Use the spinner at the right, and write each probability as a fraction in simplest form?
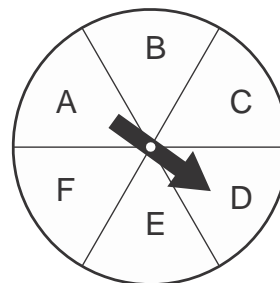
1. *P*(A)   2. *P*(consonant)   3. *P*(*not* B)

For Exercises 4-6, what is the total number of outcomes in each sample space?

4. Picking a day of the week and rolling a number cube   5. Tossing a dime and picking a finger

6. Choosing a setting on a dishwasher from regular, light wash, or baked on; warm, hot or cold water; regular rinse or extra rinse.

7. What is the total number of outcomes for choosing a month and a day of a year? Use the Fundamental Counting Principle.

8. A newspaper ad is handing out coupons worth 6%, 15%, 25%, 40% or 30% off. Each coupon is equally likely to be handed out. Describe a model that could be used to simulate this situation.

For Exercises 9 and 10, Bailey tossed a coin 16 times. The results were 9 heads and 7 tails.

9. What is the experimental probability of tossing tails?

10. Compare the theoretical and experimental probability of tossing heads.

11. A bag contains 6 red marbles and 4 white marbles. A marble is selected, kept out of the bag, and then another marble is selected. What is *P*(red, then white)?

Find each value.

12. *P*(7, 4)   13. *P*(9, 3)   14. *P*(14, 5)

A number cube labeled one though six is rolled and a letter is selected from the word MISSISSIPPI. Find each probability.

15. *P*(2 and S)   16. *P*(6 and vowel)

17. A jar contains 8 blue marbles, 5 yellow marbles, and 3 green marbles. What is the probability of randomly choosing a yellow marble, not replacing it, and then choosing a blue marble?

18. Mary has ten pairs of shoes. She wants to organize them in her closet so that they are placed in a row. In how many different ways can Mary arrange ten pairs of shoes in a row? The pairs will not be separated.

19. Coach Jackson will select a captain and a co-captain from the students in her physical education class. If there are 26 students from which to select, how many different outcomes are possible?

20. A bowl contains 11 pennies, 12 nickels, and 8 dimes. Evan removes one coin at random from the bowl and does not replace it. He then removes a second coin at random. What is the probability that both will be dimes?

21. Draw a tree diagram to find the sample space to represent how many dinner options you have for the following menu.

Drink	Dinner	Dessert
Soda	Hot Dog	Ice Cream
Coffee	Chicken Fingers	Cake
	Pasta	Pie