



Additional Practice 8-2

Multiply a Whole Number by a Fraction

Another Look!

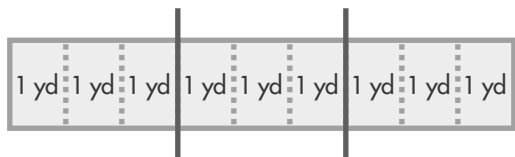
Tyler used $\frac{2}{3}$ of a 9-yard-long piece of fabric to make a jacket. What was the length of fabric, in yards, that he used?

Remember: $\frac{2}{3}$ of 9 means $\frac{2}{3} \times 9$.



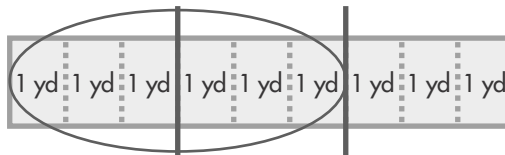
Step 1

Draw 9 pieces each representing 1 yard and separate them into 3 equal groups.



Step 2

Circle 2 of the groups.



So, Tyler used 6 yards of fabric.

Leveled Practice In 1–8, find each product. Use models to help.

1. $\frac{5}{10} \times 5$



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



3. $\frac{5}{6} \times 3$

4. $\frac{5}{6}$ of 12

5. $\frac{3}{5}$ of 20

6. $\frac{2}{3}$ of 8

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

8. $\frac{4}{7} \times 10$



- 9. Critique Reasoning** Find the error in the work below. Then show the correct calculation.

$$\frac{8}{12} \times 6 = 8 \times \frac{1}{12} \times 6 = 8 \times \frac{1}{72} = \frac{8}{72} = \frac{1}{9}$$

- 10.** A scientist measured the amount of rainfall during the afternoon. It rained 0.43 inch each hour. What was the total amount of rainfall in 3 hours?

- 11.** A giraffe can run at a speed of 32 miles per hour. Which animal listed in the chart has a speed that is $\frac{15}{16}$ of the speed of a giraffe? Explain how you found your answer.

DATA	Animal	Speed (in miles per hour)
	Cat	30
	Cheetah	70
	Jackal	35

- 12.** If a frilled lizard is 90 centimeters long, how long is the tail?



The frilled lizard's tail is $\frac{2}{3}$ of its length.

- 13. Higher Order Thinking** Eric has 240 coins in his collection. $\frac{11}{20}$ of the coins are pennies. $\frac{4}{20}$ of the coins are nickels. The rest of the coins are quarters. How many of the coins are quarters? Explain how you found your answer.

Assessment Practice

- 14.** Select all of the equations that would be made true with the fraction $\frac{2}{3}$.

- ☐ ☐ $\times 4 = \frac{8}{3}$
- ☐ ☐ $\times 15 = 12$
- ☐ ☐ $\times 21 = 14$
- ☐ $\frac{1}{6} \times 4 = \square$

- 15.** Select all of the equations that would be made true with the number 14.

- ☐ $\frac{11}{12} \times 12 = \square$
- ☐ $\frac{7}{9} \times 18 = \square$
- ☐ $\frac{3}{8} \times 16 = \square$
- ☐ $\frac{3}{4} \times 12 = \square$