

Augarithms



Vol. 17, No.8

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January 21, 2004

Colloquium Series Dates for Spring 2004

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:

Jan.	21	Ioanna Mavrea, Augsburg College
Feb.	4	TBA
Feb.	18	TBA
Mar.	3	TBA
Mar.	31	Augsburg Students
Apr.	14	Augsburg Students

Puzzle & Problem

We had a few more solutions to the puzzle of vol. 17, no. 6. The solvers were Augsburg's **Jennifer Hook, Mike Stoinski, Kim Calabrese, Ellen Waldow**, and **Stephen Nelson** of Thrivent Financial for Lutherans. Correct solvers to the puzzle of volume 17, no. 7 were Augsburg's **Mike Stoinski, Jen Hook, Kasey Mathers, Angela Bruns, Eilidh, Reyelts, Emily Crook, Tristin Mittelsteadt, Katie Kelsey, Amy Blakstad, Lindsey Cowen, Kao Her, Angela Bergeson, Demond Fondren, Andy Held, Nora Austin, Kasi Clauson, Khoa Nguyen, Andy Matzke, Taylor Pagel, Michael Starner, Ryan Nevin, Kristin Olson, Crystal Creighton, Becky Erickson, Steve Zaffke, Abraham Dominguez, Pa Kou Yang, Abbey Payeur, Pat Boyd, Tod Carlson, and Brent Lofgren** ('88) of NOAA/Great Lakes Environmental Lab. Here is this week's puzzle:

Menu

Soupe.....	\$8.00
Fruit.....	\$9.50
Poulet.....	\$10.50
Fromages.....	\$15.50
Café.....	\$7.00
Crêpes.....	\$12.00

Chef Pierre has an unusual system for pricing items on his menu (See menu at left). Deduce Chef Pierre's price for **Bouillabaisse**?

Correct solvers to the problem of vol. 17, no. 7 were **Chrissy Piram**, and **Brent Lofgren** ('88). Here is this week's problem:

You have three identical bricks and a ruler. Can you find the length of the brick's diagonal with the ruler, but *without* using any formula?

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

This week's colloquium...



Ioanna Mavrea

The Augsburg math faculty's newest member, **Ioanna Mavrea**, will present this week's colloquium. Here are the title and a

brief description.

"The Forty Thieves and other conundrums"

Interested in pursuing a lucrative career in piracy after graduation but worried about keeping your head? If so, come learn about a young thief's dilemma and the problem solving method that George Polya called heuristic. The purpose of this talk is to illustrate elements of this method through a selection of problems from Recreational Mathematics and Logic Puzzles.

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

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Mathematical Proofs

And now for the third installment in our series of mathematical “proofs” compiled in the May 1961 edition of *OPUS*, by Joel E. Cohen. In the last two issues we have proven the following:

Lemma 1: All horses are the same color.

Theorem 1: Every horse has an infinite number of legs.

This week we will prove:

Corollary 1: Everything is the same color.

Proof: The proof of Lemma 1 does not depend at all on the nature of the object under consideration. The predicate of the antecedent of the universally-quantified conditional ‘For all x , if x is a horse, then x is the same color,’ namely ‘is a horse’ may be generalized to ‘is anything’ without affecting the validity of the proof; hence, ‘for all x , if x is anything, x is the same color.’

In the next issue we will prove the corollary: ‘everything is white.’ Why don’t you try to prove this yourself?

Cartoon Corner



Professor Fogelfroe has his way of finding out if his students are paying attention.

Mathematician Biography-Yuri Linnik (1915-1972)



Yuri Linnik

Yuri Linnik was born January 21, 1915 in Belaya Tserkov, Ukraine. After studying at secondary school Yuri Linnik worked as a laboratory assistant for a year in 1931. Then he entered Leningrad University (St Petersburg before 1914 and now St Petersburg again) to study mathematics and theoretical physics. He graduated in 1938, obtaining a doctorate there in 1940. In the same year he joined the Leningrad branch of the Steklov Institute for Mathematics.

From 1944 Linnik was professor of mathematics at Leningrad University in addition to his position in the Steklov Institute. He organised the chair of probability theory there and founded the Leningrad school of probability and mathematical statistics.

His main research topics were number theory, probability theory and mathematical statistics. He introduced ergodic methods into number theory in his first work. In a 1941 paper he introduced the large sieve method in number theory. In 1950 he introduced the ideas of probability into number theory and introduced the dispersion method in number theory.

Later Linnik made major contributions to probability with his work on limit theorems and was the first to use powerful techniques from analysis in mathematical statistics. He

solved the Behrens-Fisher problem and many other difficult problems of mathematical statistics.

Linnik wrote several important texts including *Characterisation Problems in Mathematical Statistics*.

Linnik was President of the Moscow Mathematical Society for many years. He was honoured by the national mathematical society of Sweden and was awarded an honorary degree from Paris. He was elected to the USSR Academy of Sciences in 1964. He died June 30, 1972 in Leningrad.

Article by: J J O'Connor and E F Robertson