

# 2.2

## Addition Property of Equality: Problem Type 2

### • Example 1

Solve

$$x + 7 = -2$$

Our goal is to isolate the variable  $x$  by using the Addition Property. In this case, we subtract 7 from both sides of the equation.

$$\begin{array}{r} x + 7 = -2 \\ -7 \quad -7 \\ \hline x \quad = -9 \end{array}$$

Since  $-9$  is the solution for the equivalent equation  $x = -9$ , it is the solution for our original equation.

### ● ● ● CHECK YOURSELF 1

Solve.

**a.**  $x + 5 = 4$

**b.**  $x + 14 = -20$

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### ● ● ● CHECK YOURSELF ANSWER

1. (a)  $-1$ ; (b)  $-34$ .

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# 2.2 Exercises

Name \_\_\_\_\_

Section \_\_\_\_\_

Date \_\_\_\_\_

## A N S W E R S

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

4. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

Solve and check the following equations.

1.  $x + 8 = -10$

2.  $x + 4 = -3$

3.  $x + 5 = -4$

4.  $x + 7 = 2$

5.  $x + 5 = 19$

6.  $x + 12 = 7$

7.  $x + 2 = -3$

8.  $x + 4 = 16$

9.  $x + 9 = 4$

10.  $x + 2 = 7$

11.  $23 = x + 7$

12.  $-4 = x + 16$