

Guided Practice

Solve each equation. Check your solution. (Example 1)

1. $y + 7 = 10$ 3

2. $10 = 6 + e$ 4

3. A board that measures 19.5 meters in length is cut into two pieces. One piece measures 7.2 meters. Write and solve an equation to find the length of the other piece. (Example 2)

$x + 7.2 = 19.5$; 12.3 m

4. It takes 43 facial muscles to frown. This is 26 more muscles than it takes to smile. Write and solve an equation to find the number of muscles it takes to smile. (Example 3)

$x + 26 = 43$; 17 muscles

5.  **Building on the Essential Question** How can the Subtraction Property of Equality be used to solve addition equations?

Sample answer: It allows you to subtract the same number from each side of the equation.

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Independent Practice

Go online for Step-by-5

Solve each equation. Check your solution. (Example 1)

1 $c + 3 = 6$ 3

2. $9 = 2 + x$ 7

3. $7 + a = 9$ 2

Show
your
work. →

4. Zacarias and Paz together have \$756.80. If Zacarias has \$489.50, how much does Paz have? Write and solve an addition equation to find how much money belongs to Paz. (Example 2) $489.50 + p = 756.80$; \$267.30

- 5 The average length of a King Cobra is 118 inches, which is 22 inches longer than a Black Mamba. Write and solve an addition equation to find the average length of a Black Mamba. (Example 3) $m + 22 = 118$; 96 in.

6. **CCSS Model with Mathematics** Refer to the graphic novel frame below for Exercises a–b.

The graphic novel frame features a yellow sign with the text "READING REWARD" in red, followed by "50 points = Pizza Party" in red. Below the sign is a table with two columns: "ITEM READ" and "POINTS". The table lists three items: "Book" with 5 points, "Magazine" with 1 point, and "Newspaper" with 1 point. To the right of the sign is a speech bubble containing the text: "Remember, I need 50 points for the pizza party."

ITEM READ	POINTS
Book	5
Magazine	1
Newspaper	1

- a. If Mei has already earned 30 points, write and solve an addition equation to find the number of points she still needs.
 $30 + p = 50$; 20 points
- b. Suppose Julie has already earned 36 points. Write and solve an addition equation to find the number of points she still needs to earn the pizza party. **$36 + p = 50$; 14 points**

Solve each equation. Check your solution.

7. $a + \frac{1}{10} = \frac{5}{10} \frac{2}{5}$

8. $m + \frac{1}{3} = \frac{2}{3} \frac{1}{3}$

9. $\frac{3}{4} = x + \frac{1}{2} \frac{1}{4}$

10. $\frac{7}{8} = y + \frac{1}{4} \frac{5}{8}$



H.O.T. Problems Higher Order Thinking

11. **CCSS Reason Inductively** Write two different addition equations that have 12 as the solution. Sample answers: $56 = 44 + x$; $36 = 24 + m$

12. **CCSS Persevere with Problems** In the equation $x + y = 5$, the value for x is a whole number greater than 2 but less than 6. Determine the possible solutions for y . 0, 1, 2

13. **CCSS Which One Doesn't Belong?** Identify the equation that does not belong with the other three. Explain your reasoning.

$$6 + x = 9$$

$$15 = x + 12$$

$$x + 9 = 11$$

$$7 + x = 10$$

$x + 9 = 11$; The solution for the other equations is 3.

14. **CCSS Find the Error** Melody is solving the equation $x + 12 = 31$. Find her mistake and correct it.

$$\begin{array}{r} x + 12 = 31 \\ + 12 = +12 \\ \hline x = 43 \end{array}$$

Sample answer: She should have subtracted 12 from each side; 19

15. **CCSS Reason Abstractly** Suppose $x + y = 13$ and the value of x increases by 4. If their sum remains the same, what must happen to the value of y ?

The value of y decreases by 4.

