## Lesson 16 Practice Problems

1. A vending machine has 5 colors (white, red, green, blue, and yellow) of gumballs and an equal chance of dispensing each. A second machine has 4 different animal-shaped rubber bands (lion, elephant, horse, and alligator) and an equal chance of dispensing each. If you buy one item from each machine, what is the probability of getting a yellow gumball and a lion band?
2. The numbers 1 through 10 are put in one bag. The numbers 5 through 14 are put in another bag. When you pick one number from each bag, what is the probability you get the same number?
3. When rolling 3 standard number cubes, the probability of getting all three numbers to match is $\frac{6}{216}$. What is the probability that the three numbers do not all match? Explain your reasoning.
4. For each event, write the sample space and tell how many outcomes there are.
a. Roll a standard number cube. Then flip a quarter.
b. Select a month. Then select 2020 or 2025.
(From Unit 8, Lesson 15.)
5. On a graph of the area of a square vs. its perimeter, a few points are plotted.

a. Add some more ordered pairs to the graph.
b. Is there a proportional relationship between the area and perimeter of a square? Explain how you know.
(From Unit 5, Lesson 7.)
