

6.3 Writing Two-Step Equations

Practice and Problem Solving: D

Model each two step equation by drawing algebra tiles.

The first one is done for you.

1.
$$2p + 3 = 7$$



3.
$$-q - 3 = 7$$

Write an equation for each word problem. The first one is done for you.

- 4. The sum of three times a number *d* and 5 is 17. What is the number?
- 5. As a membership fee, a health club charges a one-time amount of \$40 and charges \$25 for each month. The total fee after *m* months is \$240. What is the value of *m*?
- 6. A runner warms up for ten minutes and then takes seven minutes to run each mile. The total time after *r* miles is 45 minutes. How many miles are run?

6.4 Solving Two-Step Equations

Practice and Problem Solving: D

Tell how to solve each two-step equation. Then solve it. The first one is done for you.

1.
$$5x + 3 = 33$$

2. 8y - 1 = 31

3.
$$\frac{1}{2}z + 5 = 11$$

4. 15 - 4t = 3

5.
$$\frac{1}{3}(q+3)=5$$

Solve. Check each answer.

6.
$$2m + 7 = 9$$

7.
$$3p - 5 = 19$$

Write an equation to represent the problem. Then solve the problem. The first one is done for you.

8. When 3 is subtracted from two times a number, the result is 17. What is the number?

9. The sum of half a number and 5 is 9. What is the number?

10. The sum of 15 and two times a number is 29. What is the number?
