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

   36 x 2 = 72 outcomes

2. choosing rye or Bermuda grass and 3 different mixtures of fertilizer

grass	mixtures	
2	3	= 6 outcomes

3. making a sandwich with ham, turkey, or roast beef; Swiss or provolone cheese; and mustard or mayonnaise

meat	cheese	sauce	
3	2	2	= 12 outcomes

4. tossing 4 coins

   2 x 2 x 2 x 2 = 8 outcomes

5. choosing from 3 sizes of bottled water and from distilled, filtered, or spring water

water size	water	
3	3	= 9 outcomes

6. choosing from 3 flavors and 3 sizes of juice

flavors	sizes	
3	3	= 9 outcomes

7. choosing from 35 flavors of ice cream; one, two, or three scoops; and sugar or waffle cone

flavors ice cream	scoop choice	cone	
35	3	2	= 210 outcomes

8. picking a day of the week and a date in the month of April

9. rolling 3 number cubes and tossing 2 coins

cubes	coins	
216	4	= 864 outcomes

10. choosing a 4-letter password using only 5 letters that may each be used more than once   4 x 5 = 20 outcomes

11. choosing a bicycle with or without shock absorbers; with or without lights; and 5 color choices   2 x 2 x 5 = 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 x 2 = 6 outcomes