

# Augarithms



vol 19.6

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November 30, 2005

*The new fall schedule is revealed...*

## Mathematics Colloquium Series

Unless otherwise indicated, colloquia are held Wednesdays from 3:40 - 4:40. Refreshments are provided.

Sept.	14	Kenneth Kaminsky, Augsburg College
	28	Stephen Willson, Iowa State University
Oct.	12	Juan Pablo Trelles, University of Minnesota
	26	Blake Boursaw, Augsburg College
Nov.	9	Jennifer Geis, Augsburg College
	→ 30	Sayra Smith, Richard Garnett & Julie Falbo.*

## Problem of the week...

Consider all quadratic equations of the form

$$x^2 + px + q = 0,$$

where  $-1 \leq p \leq 1$ ,  $-1 \leq q \leq 1$ , and  $p$  and  $q$  are independent of one another. Find all possible values of the real roots of these equations.

Send solutions to the editor at [kaminsky@augsborg.edu](mailto:kaminsky@augsborg.edu), or slip them under his door at

## This week's colloquium

### Service Opportunities for Students

**Julie Falbo** is an alumna of Augsburg College. She is the Volunteer Coordinator at the Minnesota Internship Center Charter School. Her school serves primarily low-income high school students in north Minneapolis.



**Richard Garnett** is an Augsburg double major in computer science and mathematics. He tutors at Trinity Lutheran Church for Safe Place, an afternoon program for the Cedar Riverside neighborhood.



**Sayra Smith** is a recent graduate of Augsburg with a major in mathematics. She is currently tutoring and mentoring high school students at Roosevelt high school through City Of Lakes Americorps.



They will be joining us this week for our final colloquium of the semester. They will share their experiences with us and tell us about opportunities for our students to serve.

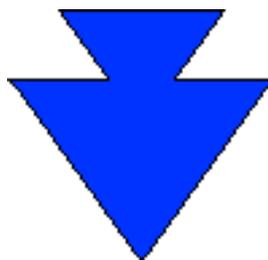
The public is welcome.

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## Puzzle of the week...

We received correct solutions to the puzzle (with the 12 dots) of vol. 19.5 from **Richard Garnett, Chelsea Willett, Dr. Bahr, Jonathan Pierpont, and Michael Janas** (of Centennial High School). Here are the last puzzles of 2005:\*

- Among the numbers 1, 2, 3, . . . , 100, which digit appears most frequently? Which digit appears least frequently?
- Make four copies of the arrow below. Make a cutout of each arrow and arrange the four so that they form five arrows.



Send solutions to the editor at [kaminsky@augsborg.edu](mailto:kaminsky@augsborg.edu), put them in the Puzzles & Problems box near the department printer, or slip them under his door at Science Hall 137E.

Source: Giant Book of Challenging Thinking Puzzles by Michael A. DiSpezio

## Augarithms

The bi-weekly newsletter of the  
Department of Mathematics at Augsburg College.

Editor.....Ken Kaminsky <[kaminsky@augsborg.edu](mailto:kaminsky@augsborg.edu)>