

math news

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Everyone a Winner at Board Game Night

Dr. Dunmyre led a very successful evening of board games recently. The event was well-attended by students (and faculty) and the attendees were well-fed with pizza (and more pizza). Games played during the evening included Hanabi, Dixit, Bandu, GiftTrap, and Escape (Curse of the Temple).

Spring '15 Upper-Level Course Offerings

- 236.001 Calculus I MTRF 11-11:50 Dunmyre
- 236.002 Calculus I W 3-3:50, TR 3:30-4:45 Lemmert
- 237.001 Calculus II MTRF 11-11:50 Barnet
- 237.002 Calculus II MTRF 2-2:50 Barnet
- 238.001 Calculus III MTRF 2-2:50 Hughes
- 340.101 Fund. Concepts of Geometry T 6-8:25 Michael
- 380.001 Intro. to Probability and Statistics MWF 12-12:50 Hegde
- 432.001 Differential Equations MWF 10-10:50 Barnet
- 436.001 Mathematical Physics TR 12:30-1:45 Hughes
- 440.001 Modern College Geometry MWF 1-1:50 Forsythe
- 465.001 Theory of Numbers MWF 11-11:50 Hughes
- 470.001 Math. Models and Applications TR 3:30-4:45 Dunmyre

Michael Shannon at SUMS 10

Mathematics major Michael Shannon presented an expository research poster, entitled "Tangency Problem of Apollonius", at the tenth annual Shenandoah Undergraduate Mathematics and Statistics (SUMS) Conference, which was held at James Madison University in October. Michael's research was completed under the supervision of Dr. Hughes and was featured along with a number of other undergraduate research projects at FSU's Undergraduate Research Symposium in MAY 2014. More information about SUMS can be found at <http://www.jmu.edu/mathstat/sums/index.shtml>. Students interested in presenting research at the Undergraduate Research Symposium held at FSU each year in May should visit <http://www.frostburg.edu/colleges/clas/research/> for more information.

Solution to our Previous Puzzle

About 1440 hours ago, we presented this problem.
My grandson is about as many days old as my son is in weeks, and my grandson is as many months old as I am in years. My grandson, my son, and I together are 120 years old. What is my age?

To solve, let's set $S = 7G$ and $I = 12G$. Then we know that $120 = G + S + I = G + 7G + 12G = 20G$. Hence, we deduce that $G = 6$, $S = 42$, and $I = 72$.

KME Corner Kitchen

Save a little money and a lot of appetite for a "Mandlebrats" fundraiser on Tuesday, November 18th from 9AM-12PM in the second floor lobby of Compton. KME will sell bratwurst, regular hotdogs, and baked goods in honor of Benoit Mandelbrot's birthday, which is November 20th.

You are also invited to explore the menu of majors at FSU's Major's Fair on Wednesday, November 12th. KME will be representing the Mathematics Department.

Also on KME's plate in the coming weeks will be a presentation from Dr. Barnet on Wednesday, December 3rd at 5:00 in CCIT 245. The topic will be "Fargo, North Dakota and Other Paradoxes."

MEGAMenger

FSU's Mathematics Department recently participated in an international distributed fractal building event called MEGAMenger. The project was the brain child of Matt Parker of Queen Mary University in London and Laura Tallman of James Madison University in Virginia. During the week of October 20, sites from around the globe built modular models of a three-dimensional fractal known as the Menger sponge from paper business cards. Students at FSU, mostly from STEM departments, constructed a Level 2 Menger sponge from 3000 cards over the course of three evenings. MEGAMenger culminated on October 27 with twenty Level 3 sites merging their models, virtually, to assemble the largest model anyone's ever built consisting of around 1.3 million business cards. To learn more about MEGAMenger, visit megamenger.com, as well as our fabrication in CCIT 245.

New Problems

A) The average of four numbers is five less than the average of the three numbers that remain after one has been eliminated. If the eliminated number is 2, what is the average of the four numbers?

B) Suppose a circular hole were drilled symmetrically through the center of a sphere. When the length of the hole was measured along its wall, it was found to be six inches long. What is the volume of the part of the sphere that remains after the material is removed from the hole?

C) Solve for x . $\sqrt{x + \sqrt{x + \sqrt{x + \dots}}} = 5$