

3.1.5 Completing the Web

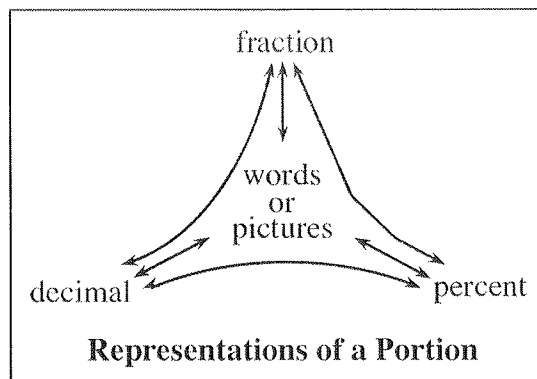


MATH NOTES

METHODS AND MEANINGS

The **Representations of a Portion** web diagram at right illustrates that fractions, decimals, and percents are different ways to represent a portion of a number. Portions can also be represented in words, such as “four-fifths” or “twelve-fifteenths” or with diagrams.

Fraction \Leftrightarrow Decimal \Leftrightarrow Percent



The examples below show how to convert from one form to another.

Decimal to percent:

Multiply the decimal by 100.

$$(0.34)(100) = 34\%$$

Fraction to percent:

Set up an equivalent fraction using 100 as the denominator. The numerator is the percent.

$$\frac{4}{5} \cdot \frac{20}{20} = \frac{80}{100} = 80\%$$

Decimal to fraction:

Use the digits as the numerator. Use the decimal place value as the denominator. Simplify as needed.

$$0.2 = \frac{2}{10} = \frac{1}{5}$$

Percent to decimal:

Divide the percent by 100.

$$78.6\% = 78.6 \div 100 = 0.786$$

Percent to fraction:

Use 100 as the denominator. Use the number in the percent as the numerator. Simplify as needed.

$$22\% = \frac{22}{100} \cdot \frac{1/2}{1/2} = \frac{11}{50}$$

Fraction to decimal:

Divide the numerator by the denominator.

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