

Lesson 6-6

Example 1

Find a commission on a sale of \$980 if the commission rate is 6%.

Solution

$$\frac{x}{980} = \frac{6}{100}$$

Use a proportion.

$$x \cdot 100 = 980 \cdot 6$$

Use the cross products.

$$\frac{100x}{100} = \frac{5880}{100}$$

$$x = 58.80$$

The commission is \$58.80.

Example 2

A salesperson receives a base salary of \$375/wk and a commission rate of 4%. Find the weekly income if the sales are \$5680.

Solution

$$\frac{x}{5680} = \frac{4}{100}$$

Use a proportion.

$$x \cdot 100 = 5680 \cdot 4$$

$$\frac{100x}{100} = \frac{22,720}{100}$$

$$x = 227.20$$

$$x = 5680 \cdot 4\%$$

Use an equation.

$$x = 5680 \cdot 0.04$$

$$x = 227.20$$

The commission is \$227.20.

Find the salesperson's weekly income.

$$\$227.20 + \$375.00 = \$602.20$$

His weekly income is \$602.20.

Example 3

A realtor receives a commission of \$2175 for selling a condominium for \$87,000. What is her commission rate?

Solution

Let x = the commission rate.

$$\begin{array}{l} \frac{x}{100} = \frac{2175}{87,000} \quad \text{Use a proportion.} \\ x \cdot 87,000 = 100 \cdot 2175 \\ \frac{87,000x}{87,000} = \frac{217,500}{87,000} \\ x = 2.5 \end{array} \quad \begin{array}{l} 2175 = 87,000 \cdot x \quad \text{Use an equation.} \\ \frac{2175}{87,000} = \frac{87,000x}{87,000} \\ 0.025 = x \end{array}$$

The commission rate is 2.5%.