

# math news

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## Spring Course Offerings

Math 236001 MTRF 2-2:50 G. Wojnar  
Math 236002 M 3:30-4:20, TR 3:30-4:45 K. Lemmert  
Math 237001 MTRF 11-11:50 F. Barnet  
Math 237002 MTRF 2-2:50 R. Forsythe  
Math 238001 MTRF 11-11:50 M. Hughes  
Math 380001 MWF 12-12:50 R. Forsythe  
Math 432001 TR 9:30-10:45 M. Hughes  
Math 437001 MW 4:30-5:45 K. Lemmert  
Math 461001 MWF 10-10:50 M. Hughes  
Math 470001 TR 12:30-1:45 F. Barnet  
Math 481001 TR 2-3:15 L. Hegde

## The World Series (sort of)

A factory window consists of 25 square panes of glass (arranged in a 5x5 square). At lunch, some of the factory workers play baseball, and they have broken 3 of the 25 panes. What is the probability that 3 broken panes would lie on a diagonal?

## Fair Foul Play Answer

Mathematics students A, B, and C are out on the basketball court. They decide to have a competition: they will each take a foul shot, one at a time in order A, B, C, A, B, C, A... . The first one to sink a foul shot wins the competition. B has already announced that she sinks 30% of her foul shots. It turns out the game is completely fair with the students shooting in this order —i.e. each has an equal chance of winning. What percentage of foul shots does A sink? What percentage does C sink?

**Answer:**

- A=3/13 or approximately 23.08%
- C= 3/7 or approximately 42.86%

**Explanation:** We could set this up as an infinite series, or alternatively, if we realize that it is just necessary to make each round “fair,” we can say:

**Solution:** Let  $A = P(\text{A making shot})$ , similarly for B and C. Then  $P(\text{A making shot}) = P(\text{A missing}) \times P(\text{B making shot}) = P(\text{A missing}) \times P(\text{B missing}) \times P(\text{C making shot})$ . Hence,  $A = (1-A) \times .3$  thus  $A = 3/13$ . And,  $B = (1-B) \times C$  thus  $C = 3/7$ .

**Note:** Check out the progression—3/13, 3/10, 3/7.

## KME Corner

Kappa Mu Epsilon has scheduled its next meeting for the first Wednesday after Thanksgiving (December 2<sup>nd</sup>) from 5:00 to 6:00 pm in Dunkle Hall 202. At that meeting, Dr. Frank Barnet will present a talk entitled, “An Army of Penguins: Building a Computer Cluster Using Video Game Consoles.”

Also take note of the newest addition to Dunkle’s second floor hallway --- the new KME bulletin board. It provides much useful and informative information, including requirements for KME membership. The next installation of new members will be during the Spring semester.

## Student Reporters Wanted

If you have an idea for a MATH NEWS story, please contact Professor Kurt Lemmert in Dunkle Hall 207B or via email ([KLemmert@frostburg.edu](mailto:KLemmert@frostburg.edu)). Our publication schedule is (at least) semisemesterial, so the next issue will appear in February.

## Talking Math

If people do not believe that mathematics is simple, it is only because they do not realize how complicated life is.  
~John Louis von Neumann

Black holes result from God dividing the universe by zero.  
~Author Unknown

Mathematics - the unshaken Foundation of Sciences, and the plentiful Fountain of Advantage to human affairs.  
~Isaac Barrow

I never did very well in math - I could never seem to persuade the teacher that I hadn’t meant my answers literally.  
~Calvin Trillin

Go down deep enough into anything and you will find mathematics.  
~Dean Schlicter

Sometimes it is useful to know how large your zero is.  
~Author Unknown

In binary we count on our fists instead of on our fingers.  
~Author Unknown