

# **LESSON** **Interactive Study Guide** **9-8 Solving Integer Equations**

## **Adding and Subtracting to Solve Equations**

Solve each equation.

**A.**  $5 + x = -3$

$$\begin{array}{rcl} 5 + x & = & -3 \\ \underline{\hspace{1cm}} & = & \underline{\hspace{1cm}} \\ & x = & \underline{\hspace{1cm}} \end{array}$$

What is added to  $x$ ? \_\_\_\_\_

What will you subtract from both sides to undo the addition? \_\_\_\_\_

**B.**  $t - 4 = -2$

$$\begin{array}{rcl} t - 4 & = & -2 \\ \underline{\hspace{1cm}} & & \underline{\hspace{1cm}} \\ t & = & \underline{\hspace{1cm}} \end{array}$$

What is subtracted from  $t$ ? \_\_\_\_\_

What will you add to both sides to undo the subtraction? \_\_\_\_\_

**C.**  $x - 4 = -12$

$$\begin{array}{rcl} x - 4 & = & -12 \\ \underline{\hspace{1cm}} & & \underline{\hspace{1cm}} \\ x & = & \underline{\hspace{1cm}} \end{array}$$

What is subtracted from  $x$ ? \_\_\_\_\_

What will you add to both sides to undo the subtraction? \_\_\_\_\_

## **Multiplying and Dividing to Solve Equations**

Solve each equation.

**A.**  $-5g = 20$

$$\frac{-5g}{\underline{\hspace{1cm}}} = \frac{20}{\underline{\hspace{1cm}}}$$

$$g = \underline{\hspace{1cm}}$$

What is  $g$  multiplied by? \_\_\_\_\_

What will you divide both sides by to undo the multiplication? \_\_\_\_\_

**B.**  $\frac{f}{-6} = -5$

$$\underline{\hspace{1cm}} \cdot \frac{f}{-6} = \underline{\hspace{1cm}} \cdot -5$$

$$f = \underline{\hspace{1cm}}$$

What is  $f$  divided by? \_\_\_\_\_

What will you multiply both sides by to undo the division? \_\_\_\_\_

**C.**  $j \div 7 = -8$

$$\underline{\hspace{1cm}} \cdot \frac{j}{7} = \underline{\hspace{1cm}} \cdot -8$$

$$j = \underline{\hspace{1cm}}$$

What is  $j$  divided by? \_\_\_\_\_

What will you multiply both sides by to undo the division? \_\_\_\_\_