

Stat 1040
Quiz 6, Fall 2014

Name _____
Recitation Instructor _____

1. There are 25 students in a class.

a) How many ways can you select a committee of size 5? (2 points)

b) If John and Mary are in the class and are willing to serve on the committee but only if they are together, how many ways can you select a committee of size 5? (2 points)

2. You play a game in which you win \$1 if the percentage of heads (fair coin) is less than 60%. Which is better for you, 100 tosses or 1000 tosses? (2 points)

3. A biased coin has probability $1/3$ of *heads* when tossed. Suppose you toss this coin 400 times and when it comes up *heads* you get \$5 but when it comes up *tails* you lose \$1. Build a box model for the total amount you win in this game. (4 points)