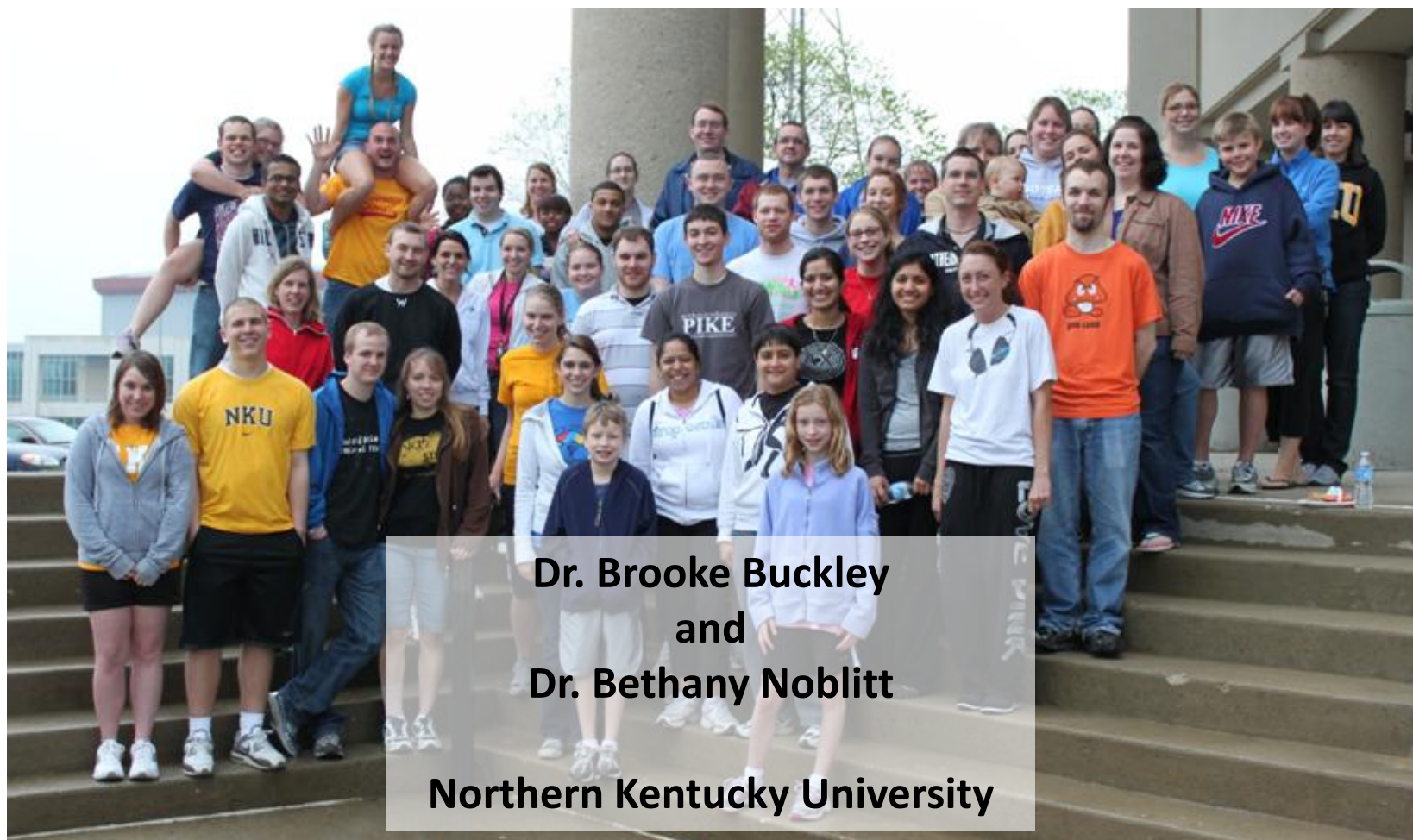


THE AMAZING MATHEMATICAL RACE



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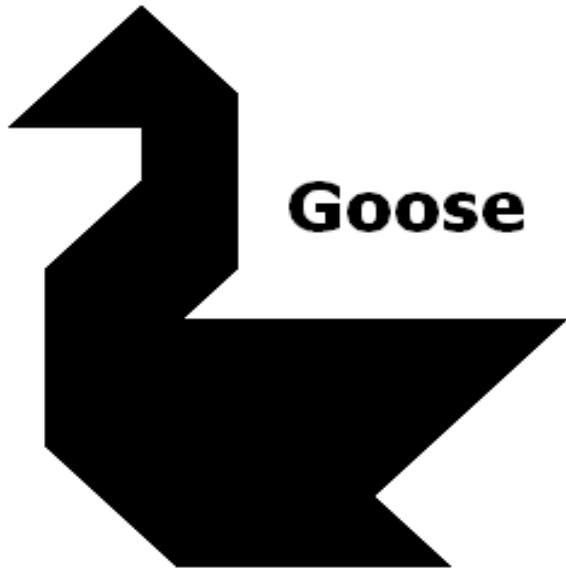
THE AMAZING MATHEMATICAL RACE

The Amazing Mathematical Race was designed to celebrate Math Awareness Month each April.

