

This quiz covers material from 6.4, 7.1, and 7.2. Show your work. It is acceptable if you set up but do not compute the answers.

1. (*2 points*) For the 4th of July holiday, a roadside stand sells 8 types of fireworks and 6 different sets of decorations. If you decide to buy 4 types of fireworks and 2 different sets of decorations, how many ways can you do this?

2. (*2 points*) Find the number of distinguishable permutations that can be formed from the letters of the word POPCORN.

3. (*2 points*) An experiment consists of tossing a fair coin three times and observing the total number of tails flipped. Describe an appropriate sample space for this experiment.

4. (*2 points*) Set up a probability distribution table for the events of the sample space in problem 3.