Department of Mathematics March 2, 2007

UNDERGRADUATE MATHEMATICS SEMINAR

Today, Friday March 2nd there will be a special undergraduate seminar, starting at 4:15 with refreshments in Bailey 204, the Math Common Room, and then moving across the hallway to Bailey 201.

The talk will be delivered by ***Professor Gideon Maschler*** from Emory University in Atlanta, GA, who is visiting Professor Tønnesen-Friedman.

TITLE: On Surface Geometry

ABSTRACT: In this talk we will explore various classical notions associated with surface geometry. One typical such notion is the curvature of a surface, invented by Gauss in the late 19th century, along with the basic distinction between intrinsic and extrinsic geometry. Much of this talk could be understood intuitively, although we will also have occasion to use multivariable calculus.

Biographical sketch: Professor Maschler received his Ph.D. in mathematics from The State University of New York at Stony Brook in 1997. Before going to Emory University, he spent time at the Landau Center, Institute of Mathematics at Hebrew University of Jerusalem, The Ohio State University, the Max Planck Institute in Bonn, and the University of Toronto. His research interests include complex differential geometry, and special structures on manifolds.

Do You Want to Win the Publisher's Clearinghouse Sweepstakes?

In the January 2007 issue of The College Mathematics Journal, available for you to read in the Math Common Room (Bailey 204), there is an interesting article by Michael Ecker, a math professor at Pennsylvania State University's Wilkes-Barre campus, entitled "Maximizing the Probability of a Big Sweepstakes Win". In it, he describes how some sweepstakes choose the winner and discusses the strategical implications for participants. It is a fun read! Below is the introduction:

"How should you time your mail-in entries to a sweepstakes in order to maximize your probability of winning the grand prize?"

"Sweepstakes are a popular kind of prize contest having no skill component. The top prize is typically a vacation giveaway or cash, ranging from a few thousand dollars to several million dollars. You enter by filling out an entry form with your name and address. Multiple entries are usually permitted, which increases your chance of winning, but each entry must be mailed individually, which increases your cost. The winner of the grand prize is selected by a random drawing. The interesting part is how this is done, as it is not quite as simple as that sounds. (Moreover, some sponsors now allow online entries as well as mail-in entries. However, we will consider only postal submissions here.)"

Sound interesting? Take a break from your studies and read the article!

Hey, junior math majors! Maybe you could develop this into a senior thesis project…

Resources for Students

Do you have any ideas for future newsletters?

E-Mail: mailto:friedmap@union.edu

We're on the Web!

See us at: http://www.math.union.edu

under "Department Activities"

- Thinking of Graduate School? The MSRI-UP (Mathematical Sciences Research Institute Undergraduate Program) in Berkeley, California is a comprehensive program for undergraduates that aims to increase the number of students from underrepresented groups in mathematics graduate programs. MSRI-UP includes summer research opportunities, mentoring, workshops on the graduate school application process, and follow-up support. The program will run from June 17 to July 29. Application review will begin on MARCH 2, 2007. For more information see http://www.msri.org/up/.
- Statistics in Seattle The University of Washington is offering an eight-week summer research program in biostatistics starting on June 18. The application deadline is April 1. For more information and an application form, check out the math bulletin board on the first floor of Bailey Hall.
- Teaching in the South The Southern Teacher's Agency, a teacher placement service for private and independent schools in the South, is hosting a job fair on Friday, March 23 in Charlottesville, VA. If you are interested in participating, consult the website at http://www.SouthernTeachers.com/JobFair.htm. The registration deadline for this is March 9. For more information, see their brochure on the math bulletin board on the first floor of Bailey Hall.
- WebWork Woes? Don't just email your professor in desperation – go and actively seek *free* tutoring in the Calculus Help Center (CHC). The CHC is open five nights a week, Sunday – Thursday from 7:30 -10:00pm. It is staffed by experienced, kind, and helpful upperclassmen and it services all calculus courses through Math 115. You can find the CHC in the seminar room of Sorum House.

Problem of the Newsletter: March 2, 2007

Congratulations to Brandon Bartell '10, and Schuyler Smith for submitting correct solutions to last week's problem of the newsletter. We reproduce Brandon's solution below.

Last week's problem: In a single-elimination match tournament with 128 participants, how many matches will be played?

Solution (BB): In a match play tournament, 1 participant will lose and be eliminated in every match. At the end of the tournament all but one participant (the winner/champion) will be eliminated. Therefore if there are n participants, the number of matches played will be n-1. Thus in a 128 participant field, 127 matches will be played.

Here is this week's problem: In the following multiplication problem, A, B, C, and D are different digits. What is A+B?

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  ABA
x  CD
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 CDCD
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Professor Friedman will accept solutions to this problem until 12:00 noon Thursday, March 1.