Can You Help Bring the Konhauser Pizza Back to Carleton?

On Saturday, February 27, the University of St. Thomas in St. Paul will host the 18th annual Konhauser Memorial Problemfest, which is named after the late Macalester professor and legendary problem poser Joe Konhauser. In this contest teams of up to three students get three hours (9 am to noon) to work together on a set of ten challenging and intriguing math problems. Then the participants have lunch together while the solutions are graded, and the results are announced right after lunch. The winning team gets to take the “pizza trophy” home to their college for the year.

Teams from Carleton won this contest every year from 2001 to 2006, but teams from St. Olaf and Gustavus have won for the past three years. Needless to say, it would be great to bring the trophy back to Carleton this year. Three people can sign up as a team, but individuals are also welcome to express interest, and we might be able to help you find teammates.

Saturday, February 27
The University of St. Thomas
Contact Mark Krusemeyer or Eric Egge

Want to Practice for the Konhauser?

If you would like some practice with past Konhauser problems, do join the problem solving group, which meets on Wednesdays, 4:30-6 pm, in CMC 328.

Thinking of Being a Mathematics Major?

Join current majors, faculty and staff for a snack Friday, February 12 in CMC 206, 3:30 pm. This is the perfect opportunity for you to ask any questions you might have about majoring in mathematics from the people who know best!

Job Opportunity for Graduating Math Majors

Carleton College welcomes applications for the position of Investment Operations Analyst. This is a fulltime, benefits eligible, exempt position that will work from the Carleton College Investment Office located in Minneapolis, MN. The salary range for this position is $40,000-$50,000 per year. If interested, please send a letter of interest (including where you learned about this position), résumé, and contact information for three references complete with address, email, and phone numbers to Carleton College, Human Resources. For more information go to: http://go.carleton.edu/jobs
Math Joke of the Week:
Q: Why did the chicken cross the Moebius strip?
A: To get to the other... er, um...

This Week in the Tour
This week's Tour of Math talk (3:30 PM, February 5, CMC 206) will feature Helen Wong speaking on "How Not To Braid A Knot". So are you going? If not, why not?

Mathematics in the News
Or, at least in the Opinions section. Steven Strogats, professor of applied mathematics at Cornell University, is starting a weekly column on “Math from basic to baffling.” The first installment “From Fish to Infinity” can be found here: http://opinionator.blogs.nytimes.com/2010/01/31/from-fish-to-infinity/

Click This!

Problems of the Week
1. A positive integer (written, as usual, in base 10 ) is called a palindrome if it reads the same when its digits are reversed. For example, 6, 494, and 237732 are all palindromes; most, if not all, readers of this Gazette have experienced two palindromic years in their lifetime (1991 and 2002 ) and are not likely to see another.
   Note that the two successive palindromes 1991, 2002 are 11 apart while the two successive palindromes 99, 101 are 2 apart. In general, call a positive integer (such as 2 or 11 ) a p-difference if it is the difference of two successive palindromes. Finally, here’s the problem: Find the sum of the reciprocals of all p-differences.

2. Let ABCD be a tetrahedron (in 3-space) such that AB is perpendicular to CD and AC is perpendicular to BD.
   a) Show that the four altitudes of the tetrahedron go through one point. (An altitude is a line through a vertex which is perpendicular to the opposite face.)
   b) Show that BC is perpendicular to AD.

A nice solution to last week's second problem arrived by e-mail from Martin Bobb, hopefully '14 (he's a prospective student). That's the good news. (You can guess the bad news; presumably people have been busy with midterms and such.) Meanwhile, my own solutions to the problems from the first two weeks of the term have been posted in the hallway outside the department office (CMC 217).

Have a good midterm break; why not tackle a problem or two?

- Mark Krusemeyer