Lesson 6 Practice Problems

1. The weather forecast says there is a 75% chance it will rain later today.

   a. Draw a spinner you could use to simulate this probability.

   b. Describe another way you could simulate this probability.

2. An experiment will produce one of ten different outcomes with equal probability for each. Why would using a standard number cube to simulate the experiment be a bad choice?

3. An ice cream shop offers 40 different flavors. To simulate the most commonly chosen flavor, you could write the name of each flavor on a piece of paper and put it in a bag. Draw from the bag 100 times, and see which flavor is chosen the most. This simulation is not a good way to figure out the most-commonly chosen flavor. Explain why.

4. Each set of three numbers represents the lengths, in units, of the sides of a triangle. Which set can *not* be used to make a triangle?

   A. 7, 6, 14

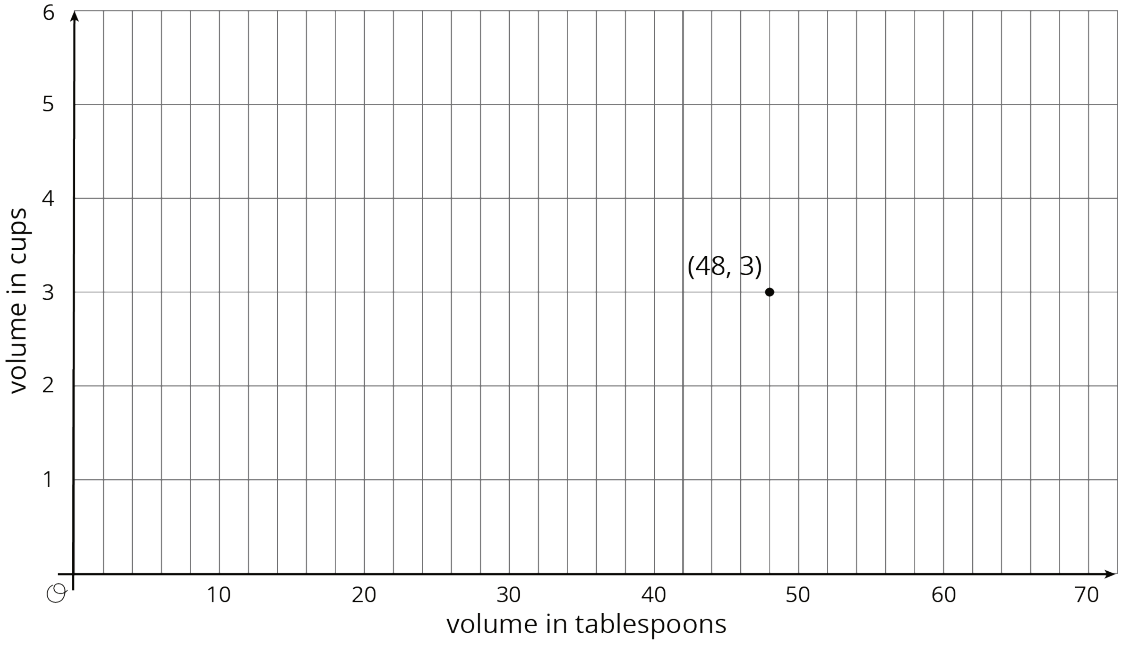
   B. 4, 4, 4

   C. 6, 6, 2

   D. 7, 8,13

(From Unit 7, Lesson 7.)

5. There is a proportional relationship between a volume measured in cups and the same volume measured in tablespoons. 48 tablespoons is equivalent to 3 cups, as shown in the graph.



a. Plot and label some more points that represent the relationship.

b. Use a straightedge to draw a line that represents this proportional relationship.

c. For which value y is $(1, y)$ on the line you just drew?

d. What is the constant of proportionality for this relationship?

e. Write an equation representing this relationship. Use c for cups and t for tablespoons.

(From Unit 2, Lesson 14.)