

SECTION 4C **Ready to Go On? Skills Intervention**
4-10 Solving Equations Containing Decimals

Solving an equation with decimals is exactly like solving an equation with whole numbers. To isolate the variable, use inverse operations.

$$x - 3.2 = 7.56$$

The variable is **not** isolated.

$$x = 7.56 + 3.2$$

The variable **is** isolated.

Solving Equations by Adding or Subtracting

Solve.

A. $a - 12.32 = 13$

$$a - 12.32 = 13$$

$$\underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$a + 0 = 25.32$$

What do you add to both sides to isolate the variable?

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

Solve for a .

B. $x + 42.271 = 50.41$

$$x + 42.271 = 50.41$$

$$\underline{\hspace{2cm}} \quad \underline{\hspace{2cm}}$$

$$x + 0 = 8.139$$

What do you subtract from both sides to isolate the variable?

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

Solve for x .

Solving Equations by Multiplying or Dividing

Solve.

A. $\frac{y}{1.3} = 3.9$

$$\underline{\hspace{2cm}} \cdot \frac{y}{1.3} = 3.9 \cdot \underline{\hspace{2cm}}$$

What do you multiply both sides by to isolate the variable?

$$y = 5.07$$

Solve for y .

B. $12 = 1.6m$

$$\frac{12}{\underline{\hspace{1cm}}} = \frac{1.6m}{\underline{\hspace{1cm}}}$$

What do you divide both sides by to isolate the variable?

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

Solve for m .

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

SECTION

4C

Ready to Go On? Problem Solving Intervention

4-10 Solving Equations Containing Decimals

You can write and solve two decimal equations for a single problem.

Last year Sonia’s mean test score in math was 90.5. So far this year, her test scores in math are 92, 86, 80, and 98. What score does she need on her next test to bring her mean up to at least last year’s level?

Understand the Problem

1. How do you find the mean of a set of data values? _____

Make a Plan

2. If you knew what the sum of all five test scores needs to be, how could you find what Sonia’s fifth score needs to be?

3. Write a word equation that relates the sum of the 5 scores and the mean for those scores.

4. Rewrite your equation using 90.5 for the mean and s for the sum.

Solve

5. Solve the equation you wrote in Exercise 4 to find s (the sum of the 5 scores).

6. What is the total of Sonia’s 4 test scores so far? _____

7. Solve the equation $x + 356 = 452.5$ to find x , the score Sonia needs on her next test.

Check

8. Explain why your answer is reasonable.
