

SECTION

4B

Ready to Go On? Skills Intervention

4-5 Dividing Fractions and Mixed Numbers

When dividing fractions, you must first rewrite the problem as a multiplication problem. To do this, copy the first fraction, change the division sign to a multiplication sign, and use the **reciprocal** of the second fraction. Then proceed as you would for a multiplication problem.

Vocabulary

reciprocal
multiplicative
inverse

Two numbers are **reciprocals** or **multiplicative inverses** if their product is 1.

Dividing Fractions

Divide. Write the answer in simplest form.

A. $\frac{5}{6} \div \frac{3}{7}$

$\frac{5}{6} \div \frac{3}{7} = \frac{5}{6} \cdot$ Multiply by the reciprocal of $\frac{3}{7}$.

$=$ Is the numerator greater than the denominator? _____

$= 1\frac{17}{18}$ Write the answer as a mixed number in simplest form.

B. $\frac{2}{3} \div 3$

$\frac{2}{3} \div 3 = \frac{2}{3} \cdot$ What is the reciprocal of 3? _____

$=$ Is the numerator greater than the denominator? _____

$=$ Write the answer in simplest form.

Dividing Mixed Numbers

Divide. Write the answer in simplest form.

$6 \div 1\frac{1}{2}$

$6 \div 1\frac{1}{2} = \frac{6}{1} \div$ Write $1\frac{1}{2}$ as an improper fraction. What is the reciprocal of $\frac{3}{2}$? _____

$= \frac{6}{1} \cdot \frac{2}{3}$ Write the division problem as a multiplication problem.

$=$ Multiply the numerators and the denominators.

$= \frac{4}{1} = 4$ Write the answer in simplest form.