1. A man receives presents from his three children, Allison, Betty and Chelsea. To avoid disputes he opens the presents in a random order. What are the possible outcomes?

2. Two boys are repeatedly playing a game that they each have probability 1/2 of winning. The first person to win five games wins the match. What is the probability that Al will win if (a) he has won 4 games and Bobby has won 3; (b) he leads by a score of 3 games to 2?

3. In a group of 320 high school graduates, only 160 went to college but 100 of the 170 men did. How many women did not go to college?

4. (a) How many license plates are possible if the first three places are occupied by letters and the last three by numbers? (b) Assuming all combinations are equally likely, what is the probability the three letters and the three numbers are different?

5. A basketball team has 5 players over six feet tall and 6 who are under six feet. How many ways can they have their picture taken if the 5 taller players stand in a row behind the 6 shorter players who are sitting on a row of chairs?

6. A student studies 12 problems from which the professor will randomly choose 6 for a test. If the student can solve 9 of the problems, what is the probability she can solve at least 5 of the problems on the test?

7. Suppose we pick 5 cards out of a deck of 52. What is the probability we get at least one card of each suit?