## Lesson 15 Practice Problems

1. Noah is planning his birthday party. Here is a tree showing all of the possible themes, locations, and days of the week that Noah is considering.
a. How many themes is Noah considering?
b. How many locations is Noah considering?

c. How many days of the week is Noah considering?
d. One possibility that Noah is considering is a party with a space theme at the skating rink on Sunday. Write two other possible parties Noah is considering.

e. How many different possible outcomes are in the sample space?
2. For each event, write the sample space and tell how many outcomes there are.
a. Lin selects one type of lettuce and one dressing to make a salad.

Lettuce types: iceberg, romaine
Dressings: ranch, Italian, French
b. Diego chooses rock, paper, or scissors, and Jada chooses rock, paper, or scissors.
c. Spin these 3 spinners.

3. A simulation is done to represent kicking 5 field goals in a single game with a 72\% probability of making each one. A 1 represents making the kick and a 0 represents missing the kick.

| trial | result |
| :---: | :---: |
| 1 | 10101 |
| 2 | 11010 |
| 3 | 00011 |
| 4 | 11111 |
| 5 | 10011 |

Based on these results, estimate the probability that 3 or more kicks are made.

This problem is from an earlier lesson
4. There is a bag of 50 marbles.

- Andre takes out a marble, records its color, and puts it back in. In 4 trials, he gets a green marble 1 time.
- Jada takes out a marble, records its color, and puts it back in. In 12 trials, she gets a green marble 5 times.
- Noah takes out a marble, records its color, and puts it back in. In 9 trials, he gets a green marble 3 times.

Estimate the probability of getting a green marble from this bag. Explain your reasoning.

