

Practice**Counting Outcomes**

Determine whether each is an outcome or a sample space for the given experiment.

1. (H, T, H); tossing a coin three times
2. (green, black); choosing one marble from a box of green and black marbles
3. (green, green), (green, black), (black, green), (black, black); choosing two marbles, one at a time, from a box of several green and several black marbles
4. (3, 1, 4, 5); rolling a number cube four times
5. (1, 2, 3, 4, 5, 6); rolling a number cube once
6. (red, black); choosing two cards from a standard deck
7. (dime, penny); choosing two coins from a bag of dimes, nickels, and pennies
8. (dime, nickel, penny); choosing one coin from a bag of dimes, nickels, and pennies

Find the number of possible outcomes by drawing a tree diagram.

9. Suppose you can have granola or wheat flakes for cereal with a choice of strawberries, bananas, peaches, or blackberries.
10. Suppose you can travel by car, train, or bus to meet a friend. You can leave either in the morning or the afternoon.

Find the number of possible outcomes by using the Fundamental Counting Principle.

11. Suppose you toss a coin five times.
12. Suppose you can make an outfit from six sweaters, four pairs of jeans, and two pairs of shoes.