Section Overview

Professional Development

Decimals and Fractions — *Lesson 4-4*

Why? To compare numbers, you sometimes need to convert between fraction form and decimal form.

Write 0.27 as a fraction.

The place value of the digit farthest to the right is hundredths, so 0.27 is 27 hundredths.

$$0.27 = \frac{27}{100}$$

Write $\frac{3}{8}$ as a decimal.

Divide 3 by 8 to convert $\frac{3}{8}$ to a decimal.

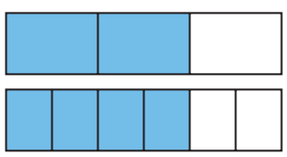
$$\begin{array}{r} 0.375 \\ 8\overline{)3.000} \end{array}$$

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

Equivalent Fractions — *Lessons 4-5*

Why? In order to work with fractions with unlike denominators, you need to know how to write them as equivalent fractions with like denominators.

Equivalent fractions



$$\frac{2}{3} = \frac{4}{6}$$

Find the missing number that makes the fractions equivalent.

$$\frac{3}{4} = \frac{\square}{20}$$

$$\frac{4}{5} = \frac{16}{\square}$$

$$\frac{3 \cdot 5}{4 \cdot 5} = \frac{15}{20}$$

$$\frac{4 \cdot 4}{5 \cdot 4} = \frac{16}{20}$$

Mixed Numbers and Improper Fractions — *Lesson 4-6*

Why? To operate with fractions, you sometimes need to convert between mixed numbers and improper fractions.

Convert the improper fraction $\frac{11}{4}$ to a mixed number:

$$\begin{array}{r} 2\frac{3}{4} \\ 4\overline{)11} \\ -8 \\ \hline 3 \end{array}$$

Divide the numerator by the denominator.

The remainder becomes the numerator, and the divisor remains the denominator.

$$\frac{11}{4} = 2\frac{3}{4}$$

From a mixed number to an improper fraction:

$$2\frac{3}{4} = \frac{4 \times 2 + 3}{4}$$

$$= \frac{11}{4}$$