Lesson 12 Practice Problems

1. One inch is around $2\frac{11}{20}$ centimeters.

    a. How many centimeters long is 3 inches? Show your reasoning.

    b. What fraction of an inch is 1 centimeter? Show your reasoning.

    c. What question can be answered by finding $10 \div 2\frac{11}{20}$ in this situation?

2. A zookeeper is $6\frac{1}{4}$ feet tall. A young giraffe in his care is $9\frac{3}{8}$ feet tall.

    a. How many times as tall as the zookeeper is the giraffe?

    b. What fraction of the giraffe's height is the zookeeper's height?

3. A rectangular bathroom floor is covered with square tiles that are $1\frac{1}{2}$ feet by $1\frac{1}{2}$ feet. The length of the bathroom floor is $10\frac{1}{2}$ feet and the width is $6\frac{1}{2}$ feet.

    a. How many tiles does it take to cover the length of the floor?

    b. How many tiles does it take to cover the width of the floor?

4. The Food and Drug Administration (FDA) recommends a certain amount of nutrient intake per day called the "daily value." Food labels usually show percentages of the daily values for several different nutrients—calcium, iron, vitamins, etc.

   Consider the problem: In $\frac{3}{4}$ cup of oatmeal, there is $\frac{1}{10}$ of the recommended daily value of iron. What fraction of the daily recommended value of iron is in 1 cup of oatmeal?

   Write a multiplication equation and a division equation to represent the question. Then find the answer and show your reasoning.

   (From Unit 4, Lesson 11.)

5. What fraction of $\frac{1}{2}$ is $\frac{1}{3}$? Draw a tape diagram to represent and answer the question. Use graph paper if needed.

   (From Unit 4, Lesson 7.)

6. Noah says, "There are $2\frac{1}{2}$ groups of $\frac{4}{5}$ in 2." Do you agree with him? Draw a tape diagram to show your reasoning. Use graph paper, if needed.

   (From Unit 4, Lesson 6.)