This Week’s Colloquium

Title: The Full Monty Hall
Presenter: Brian Hayes
Date: Tuesday November 11th
Time: 4:00 pm
Location: RNS 310

Please note the unusual time and place!

About the speaker: Brian Hayes is an author, essayist, and columnist for *American Scientist*; a collection of his essays, titled *Group Theory in the Bedroom, and Other Mathematical Diversions* was published in April.

About the talk: The title alludes not to a once-popular move, but rather to the famous three-door puzzle on the TV show *Let's Make a Deal*: Players were invited to choose from among three doors, one of which hides a car and the other two goats. The host, Monty Hall, would then reveal one of the goats and invite the player to switch doors. Should the player switch? What do you think? Why? The matter became a hot topic of popular debate in the 1990s, sometimes pitting professionals against each other. For more on the Monty Hall problem, see [http://en.wikipedia.org/wiki/Monty_Hall_problem](http://en.wikipedia.org/wiki/Monty_Hall_problem).

The talk itself will focus less on the now-well-understood Monty Hall problem and more on how we persuade ourselves and others that mathematical results are true, and what can happen when persuasion fails.

Friday Research Seminars

This Friday (Nov 7), Alex Woo will be giving a talk on “Which Schubert Varieties are (local) complete intersections” at 3:30 in RNS 210. He will talk about the open research problem in the title. Roughly speaking, it asks if certain specific geometric objects can be defined by a "small" number of equations. This Friday, he will explain all the words in the title (except the one in parentheses). There will be a follow up talk next week, November 14, at the same time and location where he will explain the problem in terms that can be understood by anyone who has seen a determinant. Students are encouraged to come.

Ever Thought of Teaching Math?

Are you a junior or senior mathematics major who hopes to teach high school level mathematics in Teach for America, Peace Corps, AmeriCorps, or other service projects, or who plans to go to graduate school in mathematics and wants to prepare for teaching as a Teaching Assistant? Or, are you planning to get a mathematics teaching license through a
graduate school program after you graduate? Then Education 350: Teaching of Mathematics may just be the course for you. In this course, students will act as a "community of scholars" to examine current issues and trends in mathematics education. You will learn strategies to engage your own future students in active mathematical investigation, and to use appropriate technology and other mathematical tools to emphasizing communication, problem solving, reasoning and mathematical connections in your teaching.

Education 350 is offered during Spring Semester and is taken primarily by students completing the mathematics education program through St. Olaf. However, it is also open "with permission of instructor" to qualified mathematics students who are hoping to teach in non-licensed situations. Contact instructor Martha Wallace (wallace@stolaf.edu) for more information.

**Problem of the Week**

Let \( n \geq 3 \) points be given in the plane. Prove that three of them form an angle which is at most \( \pi/n \).

Solutions to last week’s problem are posted at SC 222. Send your solution to this week’s problem to Prof. Gower (SC 222, gower@stolaf.edu) by Friday, November 14, 2008.