

Lesson 4 Reteach

The Percent Equation

To solve any type of percent problem, you can use the **percent equation**, $\text{part} = \text{percent} \cdot \text{whole}$, where the percent is written as a decimal.

Example 1

600 is what percent of 750?

600 is the part and 750 is the whole. Let n represent the percent.

$$\text{part} = \text{percent} \cdot \text{whole}$$

$$600 = \frac{n}{100} \cdot 750$$

Write the percent equation.

$$\frac{600}{750} = \frac{750n}{750}$$

Divide each side by 750.

$$0.8 = n$$

Simplify.

$$80\% = n$$

Write 0.8 as a percent. So, 600 is 80% of 750.

Example 2

45 is 90% of what number?

45 is the part and 90% or 0.9 is the percent. Let w represent the whole.

$$\text{part} = \text{percent} \cdot \text{whole}$$

$$45 = 0.9 \cdot w$$

Write the percent equation.

$$\frac{45}{0.9} = \frac{0.9w}{0.9}$$

Divide each side by 0.9.

$$50 = w$$

Simplify. So, 45 is 90% of 50.

Exercises

Write an equation for each problem. Then solve. Round to the nearest tenth if necessary.

1. What percent of 56 is 14?

2. 36 is what percent of 40?

3. 80 is 40% of what number?

4. 65% of what number is 78?

5. What percent of 2,000 is 8?

6. What is 110% of 80?

7. 85 is what percent of 170?

8. Find 30% of 70.