

Math News

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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. Revenaugh** taught an independent study over the summer as well.

Dr. Michael directed the 2008 Maryland Summer Center for Mathematics for gifted and talented children. This year there were 27 students from across the state who participated. **Dr. Wojnar** assisted Dr. Michael in this activity.

Dr. Lemmert continued working on his sabbatical leave project on “habits of mind” of students vis-à-vis related expectations of faculty.

Change of Chairs

After three 3-year terms as mathematics department chair, Dr. Lance Revenaugh has returned to the classroom full-time this Fall. Dr. Marc Michael has assumed the chairship. *MATH NEWS* thanks both gentlemen for their ability and willingness to serve in such an important role.

Meet & Greet A Hit

The recent mathematics meet-and-greet cookout was, by all accounts, a big success. More than 30 students were in attendance, including five physics/engineering majors. Besides mathematics faculty, several faculty members from outside the department attended the event as well. The food was tasty, the socializing enjoyable, and the “Sets” games intense. Look for similar opportunities in the future.

Visit the Majors Fair 2009

The mathematics department, along with KME, will be participating in FSU’s Majors Fair 2009, which will be held on Wednesday, October 21st from 11am to 3pm in the Lane Center ARMAH. It is a perfect opportunity to learn about benefits of the department, including student organizations, internship opportunities, possible careers, etc.

KME Corner

KME announces its new leadership team for 2009-2010.

President Kelly Seaton
Vice President Josh Wilson
Secretary Joe Bascelli
Treasurer Brad Phillips
Advisors Drs. Hughes & Barnet

The Solution You’ve Been Waiting For

Are We There Yet? (from the previous issue of *Math News*)

The chartered bus to Branson left Arlington at 7 a.m., stopped for lunch, and arrived in Branson at 7:30 p.m. At 9:30 a.m., 12-year old Jackson asked how far they’d gone. The driver replied, “Half the distance from here to the lunch stop.” At 5:30 p.m., 420 miles later, Jackson asked how much further. The driver said, “Half the distance we’ve gone since lunch.”

How long was the trip, and (assuming the bus maintained a constant driving speed) how long was the lunch stop?

Answer:

The 630-mile trip included a one-hour lunch stop. Let Point A represent the position of the bus at 9:30 a.m. and Point B represent the position at 5:30 p.m. From the driver’s statements, we know that the distance from Arlington to A plus the distance from B to Branson is equal to one-half the distance from A to B. Since A to B is 420 miles, the trip from Arlington to Branson is 630 miles.

Assuming constant driving speed, the bus apparently stopped for lunch at 2:30 p.m. (the bus traveled twice as long after 9:30 a.m. as before). Further, it appears that the trip resumed after lunch at 1:30 p.m. (four hours before the final two-hour leg), which seems to be a conflict. The key is that the times 7 a.m., 9:30 a.m., 5:30 p.m., and 7:30 p.m. cannot all be in the same time zone. The bus started in Arlington, CO and traveled east. Clocks were moved forward enroute to point A, and the lunch break was from 12:30 p.m. to 1:30 p.m. (Alternatively, if one assumed clocks were moved forward between point B and Branson, lunch was later – from 2:30 p.m. to 3:30 p.m.). Either way, the lunch break was one hour, and the bus maintained a 60-mph speed to arrive on time.

New Puzzle: Fair Foul Play

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?

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