# Lesson 3 Reteach

## *The Percent Proportion*

A **percent proportion** compares part of a quantity to a whole quantity for one ratio and lists the percent as a number over 100 for the other ratio.

$$\text{part} \longrightarrow \frac{p}{w} = \frac{n}{100} \Big\} \text{ percent}$$
$$\text{whole} \longrightarrow$$

## Example 1

**What percent of 24 is 18?**

$\dfrac{p}{w} = \dfrac{n}{100}$       Percent proportion

Let $n\%$ represent the percent.

$\dfrac{18}{24} = \dfrac{n}{100}$       Write the proportion.

$18 \times 100 = 24 \times n$       Find the cross products.

$1{,}800 = 24n$       Simplify.

$\dfrac{1{,}800}{24} = \dfrac{24n}{24}$       Divide each side by 24.

$75 = n$

So, 18 is 75% of 24.

## Example 2

**What number is 60% of 150?**

$\dfrac{p}{w} = \dfrac{n}{100}$       Percent proportion

Let $n\%$ represent the percent.

$\dfrac{n}{150} = \dfrac{60}{100}$       Write the proportion.

$n \times 100 = 150 \times 60$       Find the cross products.

$100n = 9{,}000$       Simplify.

$\dfrac{100n}{100} = \dfrac{9{,}000}{100}$       Divide each side by 100.

$n = 90$

So, 90 is 60% of 150.

## Exercises

**Find each number. Round to the nearest tenth if necessary.**

**1.** What number is 25% of 20?   **5**

**2.** What percent of 50 is 30?   **60%**

**3.** 30 is 75% of what number?   **40**

**4.** 40% of what number is 36?   **90**

**5.** What number is 20% of 625?   **125**

**6.** 12 is what percent of 30?   **40%**