

Additional Practice 9-7

Solve Problems Using Division

Another Look!

Nell participated in a 3-day charity walk. She raised \$0.50 for each $\frac{1}{3}$ mile that she walked. The first day, Nell walked 12 miles. The second day, she walked 8 miles. The third day, she walked 16 miles. How much money did Nell raise?

What do you know?

Nell walked 12 miles, 8 miles, and 16 miles.
She raised \$0.50 for each $\frac{1}{3}$ mile she walked.

What do you need to find?

How much money Nell raised

How can you use what you know to solve the problem?



Write an equation to answer each question.

- a What is the total number of miles Nell walked?

Nell walked $12 + 8 + 16 = 36$, or 36 miles.

- b How many $\frac{1}{3}$ miles did Nell walk?
Nell walked $36 \div \frac{1}{3} = 108$, or 108 one-third miles.

- c How much money did Nell raise?
Nell raised $108 \times \$0.50 = \54 .

Write the equations needed to solve each problem. Then solve.

1. Anna plants peas in $\frac{3}{8}$ of her garden and herbs in $\frac{1}{8}$ of it. She divides the rest of the garden into 6 sections. What fraction of the original garden is each section?

Equations: $1 - \frac{3}{8} - \frac{1}{8} = \frac{1}{2}; \frac{1}{2} \div 6 = \frac{1}{12}$

Answer: Each section is $\frac{1}{12}$ of the original garden.

2. Ryan has 4 cups of grape juice, and Kelsey has 7 cups of lemonade. They want to combine what they have to make punch. How many $\frac{1}{2}$ -cup servings of punch can they make?

Equations: $4 + 7 = 11; 11 \div \frac{1}{2} = 22$

Answer: 22 one-half cup servings of punch

How many steps do you need to solve each problem?



3. **Be Precise** Benjamin is making bow ties. How many $\frac{1}{2}$ -yard-long bow ties can he make if he has 18 feet of fabric?

12 bow ties

4. Cole's rectangular garden has an area of 54 square feet. What could be the dimensions of the garden?

Sample answer: 9 feet by 6 feet

5. One batch of fruit punch contains $\frac{1}{4}$ quart grape juice and $\frac{1}{2}$ quart apple juice. Colby makes 9 batches of fruit punch. How much grape juice did he use for 9 batches?

$2\frac{1}{4}$ quarts

6. **Higher Order Thinking** Ms. James has a 6-square-foot bulletin board and a 12-square-foot bulletin board. She wants to cover both boards with index cards without gaps or overlaps. Each index card has an area of $\frac{1}{4}$ square foot. How many index cards does she need?

72 index cards

7. **Number Sense** Craig has 36 ounces of flour left in one bag and 64 ounces of flour in another bag. Use the Baking Flour Equivalents table to find how many cups of flour Craig has in all.

Baking Flour Equivalents	
Number of Ounces	Number of Cups
16	3.6
10	2.3
8	1.8

Sample answer: 22.6 cups; 23 cups

8. Doris uses 8 square pieces of fabric to make one scarf. Each side of a square piece of fabric is $\frac{1}{4}$ foot in length. Doris can buy large pieces of fabric that are $\frac{1}{4}$ foot long and 2 feet wide. How many large pieces of fabric should she buy to make 7 scarves? Show your work.

7 large pieces of fabric; Sample answer: $2 \div \frac{1}{4} = 8$; 8 pieces from each large piece of fabric, so 1 scarf from each large piece.

Assessment Practice

9. Debbie cut a cord into sixths. She used five of the pieces to make necklaces. She used equal lengths of the remaining cord for each of four bracelets. What fraction of the original cord did Debbie use for each bracelet?

- (A) $\frac{1}{6}$
(B) $\frac{1}{12}$
(C) $\frac{1}{16}$
(D) $\frac{1}{24}$

You can draw a picture to help.

