Lesson 10 Practice Problems

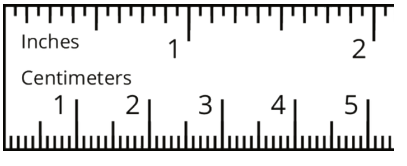
1. Priya is sharing 24 apples equally with some friends. She uses division to determine how many people can have a share if each person gets a particular number of apples. For example, $24 \div 4 = 6$ means that if each person gets 4 apples, then 6 people can have apples. Here are some other calculations:

   $24 \div 4 = 6$ $\quad$ $24 \div 2 = 12$ $\quad$ $24 \div 1 = 24$ $\quad$ $24 \div \frac{1}{2} = ?$

   a. Priya thinks the "?" represents a number less than 24. Do you agree? Explain or show your reasoning.

   b. In the case of $24 \div \frac{1}{2} = ?$, how many people can have apples?

2. Here is a centimeter ruler.

   a. Use the ruler to find $1 \div \frac{1}{10}$ and $4 \div \frac{1}{10}$.

   b. What calculation did you do each time?

   c. Use this pattern to find $18 \div \frac{1}{10}$.

   d. Explain how you could find $4 \div \frac{2}{10}$ and $4 \div \frac{8}{10}$.

3. Find each quotient.

   a. $5 \div \frac{1}{10}$

   b. $5 \div \frac{3}{10}$

   c. $5 \div \frac{9}{10}$

4. Use the fact that $2\frac{1}{2} \div \frac{1}{8} = 20$ to find $2\frac{1}{2} \div \frac{5}{8}$. Explain or show your reasoning.

5. Consider the problem: It takes one week for a crew of workers to pave $\frac{3}{5}$ kilometer of a road. At that rate, how long will it take to pave 1 kilometer?

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

(From Unit 4, Lesson 9.)

6. A box contains $1\frac{3}{4}$ pounds of pancake mix. Jada used $\frac{7}{8}$ pound for a recipe. What fraction of the pancake mix in the box did she use? Explain or show your reasoning. Draw a diagram, if needed.

(From Unit 4, Lesson 7.)

7. Calculate each percentage mentally.

   a. 25% of 400

   a. 75% of 200

   a. 5% of 20

   b. 50% of 90

   b. 10% of 8,000

(From Unit 3, Lesson 14.)