8.3 Homework

1. For each of the following chance experiments, list the sample space (all the possible outcomes).
   a. Rolling a 4-sided die with the numbers 1–4 on the faces of the die
      i. Sample Space:
      ii. Are the outcomes equally likely to occur? _______

   b. Selecting a letter from the word *mathematics*
      i. Sample Space:
      ii. Are the outcomes equally likely to occur? _______

   c. Selecting a marble from a bag containing 50 black marbles and 45 orange marbles
      i. Sample Space:
      ii. Are the outcomes equally likely to occur? _______

   d. Selecting a number from the even numbers 2–14, including 2 and 14
      i. Sample Space:
      ii. Are the outcomes equally likely to occur? _______

   e. Spinning the spinner below:
      i. Sample Space:
      ii. Are the outcomes equally likely to occur? _______

   ![Spinner Diagram]

2. You are playing a game using the spinner below. The game requires that you spin the spinner twice. For example, one outcome could be yellow on the 1st spin and red on the 2nd spin. List the sample space (all the possible outcomes) for the two spins.

   ![Second Spinner Diagram]