Do the following problems from the Moore text:
Problems: 10.2, 10.8 and 10.9
Problems: 12.1, 12.4, 12.5, 12.6, 12.7
Problems: 12.9, 12.12, 12.14, 12.16, 12.27, 12.39, 12.52, 12.54, 12.55, 12.56, 12.57

Read Example 10.9 on page 276 and do the following problems from the Moore text:
Problems: 10.10, 10.13, 10.18, 10.51

1. Of families with 4 children, what proportion have more girls than boys? You may assume that the sex of a child is determined with the same chances of tossing heads when flipping a coin.

2. In the U.S. in 1990, 20,273 people were murdered, compared to 16,848 in 1970.
   (a) Is the difference in the number of murders significant?
   (b) “These figures show that the U.S. became a more violent society over the period 1970-1990.” True or false, and explain briefly.

3. In the game of craps, somebody rolls a pair of dice, and that person plus a bunch of people standing around watching bet on the sum of the faces pointing up when the dice come to rest. Each die has six faces, which (when the dice are thrown fairly) come up equally often. Two outcomes of particular interest are rolling a three (that is one way to lose, or “crap out”) and rolling a seven, which at some points in the game is one way to win. What is the chance of getting a three on any single roll of the dice? How about a seven?