

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.

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

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. $x + 14 = -20$

● ● ● CHECK YOURSELF ANSWER

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

2.2 Exercises

Name _____

Section _____

Date _____

A N S W E R S

1. _____

2. _____

3. _____

4. _____

4. _____

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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. $-4 = x + 16$