## 5-9 Dividing Fractions

## Main IDEA

- Divide fractions.


## BUILD YOUR YOCABULARY (page 115)

Any two numbers whose product is $\square$ are called reciprocals.

## EXAMPLES Find Reciprocals

(1) Find the reciprocal of 7 .


2 Find the reciprocal of $\frac{3}{8}$.

$$
\text { Since } \frac{3}{8} \times \square=1 \text {, the reciprocal of } \frac{3}{8} \text { is } \square \text {. }
$$

## Check Your Progress

Find the reciprocal of each number.
a. 4
b. $\frac{5}{7}$


## EXAMPLES Divide by a Fraction

## Key Concept

Dividing Fractions To divide by a fraction, multiply by its reciprocal.

3 Find $\frac{1}{3} \div \frac{5}{6}$.


Multiply by the reciprocal,

(4) Find $5 \div \frac{1}{6}$.


Check Your Progress
a. $\frac{1}{4} \div \frac{7}{12}$


Divide. Write in simplest form.
b. $3 \div \frac{1}{3}$


## EXAMPLE Divide by a Whole Number

5 RACE A relay race is $\frac{3}{4}$ of a mile long. There are
4 runners in the race. What portion of a mile will each runner run?

Divide $\frac{3}{4}$ into 4 equal parts.
$\frac{3}{4} \div 4=\frac{3}{4} \times \square \quad$ Multiply by the reciprocal.


Each runner will run $\square$ of a mile.

Check Your Progress CRAFTS For a project, Becki needs to cut $\frac{1}{2}$ of a poster board into 5 equal-size pieces. What part of the original poster board is each piece?

## HoMEWORK AssignMent

Page(s):
Exercises:


