sept. 10 | Joan Huchinson, Macalester College |
| Sept. 24 | Dan Wolf, Kailash Thapa, Augsburg College |
| Oct. 8 | TBA |
| Oct. 22 | Ioanna Mavrea, Augsburg College |
| Nov. 5 | TBA |
| Nov. 19 | TBA |
| Dec. 3 | TBA |

This week's speaker

Our first speaker is Macalester's Professor Joan Huchinson. Here is some information about her



Joan Huchinson

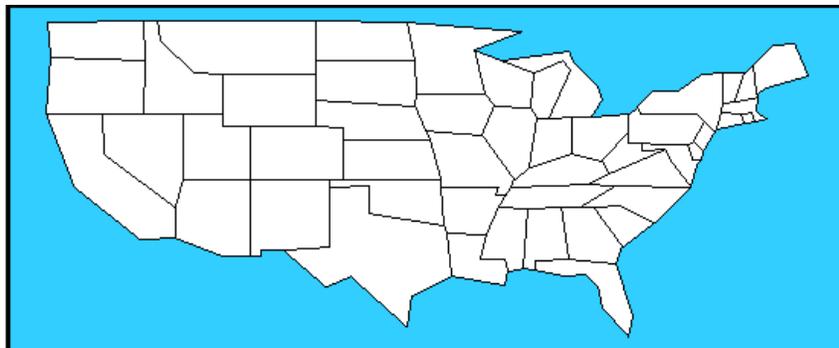
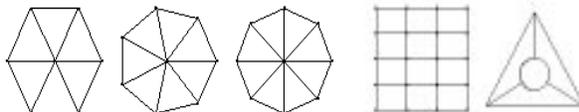
talk: **Which maps (and graphs) need only two or three colors?**

The famous 4-color theorem says that every planar map can be 4-colored; that is, one of four colors can be assigned to each region so that two regions that share an edge receive different

colors. We ask instead which planar maps can be colored with only two or three colors.

To warm up, try coloring each of the maps below with two colors. If you can't color with just two, try using three.

(Don't bother to color the exterior, infinite region.)



Puzzle & Problem

Problem of the week:

The 'sock' problem of volume 16, number 11 was solved by **Hung Nguyen** and **Dave Fransen**. And here is this season's first problem:

Can there be 1,000,000 consecutive composite (i.e., non-prime) numbers? Can you generalize your result in some way?

Puzzle of the week:

Distinct solutions, $95,742/10,638 = 97,524/10,836 = 9$, to the 'fractional form' problem, of volume 16, number 11 were found by **Hung Nguyen** and **Dave Fransen**. And here is this season's first puzzle:

Place the integers 1, 2, 3, ..., 15, one per box, with no repeats, into the 15 boxes below so that the sum of any two adjacent numbers is always a perfect square.



Send your solutions to the editor at kaminsky@augsborg.edu, or drop them in the *Puzzles & Problems* box just inside the math suite, SCI 137.

Augarithms is available on-line at augsborg.edu/math/augarithms/. Click on the date you want to see.

Mathcartoon is a website of old and new math and other cartoons by your editor. Visit at mathcartoons.com, and let us know what you think.

Goings on around the department

Tracy Bibelnicks and **Matt Haines** participated in the MAA:PREP workshop "Active Learning Approaches to Teaching Mathematics Content Courses for Elementary and Middle-School Teachers". Tracy and Matt will incorporate ideas from the workshop into the revised courses for elementary education majors not specializing in mathematics.

Nick Coult spent the summer working on some interesting computational mathematics problems with Augsburg students Dan Wolf and Kailash Thapa. I also decided that in addition to working long hours as a professor, it would be a good idea to buy a house that needs a lot of work and move in to it four days before school starts.

Su Dorée was on sabbatical last spring writing a text on Applied Algebra with coauthor Mathew Foss of North Hennepin Community College and Augsburg's Weekend College. Plans are to class-test the book next fall and have it published. Despite having "too many" students (81 in all) this fall, Su is thrilled to be back in the classroom and working with students. Stop by and say hello.

Matt Haines (see **Tracy Bibelnicks**, above)

Ken Kaminsky attended the Rocky Mountain Mathematica® Workshop July 7 - 12 in Frisco, Colorado. He will incorporate some of what he learned there into Mathematica® Labs for his multivariable calculus course. His book, *Financial Literacy: Introduction to the Mathematics of Interest, Annuities, and Insurance*, was published in July by University Press of America.

Ioanna Mavrea is visiting Augsburg's Mathematics Department for the current academic year, replacing **Rebekah Dupont**, who is on sabbatical leave. Ioanna is working on her dissertation in combinatorics and model theory at the University of Connecticut, under the direction of Professor Jim Schmerl.

Unbounded Meeting

Come provide input in this year's output of the Augsburg Math Club, Unbounded, and join the festivities as we celebrate the birthday of Charles Peirce (who, coincidentally, worked on the four-color problem)! Wednesday, September 10, 2003, 4:40 p.m. - 5:30 p.m. (directly after the math colloquium) in Science 108

Close enough?

You know those on line translators, where you put in text in one language and have it translated into another? Well, I submitted the following test letter to one of those sites. I had the site translate it into one language, and then had the result translated back into English. Is the technology ready yet? You be the judge. Here is the letter:

To the Human Resources Department:

When I saw your ad in the Tribune on September 8, I knew right away that I was just the man you were looking for. I am a 29 year-old guy with a bright outlook on life, and who gets along very well with others. I am also a very convincing speaker, which is a desirable trait for a salesman.

In my career I have sold cars, farm machinery, books, and, for a time, drugs. This last item landed me in prison for a couple of years. Well, that is past me now. I hope to hear from you very soon.

September 10, 2003

Louis Carcel
Lewisburg Federal Penitentiary
Lewisburg, Pennsylvania

And, here is the translation of the translation (no kidding):

To human the operational department

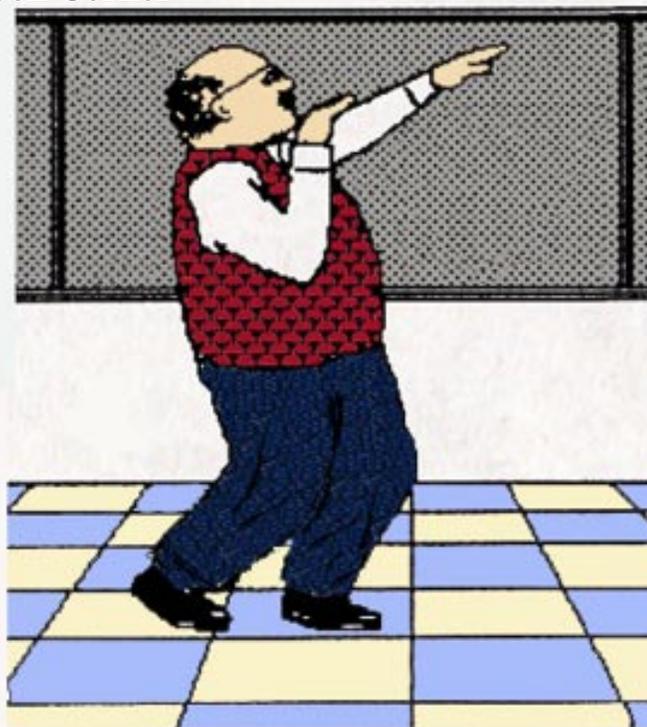
Of the bottom as I their warning in grandstand of September the 8 considered, I knew that the man was right, that immediately you looked for. I am 29 an annual crack with a shining occasion for the life, and who maintains others along with very good. I am also the loudspeaker I convince much, that it is a desirable characteristic for a salesman.

In my race I sold the cars, machinery of the farm, books and during a time, drugs. This last individual part landed to me in the prison for a pair of years. Good, now it is behind me. I hope to hear speak in a moment of you.

September 10, 2003

Louis Carcel
Lewisburg Penitentiary
Lewisburg, Pennsylvania

Cartoon Corner



It came to Professor Fogelfroe in a dream--how to teach limits through interpretive dance.