

Lesson 6 Multiply Fractions

To multiply fractions, multiply the numerators and multiply the denominators.

$$\frac{5}{6} \times \frac{3}{5} = \frac{5 \times 3}{6 \times 5} = \frac{15}{30} = \frac{1}{2}$$

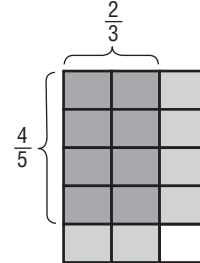
To multiply mixed numbers, rename each mixed number as an improper fraction. Then multiply the fractions.

$$2\frac{2}{3} \times 1\frac{1}{4} = \frac{8}{3} \times \frac{5}{4} = \frac{40}{12} = 3\frac{1}{3}$$

Example 1

Find $\frac{2}{3} \times \frac{4}{5}$. Write in simplest form.

$$\begin{aligned} \frac{2}{3} \times \frac{4}{5} &= \frac{2 \times 4}{3 \times 5} && \leftarrow \text{Multiply the numerators.} \\ &&& \leftarrow \text{Multiply the denominators.} \\ &= \frac{8}{15} && \text{Simplify.} \end{aligned}$$



Example 2

Find $\frac{1}{3} \times 2\frac{1}{2}$. Write in simplest form.

$$\begin{aligned} \frac{1}{3} \times 2\frac{1}{2} &= \frac{1}{3} \times \frac{5}{2} && \text{Rename } 2\frac{1}{2} \text{ as an improper fraction, } \frac{5}{2}. \\ &= \frac{1 \times 5}{3 \times 2} && \text{Multiply.} \\ &= \frac{5}{6} && \text{Simplify.} \end{aligned}$$

Exercises

Multiply. Write in simplest form.

1. $\frac{2}{3} \times \frac{2}{3}$

2. $\frac{1}{2} \times \frac{7}{8}$

3. $-\frac{1}{3} \times \frac{3}{5}$

7. $\frac{3}{4} \times 1\frac{2}{3}$

8. $3\frac{3}{4} \times 1\frac{1}{6}$

9. $4\frac{1}{5} \times \frac{1}{7}$

Lesson 6 Skills Practice

Multiply Fractions

Multiply. Write in simplest form.

1. $\frac{1}{2} \times \frac{4}{5}$

2. $\frac{1}{9} \times \frac{3}{5}$

3. $\frac{15}{24} \times \frac{3}{20}$

7. $\frac{4}{11} \times \frac{3}{8}$

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

9. $\frac{9}{13} \times \frac{26}{27}$

13. $4\frac{1}{2} \times \frac{1}{3}$

14. $5\frac{3}{4} \times 12$

15. $14 \times 2\frac{3}{7}$

19. $10\frac{7}{9} \times 4\frac{1}{4}$

20. $9\frac{7}{9} \times 7\frac{3}{4}$

21. $3\frac{3}{4} \times 2\frac{4}{7}$