1. The outcome of an experiment is the number of resulting heads when a nickel and a dime are flipped simultaneously. What is the sample space for this experiment?

2. Two white mice mate. The male has both a white and a black fur-color gene. The female has only white fur-color genes. The fur color of the offspring depends on the pairs of fur-color genes that they receive. Assume that neither the white nor the black gene dominates. List the possible outcomes. W = white and B = black. Create the sample space of possible outcomes.

3. Tossing a coin 3 times. Let A denote the event exactly 2 heads are thrown. List the sample points in A.

4. An experiment consists of randomly choosing a number between 1 and 10. Let E be the event that the number chosen is odd. List the sample points in E.

5. Both Fred and Ed have a bag of candy containing a lemon drop (L), a cherry drop (C), and a orange drop (O). Each takes out one piece from their bag and eats it.

a) What is the sample space of the possible pairs of candies eaten?

b) How many possible pairs of candies eaten?

6. A batch of 500 machined parts contains 10 that do not conform to customer requirements. Let X denote the number of parts in a sample of 3 parts that do not conform to customer requirements. The possible values of X are?