

Lesson 6 Reteach

Multiply Fractions

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

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

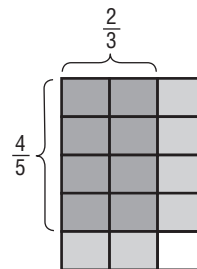
To multiply mixed numbers, rename each mixed number as an improper fraction. Then multiply the fractions.

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

Example 1

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

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



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

2. $\frac{1}{2} \times \frac{7}{8}$ $\frac{7}{16}$

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

4. $\frac{5}{9} \times 4$ $2\frac{2}{9}$

5. $1\frac{2}{3} \times \left(-\frac{3}{5}\right)$ -1

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

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

8. $-3\frac{1}{3} \times \left(-2\frac{1}{2}\right)$ $8\frac{1}{3}$

9. $4\frac{1}{5} \times \frac{1}{7}$ $\frac{3}{5}$

10. $\frac{7}{5} \times 8$ $11\frac{1}{5}$

11. $-2\frac{1}{3} \times \frac{4}{6}$ $-1\frac{5}{9}$

12. $\frac{1}{8} \times 2\frac{3}{4}$ $\frac{11}{32}$

Lesson 6 Skills Practice

Multiply Fractions

Multiply. Write in simplest form.

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

2. $\frac{1}{9} \times \frac{3}{5}$ $\frac{1}{15}$

3. $\frac{15}{24} \times \frac{3}{20}$ $\frac{3}{32}$

4. $-\frac{1}{7} \times \frac{1}{5}$ $-\frac{1}{35}$

5. $\frac{5}{7} \times \frac{14}{15}$ $\frac{2}{3}$

6. $\frac{9}{10} \times \frac{5}{9}$ $\frac{1}{2}$

7. $\frac{4}{11} \times \frac{3}{8}$ $\frac{3}{22}$

8. $\frac{2}{3} \times \frac{7}{9}$ $\frac{14}{27}$

9. $-\frac{9}{13} \times \frac{26}{27}$ $-\frac{2}{3}$

10. $-\frac{4}{9} \times (-5)$ $2\frac{2}{9}$

11. $7 \times \frac{2}{7}$ 2

12. $2\frac{4}{5} \times \frac{1}{3}$ $\frac{14}{15}$

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

14. $5\frac{3}{4} \times 12$ 69

15. $14 \times 2\frac{3}{7}$ 34

16. $2\frac{3}{5} \times 1\frac{3}{7}$ $3\frac{5}{7}$

17. $1\frac{4}{9} \times 2\frac{4}{7}$ $3\frac{5}{7}$

18. $-5\frac{5}{6} \times (-6\frac{3}{8})$ $37\frac{3}{16}$

19. $10\frac{7}{9} \times 4\frac{1}{4}$ $45\frac{29}{36}$

20. $9\frac{7}{9} \times (-7\frac{3}{4})$ $-75\frac{7}{9}$

21. $3\frac{3}{4} \times 2\frac{4}{7}$ $9\frac{9}{14}$