

Name Key

Chapter 2 Lesson 3: The Percent Proportion

Student Objective: Students will use the percent proportion.

*A proportion states that two ratios are equal.

*A percent is a ratio of a number to 100.

In a percent proportion, one ratio or fraction compares part of a quantity to the whole quantity. The other ratio is the equivalent percent written as a fraction with a denominator of 100.

$$\frac{\text{part}}{\text{whole}} = \frac{\text{percent}}{100}$$

PERCENT - the number with the percent sign (%).

PART - the number with the word is.

WHOLE - the number with the word of.

Example 1: What percent of 126 is 22?

Step 1. Know that "what" means a variable (the unknown).

Step 2. Identify the percent. Write it as a ratio to 100.

Step 3. Find the of number. That is the denominator of the other ratio.

Step 4. Find the is number. This is the numerator.

Step 5. Cross multiply and divide (if necessary) to solve for the variable!

$$\frac{22}{126} = \frac{P}{100}$$

$$\frac{2200}{126} = \frac{126P}{126}$$

$$P = 17.5\%$$

Example 2: 81 is 56% of what number?

$$\frac{81}{n} = \frac{56}{100}$$

$$\frac{8100}{56} = \frac{56n}{56}$$

$$n = 144.6$$