

Name _____

Date _____

LESSON 2.3

Practice B

Solve the equation.

1. $3n + 14 = 35$

2. $7y - 10 = 11$

3. $14 = 9 - x$

4. $9c - 5 = 13$

5. $4.6 = 4m - 3.4$

6. $1.2 = 2.4 - 3b$

7. $\frac{p}{6} + 9 = 14$

8. $\frac{w}{7} - 2 = 9$

9. $\frac{z}{3} - 8 = -4$

Write an equation for the function described. Then find the input.

10. The output of a function is 5 more than 2 times the input. Find the input when the output is 17.

11. The output of a function is 10 more than 4 times the input. Find the input when the output is -26 .

12. The output of a function is 14 less than 6 times the input. Find the input when the output is 22.

Solve the equation.

13. $9a + 4a = 26$

14. $14y - 6y = 48$

15. $38 = 26x - 7x$

16. $16x - 3x = -52$

17. $-9 = 11m - 8m$

18. $4.5z - 2.5z = 24$

- 19. Yoga Class** A fitness center offers yoga classes for \$10 per class and sells yoga mats for \$19.95. A person paid a total of \$139.95 to the fitness center for yoga classes and a mat. Find the number of yoga classes the person took.
- 20. Library Books** Your school has a \$1200 grant to buy books and magazine subscriptions for the school library. The average cost of a magazine subscription is \$30. Your school decides to spend \$870 on books and the remaining amount on magazine subscriptions. How many magazine subscriptions can the school buy?
- 21. Walking** You have already walked 5 miles of an 18-mile trail. If you walk the rest of the trail at a pace of 1 mile in 17 minutes, how many hours will it take you to finish the trail? Use the following verbal model to answer the question. Round your answer to the nearest tenth.

$$\begin{array}{|c|} \hline \text{Walking rate} \\ \hline \text{(mi/min)} \\ \hline \end{array} \cdot \begin{array}{|c|} \hline \text{Number of} \\ \text{minutes (min)} \\ \hline \end{array} + \begin{array}{|c|} \hline \text{Number of miles} \\ \text{already walked (mi)} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Total number of} \\ \text{miles walked (mi)} \\ \hline \end{array}$$

- 22. Swimming Pool** The capacity of a small children's swimming pool is 106 gallons of water. There are currently 15 gallons of water in the pool. You are filling the pool with water at a rate of 2 gallons per minute.
- Write an equation that gives the amount y (in gallons) of water in the pool as a function of the number x of minutes from now.
 - After how many minutes will the pool be full?