

Math News

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Welcome

Math News welcomes you to another academic year. We hope you have a productive and enjoyable semester, particularly in your mathematics courses. Math News is published two or three times per semester, and distributed to students in mathematics courses at the Calculus I level and above. If there are any stories or features you would like to see in this newsletter, please contact Ms. Elder in DH 201B or Dr. Lemmert in DH207B [note however that Dr. Lemmert is on sabbatical during the Fall 2008 term].

Virginia Tech Math Contest

Each year, students from colleges and universities in Virginia and nearby states participate in a mathematics contest created by the Mathematics Department at Virginia Tech in Blacksburg, VA. This year's contest will be held on the morning of Saturday, Nov. 1, and will be given on our campus to any local students who wish to participate. In a typical year, over 300 students from 50+ schools participate. If you would like to test your mettle against some challenging mathematics problems, give the contest a try.

Interested students should contact Dr. Mark Hughes, DH224 by Oct. 3. Dr. Hughes has copies of old tests available for inspection, and tests can also be viewed on the Virginia Tech contest web site at www.math.vt.edu/people/plinnell/Vtregional/exams.html

Two New Primes Discovered

On August 23rd, a 12,978,189-digit prime was discovered, using a UCLA computer. This prime number can be written as $2^{43,112,609} - 1$, meaning that it is a Mersenne Prime (i.e., of the form $2^n - 1$, for an integer n). It took 13 days for the computer to verify that this was, indeed, a prime number. The Electronic Frontier Foundation's (EFF) \$100,000 award for the discovery of the first 10 million digit prime number was distributed for this prime number.

This discovery and the September 6th discovery of a smaller prime (only 11,185,272 digits) were made by using GIMPS (Great Internet Mersenne Prime Search) software. More information can be found at <http://www.mersenne.org/> and more information about the EFF award can be found at www.eff.org/awards/coop

Math Faculty Summer Activities

Several faculty were busy over the summer with school-related and professional activities. **Drs. Forsythe, Hegde, Hughes, and Michael**, and **Mrs. Tootoonchi** taught summer school courses. **Dr. Michael's** summer course was part of the SOFI (Summer Online Freshman Initiative) set of courses reserved for incoming freshmen.

Dr. Hegde directed the 2008 Maryland Summer Center for Mathematics for gifted and talented children. **Drs. Michael, Barnett, and Wojnar** assisted Dr. Hegde in this activity.

Dr. Wojnar and **Dr. Forsythe** attended the MAA national summer MathFest meeting in Madison, WI. **Dr. Wojnar** presented a talk "Exploring a Quartet of Triangle Theorems Using Geometer's Sketchpad®" at the MathFest.

Dr. Michael reviewed an article for the Mathematics Teacher. **Dr. Wojnar** participated in a 2-day online workshop "Fostering Online Discussion" presented by the LERN Network.

Dr. Lemmert began work on his sabbatical leave project on "habits of mind" of students vis-à-vis related expectations of faculty. He is reading, coding, and analyzing 3500 verbal responses collected as part of the Mathematics Curriculum Study conducted by The College Board. We look forward to hearing his results.

Answer to Last Issue's Puzzle

Puzzle from last Semester: Your only timepiece, an alarm clock, stops because you forgot to wind it. You walk to a store that has an accurate wall clock, make some purchases, walk back home and at once set your alarm clock to approximately the correct time. How can you do this if you did not take the alarm clock with you?

Solution: Wind the alarm clock so you can tell how long the journey took. Subtract the length of time you were in the store. Half of the remainder is the time that it took you to walk home from the store. This half, plus the time it was when you left the store, is the time of your return home.

A Little Mathematical Humor

What do you get if you divide the circumference of a bowl of ice cream by its diameter? Pi a la mode.