

SECTION

1B

Ready to Go On? Skills Intervention**1-9 Solving Equations by Adding**

Addition and subtraction are inverse operations. When an equation contains subtraction, you can use addition to “undo” the subtraction. Remember to add to both sides of the equation.

Solving Equations by Adding

Solve the equation. Check your answer.

A. $y - 5 = 3$

$$y - 5 = 3$$

$$y = \underline{\hspace{2cm}}$$

Check: $y - 5 = 3$

$$\underline{\hspace{2cm}} - 5 \stackrel{?}{=} 3$$

$$3 \stackrel{?}{=} 3$$

What number is subtracted from y ? _____

What operation will you perform to “undo” the subtraction? _____

Add.

What number will you substitute into the equation for y ?

Are the two numbers equal? _____

_____ is the solution.

B. Matthew is 19 years old. He is eight years younger than his brother. How old is his brother? Let b stand for his brother’s age.

$$b - \underline{\hspace{2cm}} = 19$$

$$b - \underline{\hspace{2cm}} = 19$$

$$b = \underline{\hspace{2cm}}$$

Check: $b - 8 = 19$

$$\underline{\hspace{2cm}} - 8 \stackrel{?}{=} 19$$

$$19 \stackrel{?}{=} 19$$

What equation can you use to find his brother’s age?

What number is subtracted from b ? _____

What number will you add to both sides to

“undo” the subtraction? _____

Add.

What number will you substitute into the equation for b ?

Are the two numbers equal? _____

_____ is the solution.

Matthew’s brother is _____ years old.

SECTION

1B

Ready to Go On? Problem Solving Intervention**1-9 Solving Equations by Adding**

You can solve some problems by representing the situation with an equation.

You cut 14 inches off a board and then you cut off 22 inches more. If you're left with a board 2 feet long, how many feet long was the board before you cut it?

Understand the Problem

1. What are you being asked to find?

2. How many inches is 2 feet? _____

Make a Plan

3. Why could you use an equation with subtraction to model the situation described in the problem?

Solve

4. Write an equation to relate the lengths of the pieces described in the problem. Let d stand for the original length of the board.

5. Solve the equation to solve the problem.

Check

6. Look back at the question being asked and answer it.

Write and solve an equation to solve each problem.

7. After 2 feet were cut from a board, the remaining piece was 30 inches long. What was the original length of the board?

8. You started with \$36 and now have \$9. You bought a shirt for \$13 and a pair of shorts. How much did the shorts cost?
