NAME _____ DATE _____ PERIOD _____

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.

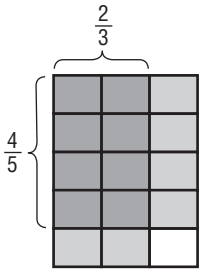
$$2\frac{2}{3} \times 1\frac{1}{4} = \frac{8}{3} \times \frac{5}{4} = \frac{40}{12} = 3\frac{1}{3}$$

Example 1

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

$\frac{2}{3} \times \frac{4}{5} = \frac{2 \times 4}{3 \times 5}$ ← Multiply the numerators. ← Multiply the denominators.

$= \frac{8}{15}$ Simplify.



Example 2

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

$\frac{1}{3} \times 2\frac{1}{2} = \frac{1}{3} \times \frac{5}{2}$ Rename $2\frac{1}{2}$ as an improper fraction, $\frac{5}{2}$.

$= \frac{1 \times 5}{3 \times 2}$ Multiply.

$= \frac{5}{6}$ Simplify.

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

NAME _____ DATE _____ PERIOD _____

Lesson 8 Reteach

Divide Fractions

To divide by a fraction, multiply by its multiplicative inverse or reciprocal. To divide by a mixed number, rename the mixed number as an improper fraction.

Example

Find $3\frac{1}{3} \div \frac{2}{9}$. Write in simplest form.

$3\frac{1}{3} \div \frac{2}{9} = \frac{10}{3} \div \frac{2}{9}$ Rename $3\frac{1}{3}$ as an improper fraction.

$= \frac{10}{3} \cdot \frac{9}{2}$ Multiply by the reciprocal of $\frac{2}{9}$, which is $\frac{9}{2}$.

$= \frac{\cancel{10}^{5}}{\cancel{3}_{1}} \cdot \frac{\cancel{9}^{3}}{\cancel{2}_{1}}$ Divide out common factors.

$= 15$ Multiply.

Exercises

Divide. Write in simplest form.

1. $\frac{2}{3} \div \frac{1}{4}$ **$2\frac{2}{3}$**

2. $\frac{2}{5} \div \frac{5}{6}$ **$\frac{12}{25}$**

3. $-\frac{1}{2} \div \frac{1}{5}$ **$-2\frac{1}{2}$**

4. $5 \div \left(-\frac{1}{2}\right)$ **-10**

5. $\frac{5}{8} \div 10$ **$\frac{1}{16}$**

6. $7\frac{1}{3} \div 2$ **$3\frac{2}{3}$**

7. $\frac{5}{6} \div 3\frac{1}{2}$ **$\frac{5}{21}$**

8. $36 \div 1\frac{1}{2}$ **24**

9. $-2\frac{1}{2} \div (-10)$ **$\frac{1}{4}$**

10. $5\frac{2}{5} \div 1\frac{4}{5}$ **3**

11. $6\frac{2}{3} \div 3\frac{1}{9}$ **$2\frac{1}{7}$**

12. $4\frac{1}{4} \div \frac{2}{8}$ **17**

13. $4\frac{6}{7} \div 2\frac{3}{7}$ **2**

14. $12 \div \left(-2\frac{1}{2}\right)$ **$-4\frac{4}{5}$**

15. $4\frac{1}{6} \div 3\frac{1}{6}$ **$1\frac{6}{19}$**