- Spring 2009 – 8 teams, 32 participants
- Spring 2010 – 17 teams, 50 participants
- Spring 2011 – 19 teams, over 60 participants

Challenge 1 – Tangrams

Challenge 1: Put the tangram puzzle pieces together to make one of the following pictures.







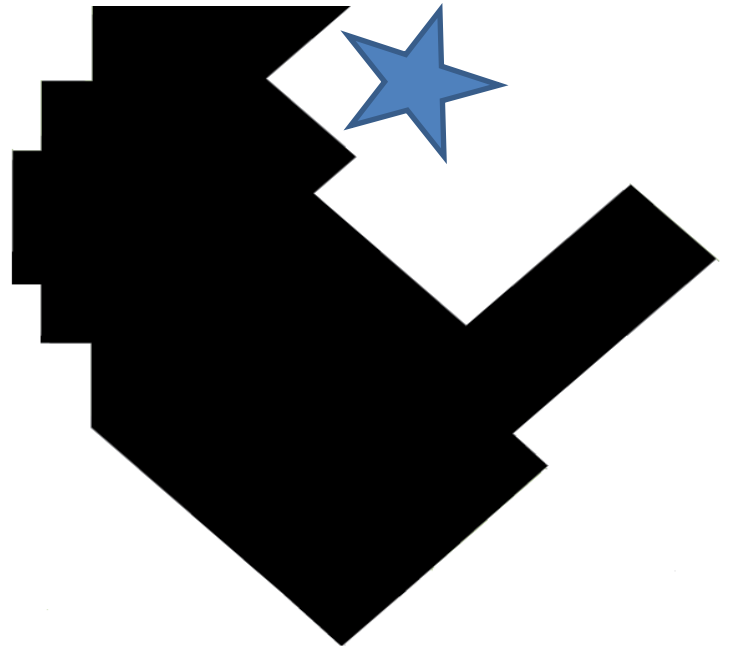
Location Clues

Location 2



Search this structure for the location of your next challenge.

Location 3



Find the starred location on the campus map for your next challenge.

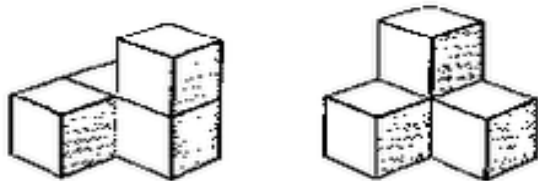
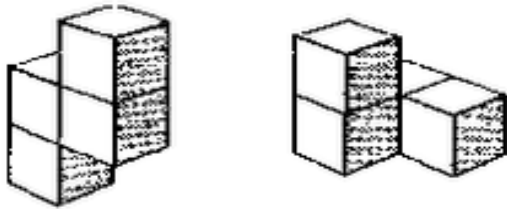
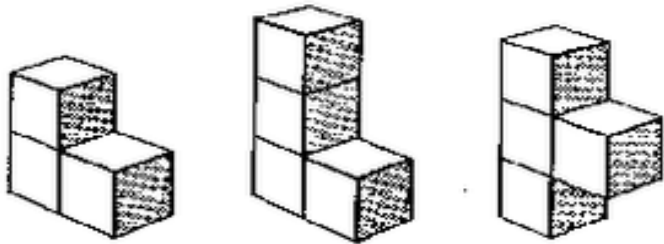
Challenge 2 – Abacus

Challenge 2: *What number must be added to the quantity shown on the giant abacus to make the sum total 10,000? Fill in your answer on the abacus below.*

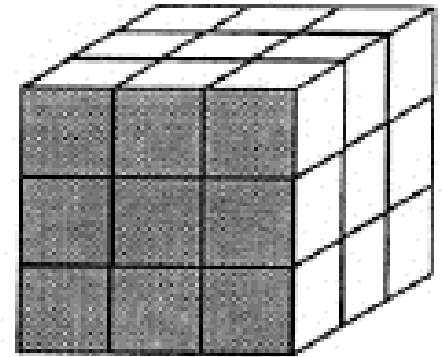
If you are correct, your challenge captain will mark your passport with a checkmark and give you the location to your next clue. If you are incorrect, you may continue to try to solve the problem until you either get the solution or you choose to accept an X on the challenge.



Challenge 3 – Soma Cubes



Challenge 3: Arrange the seven Soma pieces into a 3x3 cube.





Details

- The Start
- Challenge Stations
- Short Cut
- The Finish



Team Number 1

1

2

3

4

5

6

7

8

9

10



Team Number 2

2

3

4

5

6

7

8

9

10

1

Details

- The Start
- Challenge Stations
- Short Cut
- The Finish

Improvements that we made

- Removed time limits on challenges
- Added time limit on race
- More hands-on challenges

Tips when planning a race

- Challenge Captains need a list of teams
- One volunteer needs to be the Race Leader
- Have cell phones available
- More than one challenge per challenge captain
- Have a prize
- Have a sign up deadline
- Have a meeting with the challenge captains
- Give hints
- Short cut is optional
- Can be adapted for different age levels, different locations and different lengths

Read about it

You can read more about our Amazing Mathematical Race in the September 2011 issue of the Mathematics Teacher published by NCTM.



Participants race across a university campus, completing challenging mathematical tasks that correspond to NCTM's Standards.

the amazing mathematical race

Bethany A. Noblitt and Brooke E. Buckley

THE BASIC RULES
Teams
Members of the Math and Stats Club were instructed to sign up for the Amazing Mathematical Race with a partner who was neither a student nor a teacher in the Department of Mathematics and Statistics. The purpose of this request was to include Math Awareness Month by promoting the discipline to those who do not consider themselves "math people." In our Amazing Mathematical Race, eleven teams competed, and the composition of the teams varied. Some teams consisted of a student and a friend, a student and a parent, and a faculty member and his child. A participating faculty member of the Department of Mathematics and Statistics who was on a team with his two teenage daughters, commented, "It's had a great meaning as a family doing math. My wife is a high school math teacher, and she thought students would have loved it."
Teams began the race with a calculator, pencil and paper, and a "passport" to mark their progress through the ten challenges. They were also given a clue to direct them to their first challenge location. The clue could be in alphabetical direction, riddle-like instructions, or photographs of landmarks. The race course itself was fixed, but in an attempt to control the flow of the race, we had the teams start at different locations. However, all teams completed the challenge independently.


Team, set steps, clues, time limits, fair formulas, challenges, and prizes are all components of the CBS hit show "The Amazing Race." They were also elements of the Amazing Mathematical Race sponsored by the Math and Stats Club at Northern Kentucky University in April 2008. Held in recognition of Math Awareness Month, which is addressed by the Joint Policy Board for Mathematics, the race was the culminating event of the month for the university's Math and Stats Club (of which the authors are co-sponsors).
Teams of two people each competed in a series of ten mathematics-related challenges set up throughout the university campus. The goals of this event were twofold: to hold an activity that featured mathematics in a fun and exciting environment and to highlight this fun environment for people who are typically wary of mathematics. Through this discussion of various components of the race and how we met these goals, we hope to spark teachers' interest in planning and implementing their own Amazing Mathematical Race.

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Get more information

For sample participant instructions, passports and challenges for the Amazing Mathematical Race visit www.kctm.org/TAMR




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[Participant Instructions](#) [Passports](#)

Challenges, Hints and Answers

Damsel in Distress *

Once upon a time, a notorious knight captured a damsel and imprisoned her in a castle surrounded by a square moat that was infested with extraordinarily hungry alligators. The moat was 20 feet across, and no drawbridge existed because after depositing the damsel in the castle, the evil knight had taken it with him.



After a good time, a good knight rode up and said, "Hail sweet damsel, for I am here, and thou art there. Now what are we going to do?"

The knight, though good, was not too bright and consequently paced back and forth along the moat looking anxiously at the alligators and trying feebly to think of a plan. While doing so, he stumbled upon two sturdy wooden beams suitable for walking across, but lacking sufficient length. Alas, the moat was 20 feet across, but the beams were each only 19 feet long and 8 inches wide. He had no nails, screws, saws, Superglue, or any other method of joining the two beams to extend their length. What to do? What do to??

Challenge: Help the knight rescue the damsel in distress using only the two beams of wood that were found. Once you believe that you've found a solution, show it to the challenge captain. If you are correct, then you will receive your next clue.

