

What are Your Chances?

Name _____

Date _____ Period _____

1. List the possible sample space (all possible outcomes) for each spinner.
2. List the possible sample space (all possible outcomes) for the die.
3. Find the sample space (all possible outcome) for spinning the colored spinner and rolling a die. Use a **tree diagram** to help organize the possible outcomes.
4. Represent the two events in a two-way table.
5. Does spinning a four-section spinner affect the number a six-sided die will land upon when rolled? Explain.

Use the two spinners to answer the questions 6-8.

6. Explain if spinning both spinners is an independent or dependent event.

7. Represent the events in a tree diagram or a two-way table.

8. What is the sample space (all possible outcomes) for spinning both spinners?

9. Give any example of a situation involving two independent events.

10. Why would the example of picking card from a deck, keeping it, and picking again be an example of a dependent event?

11. For each situation, tell whether it represents an independent or dependent event. Why?
 - a. There are 5 marbles in a bag. Four are blue and one is red. A marble is selected and not replaced back in the bag.

 - b. You are going to pick a card from a deck, replace it, and then draw a second card. You are trying to find the probability of both cards being an ace.

 - c. You flip a coin two times and find the probability of getting heads both times.

 - d. There are 3 red candies left in a bag of 20 multicolored candies. You are finding the chances of getting a red candy, eating it, and then getting another red candy.

 - e. You are getting dressed in the dark. The drawer has 6 blue socks, 8 black socks, and 10 white socks. You pick out a sock, hold on to it, and pick a second sock. You are finding the probability of picking two black socks.