

# Lesson 5 Skills Practice

## Fundamental Counting Principle

Use the Fundamental Counting Principle to find the total number of outcomes in each situation.

1. rolling two number cubes and tossing one coin  
cube 1# cube #2 and 1 coin  
 $6 \times 6 \times 2 = 72$  outcomes
2. choosing rye or Bermuda grass and 3 different mixtures of fertilizer  
 $2 \times 3 = 6$  outcomes
3. making a sandwich with ham, turkey, or roast beef; Swiss or provolone cheese; and mustard or mayonnaise  
 $3 \times 2 \times 2 = 12$  outcomes
4. tossing 4 coins  
 $4 \times 2 = 8$  outcomes
5. choosing from 3 sizes of bottled water and from distilled, filtered, or spring water  
 $3 \times 3 = 9$  outcomes
6. choosing from 3 flavors and 3 sizes of juice  
 $3 \times 3 = 9$  outcomes
7. choosing from 35 flavors of ice cream; one, two, or three scoops; and sugar or waffle cone  
 $35 \times 3 \times 2 = 210$  outcomes
8. picking a day of the week and a date in the month of April  
 $7 \times 30 = 210$  outcomes
9. rolling 3 number cubes and tossing 2 coins  
 $3 \times 6 \times 2 \times 2 = 72$  outcomes
10. choosing a 4-letter password using only 5 letters that may each be used more than once  
 $4 \times 5 = 20$  outcomes
11. choosing a bicycle with or without shock absorbers; with or without lights; and 5 color choices  
 $2 \times 5 \times 2 = 20$  outcomes
12. a license plate that has 3 numbers from 0 to 9 and 2 letters where each number and a letter may be used more than once  
 $3 \times 2 = 6$  outcomes