Name _____

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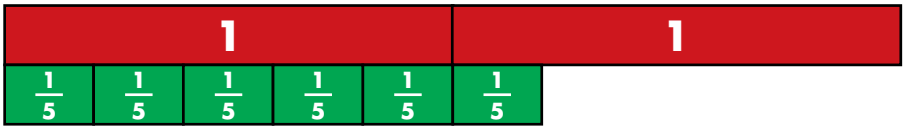
Homework & Practice 10-3

Multiply a Fraction by a Whole Number: Use Symbols

Another Look!

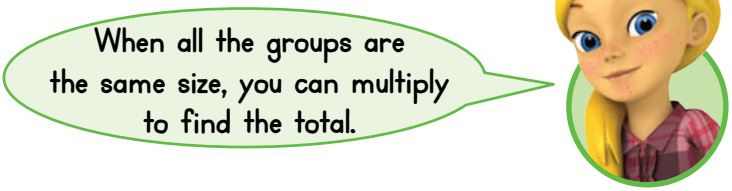
Maria swims $\frac{3}{5}$ mile across the lake and another $\frac{3}{5}$ mile back. How far did Maria swim?



Find $2 \times \frac{3}{5}$.

$2 \times \frac{3}{5} = \frac{2 \times 3}{5} = \frac{6}{5}$ or $1\frac{1}{5}$

Maria swims $1\frac{1}{5}$ miles.



For **1–12**, multiply.

1. $8 \times \frac{5}{12}$

2. $9 \times \frac{1}{4}$

3. $5 \times \frac{3}{5}$

4. $10 \times \frac{5}{6}$

5. $9 \times \frac{3}{10}$

6. $7 \times \frac{1}{3}$

7. $12 \times \frac{1}{5}$

8. $11 \times \frac{7}{8}$

9. $4 \times \frac{2}{3}$

10. $5 \times \frac{7}{8}$

11. $8 \times \frac{5}{6}$

12. $2 \times \frac{2}{8}$

For **13–16**, write and solve a multiplication equation.

13. Calculate the length of a scarf with 5 sections if each section is $\frac{1}{2}$ foot long.

14. Calculate the distance Kris walks in 8 days if she walks $\frac{7}{8}$ mile each day.

15. Calculate the distance Nathan rides his bike if he rides $\frac{9}{12}$ mile each day for 3 days.

16. Calculate the distance Tarryn drives if she drives $\frac{7}{8}$ mile each way to and from work, 5 days a week.

17. **MP.2 Reasoning** Xander has 10 pieces of twine that he is using for a project. If each piece of twine is $\frac{1}{3}$ yard long, how many yards of twine does Xander have? Use properties of operations to solve.

18. The Portman's kitchen table is rectangular. The table is 4 feet wide and 8 feet long. Mrs. Portman bought a tablecloth that will cover 56 square feet. Is the tablecloth large enough to cover the table? Explain.

19. **Number Sense** Olivia is doing her math homework. For each problem, she uses $\frac{3}{4}$ sheet of paper. How many sheets of paper will Olivia need to complete 20 math problems? Use estimation to check if your answer is reasonable.

20. **Math and Science** There are 6 pure spectral colors: red, orange, yellow, green, blue, and violet. Some animals cannot see all of these colors. Bees cannot see orange or red. What fraction of the pure spectral colors can bees see?

21. Write a problem to go along with the multiplication sentence $3 \times \frac{3}{10}$. Then solve your problem.

22. **Higher Order Thinking** Lydia is making 4 loaves of rye bread and 3 loaves of wheat bread. Each loaf takes $\frac{3}{4}$ cup of sugar. How many cups of sugar will Lydia need? Explain.

Common Core Assessment

23. Camille walks $\frac{3}{4}$ mile each day for 8 days. How far does Camille walk? Use each of the numbers from the box once to complete and solve the equation.

$$8 \times \frac{3}{4} = \frac{\square \times \square}{4} = \frac{\square\square}{4} = \square \text{ miles}$$

2	3	4	6	8

24. Corinne has cheer practice $\frac{5}{6}$ hour each day, Monday through Friday. How long does Corinne practice each week? Use each of the numbers from the box to complete and solve the equation.

$$5 \times \frac{5}{6} = \frac{5 \times 5}{6} = \frac{\square\square}{\square} = \square\frac{\square}{6}$$

1	2	4	5	6