

mathnews

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KME Corner

The Maryland Delta chapter Kappa Mu Epsilon will meet on Thursday April 28th at 5:00 pm in Dunkle 202. Dr. Mark Hughes will give a presentation on the curvature of planar curves and the honor society will hold elections for next semester's officers. The possibilities of a year-end picnic will also be discussed.

Convocation Honors Awarded

Congratulations to graduating senior Josh Wilson for being awarded convocation honors by the Department of Mathematics. Josh's grade point average, mathematical maturity, and extra-classroom interests (such as KME) were considered as part of the decision. The honors convocation will occur on Friday, May 20th at 7:30 pm.

Graduating Seniors

The Mathematics Department is pleased to announce the list of graduating seniors with a major in mathematics. We wish them well!

Sara Buzard, May 2011
Robert Murtha, May 2011
Rachel Skipper, May 2011
Josh Wilson, May 2011
Laura Reeves, December 2010

On the Money

Recall the previously-presented problem:

"Each US one-dollar bill contains a string of eight digits between two letters (e.g., A13234657E) as a serial number. Suppose that the two letters are given, say A at the beginning and E at the end, and further suppose that every eight-digit string is equally likely. What is the probability that a serial number contains five or more of the same digit (e.g., A00250070E or A91111111E)?"

One way to arrive at the solution is to identify some digit, say "0", and sum the binomial probabilities of getting exactly 5, 6, 7, and 8 uses of that "0" digit. Then multiply by 10, since that identified digit could be any digit. This results in

$$10 \left[\binom{8}{5} (.1)^5 (.9)^3 + \binom{8}{6} (.1)^6 (.9)^2 + \binom{8}{7} (.1)^7 (.9)^1 + \binom{8}{8} (.1)^8 (.9)^0 \right]$$

which is about .0043.

New Problem

Check the bulletin board near DH 203 for the current problem solving contest problem. The deadline for entering solutions is May 10th.

Are You Aware?

April is Mathematics Awareness Month, a project sponsored each year by the American Mathematical Society, the American Statistical Association, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics to recognize the importance of mathematics through written materials and an accompanying poster that highlight mathematical developments and applications in a particular area. The theme this year is "Unraveling Complex Systems."

We are surrounded by complex systems. Familiar examples include power grids, transportation systems, financial markets, the Internet, and structures underlying everything from the environment to the cells in our bodies. Mathematics and statistics can guide us in understanding these systems, enhancing their reliability, and improving their performance. Mathematical models can help uncover common principles that underlie the spontaneous organization, called emergent behavior, of flocks of birds, schools of fish, self-assembling materials, social networks, and other systems made up of interacting agents.

For more information, visit www.mathaware.org.

Free Tee Shirts

If you are a major or minor in mathematics and have not already done so, stop by DH 203 to pick up your free, complimentary, pay-nothing-now-pay-nothing-later, take-it-and-run tee shirt. It displays all the digits in the decimal expansion of pi. Well, ok, not quite all. Say the passphrase "Pi is sweet" to get a 10% discount.

Calculus I To Be Offered Summer I

MATH 236 (Calculus I) will be offered by Dr. Hughes during the first summer session. Successful completion will, of course, qualify you to take Calculus II in the fall.

Math Wisdom From (and For) the Ages

Pure mathematics is, in its way, the poetry of logical ideas.

~Albert Einstein

If two wrongs don't make a right, try three.

~Author Unknown

Mathematics is as much an aspect of culture as a collection of algorithms.

~Carl Boyer

Mathematics is the supreme judge; from its decisions there is no appeal.

~Tobias Dantzig