

1. **COMBINATIONS** The lock is numbered from 0 to 49. Each combination uses three numbers in a right, left, right pattern. Find the total number of possible combinations for the lock.

Use a tree diagram to find the sample space and the total number of possible outcomes.

2.

	Miniature golf, Laser tag, Roller skating
	1:00 P.M. - 3:00 P.M. 6:00 P.M. - 8:00 P.M.

3.

	News, Sci-Fi, Mystery
Video	Lion, Bear, Hawk, Dragon
Game	Realistic, Cartoon

Use the Fundamental Counting Principle to find the total number of possible outcomes.

4.

	Beverage
Size	Small, Medium, Large
Flavor	Root beer, Cola, Diet cola, Iced tea, Lemonade, Water, Coffee

5.

	2 GB, 4 GB, 8 GB, 16 GB
	Silver, Green, Blue, Pink, Black

6.

	Dots, Stripes, Checkers, Board
	One color, Multicolor
	Balloon animals, Juggling, Unicycle, Magic

7.

	Nachos, Soup, Sopa ch dip, Salad, Fruit
	Chicken, Beef, Spaghetti, Fish
	Cake, Cookies, Ice cream

8. **NOTE CARDS** A store sells three types of note cards. There are three sizes of each type. Show two ways to find the total number of note cards the store sells.

9. **ERROR ANALYSIS** A true-false quiz has five questions. Describe and correct the error in using the Fundamental Counting Principle to find the total number of ways that you can answer the quiz.

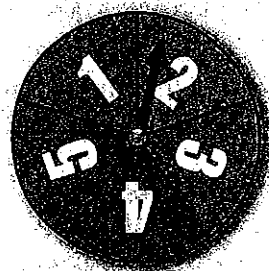


$$2 + 2 + 2 + 2 + 2 = 10$$

You can answer the quiz in 10 different ways.

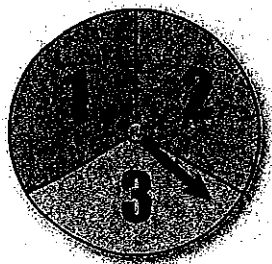
You spin the spinner and flip a coin. Find the probability of the compound event.

10. Spinning a 1 and flipping heads
11. Spinning an even number and flipping heads
12. Spinning a number less than 3 and flipping tails
13. Spinning a 6 and flipping tails
14. *Not* spinning a 5 and flipping heads
15. Spinning a prime number and *not* flipping heads



You spin the spinner, flip a coin, then spin the spinner again. Find the probability of the compound event.

16. Spinning blue, flipping heads, then spinning a 1
17. Spinning an odd number, flipping heads, then spinning yellow
18. Spinning an even number, flipping tails, then spinning an odd number
19. *Not* spinning red, flipping tails, then *not* spinning an even number



20. **TAKING A TEST** You randomly guess the answers to two questions on a multiple-choice test. Each question has three choices: A, B, and C.
- a. What is the probability that you guess the correct answers to both questions?
 - b. Suppose you can eliminate one of the choices for each question. How does this change the probability that your guesses are correct?