# REVIEW: Multiplying Fractions

Name _____

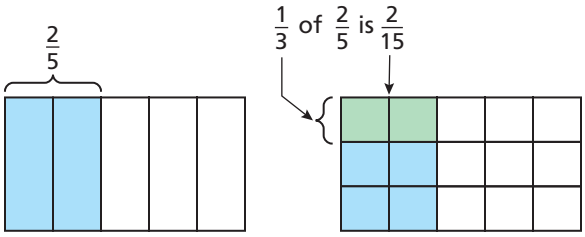
## Key Concept and Vocabulary

Multiply numerators.

$$\frac{1}{3} \cdot \frac{2}{5} = \frac{1 \cdot 2}{3 \cdot 5} = \frac{2}{15}$$

Multiply denominators.


## Visual Model




## Skill Examples

1. $\frac{2}{3} \cdot \frac{1}{4} = \frac{2 \cdot 1}{3 \cdot 4} = \frac{2}{12} = \frac{1}{6}$
2. $\frac{3}{8} \times \frac{2}{9} = \frac{3 \cdot 2}{8 \cdot 9} = \frac{6}{72} = \frac{1}{12}$
3. $\left(\frac{2}{5}\right)\left(\frac{1}{4}\right) = \frac{2 \cdot 1}{5 \cdot 4} = \frac{2}{20} = \frac{1}{10}$
4. $\frac{1}{7} \cdot \frac{3}{5} = \frac{1 \cdot 3}{7 \cdot 5} = \frac{3}{35}$

## Application Example

5. A recipe calls for three-fourths cup of flour. You want to make one-half of the recipe. How much flour should you use?

$$\frac{1}{2} \cdot \frac{3}{4} = \frac{1 \cdot 3}{2 \cdot 4} = \frac{3}{8}$$

∴ You should use $\frac{3}{8}$ cup flour.

## PRACTICE MAKES *PURR*-FECT™

*Check your answers at BigIdeasMath.com.*

**Find the product. Write your answer in simplified form.**

6. $\frac{1}{3} \cdot \frac{2}{7} = \frac{2}{21}$
7. $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$
8. $\frac{1}{10} \cdot \frac{3}{10} = \frac{3}{100}$
9. $\frac{3}{2} \times \frac{2}{5} = \frac{3}{5}$
10. $\frac{3}{8} \times \frac{1}{2} = \frac{3}{16}$
11. $\left(\frac{1}{5}\right)\left(\frac{2}{5}\right) = \frac{2}{25}$
12. $\left(\frac{2}{3}\right)^2 = \frac{4}{9}$
13. $\frac{3}{2} \cdot \frac{2}{3} = 1$
14. $\left(\frac{3}{1}\right)\left(\frac{1}{3}\right) = 1$
15. $2 \cdot \frac{1}{4} = \frac{1}{2}$
16. $3 \times \frac{3}{4} = 2\frac{1}{4}$
17. $\frac{1}{3} \cdot \frac{3}{4} \cdot \frac{4}{5} = \frac{1}{5}$

**Find the area of the rectangle or parallelogram.**

18. $\frac{1}{2}$ ft, $\frac{1}{2}$ ft

Area = $\frac{1}{4}$ ft$^2$

19. $\frac{3}{10}$ cm, $\frac{1}{2}$ cm

Area = $\frac{3}{20}$ cm$^2$

20. $\frac{3}{8}$ in., $\frac{5}{8}$ in.

Area = $\frac{15}{64}$ in.$^2$

21. $\frac{2}{5}$ m, $\frac{3}{5}$ m

Area = $\frac{6}{25}$ m$^2$

22. **OPEN-ENDED** Find three different pairs of fractions that have the same product.

*Sample answer:* $\frac{9}{10} \cdot \frac{5}{6} = \frac{3}{4}$ $\quad \frac{7}{8} \cdot \frac{6}{7} = \frac{3}{4}$ $\quad \frac{4}{5} \cdot \frac{15}{16} = \frac{3}{4}$