

Instructor Intervention

- Before students begin the lesson, review these methods for converting a fraction to a decimal equivalent:

- (a) rewriting the fraction with a denominator that is a power of 10
- (b) using long division to divide the numerator by the denominator
- (c) using a calculator to divide the numerator by the denominator

Make sure students understand why dividing the numerator by the denominator gives you the decimal equivalent for a fraction. For example, to convert $\frac{3}{8}$ to a decimal, you divide both the numerator and the denominator by 8, since doing so will give you a denominator of 1.

$$\frac{3 \div 8}{8 \div 8} = \frac{0.375}{1} = 0.375$$

- Students will discover that some fractions convert to repeating decimals. Emphasize that these numbers can still be compared or ordered, even when all the digits are not visible in the calculator display.
- Make sure students can explain the rules they use to compare fractions with the same numerator or denominator.
- From time to time, students will be offered a choice of methods for solving a problem. You may wish to ask students to complete each problem in all the possible ways.
- The **Examples** show how to use a lowest common denominator (LCD) to compare fractions. To make sure students have the prerequisite skills, ask:
 - (a) What is a lowest common denominator?
 - (b) How do you find the LCD for two fractions?
 - (c) Once you know the LCD, how do you rewrite each fraction with this denominator?

What's the Fraction?

Complete the proper fraction to make the statement true.

$$0.45 < \frac{?}{8} < 0.7$$

Examine the upper and lower boundaries of the inequality. The upper boundary is 0.7, which is less than 1; therefore, you know that the missing numerator cannot be greater than 8.

The lowest boundary, 0.45, is slightly less than 0.5; therefore, the missing numerator will probably not be less than 4.

The missing numerator(s) must lie between 4 and 8. Enter the decimal equivalents of each fraction.

$\frac{4}{8} = 0.5$, $\frac{5}{8} = \square$, $\frac{6}{8} = \square$, $\frac{7}{8} = \square$

Return to Examples menu.

Previous Next

Fractions and Decimals
Ordering Numbers
Examples

MENU
QUIT

Lesson Components

Examples

- Comparing Pairs of Numbers (2)
- Ordering Numbers (2)
- What's the Fraction? (1)

Practice and Problems

- Comparing Decimals
- Comparing Fractions
- Number Lines
- What's the Fraction?
- Ordering Numbers

Extra Practice

- Comparing Pairs of Numbers
- Ordering Numbers
- What's the Fraction?

Self-Check

- Comparing Pairs of Numbers (3)
- Ordering Numbers (3)
- What's the Fraction? (3)

Minimum score: 6 out of 9