Math 1031,   Self-Evaluation Exercise 3
November 30, 2009

Name: _____

Discussion Section: _____

Discussion TA: _____

This exercise is for your practise. There are six open-ended problems. Give yourself 20 minutes to complete the exercise, and see how you do.

1. Dan, Yun, and Ben walk into Starbucks. Each picks one of the following: a latte, an espresso, a capucino, a hot chocolate, a hot tea. How many possible outcomes are there?

2. If no number contains repeated digits, how many numbers greater than 3,000 can be formed by choosing from the digits 1,2,3,4?

3. A soccer coach chooses a Best Offensive Player, a Best Defensive Player, and a Most Improved Player from a team of 20 players. How many possible outcomes are there?

4. An art critic nominates ten promising young artists from a pool of 120 art students and gives four of them strong recommendations. How many possible ways can this be done?

5. Each distinct arrangement of the letters of the word MINNESOTA is written on a slip of paper and put in a hat. One slip is drawn at random from the hat. What is the probability that the slip constains an arrangement of the letters with the two Ns at the end?

6. Lucas and Angelica, along with ten other college students, are going to be mentors for twelve children at the YMCA. As they walk up to the YMCA, they see two kids playing outside. Assuming the kids *are* in the mentoring program, what is the probability that these two kids are the ones assigned to Lucas and Angelica?