



## 1-3 Additional Practice

### Solving Equations with a Variable on Both Sides

Identify whether no, one, or infinitely many solutions exist for each equation. If a solution exists, determine the value.

1.  $4y - 7 + 2y = -3(y - 1) - 1$

2.  $-(5a + 6) = 2(3a + 8)$

3.  $-8x - (3x + 6) = 4 - x$

4.  $14 + 3n = 8n - 3(n - 4)$

5.  $2(4t + 1) = 6t + 5 + 2t - 3$

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

7.  $-6(-p + 8) = -6p + 12$

8.  $\frac{1}{2}r + 6 = 3 - 2r$

Solve each problem.

9. A movie club charges a one-time membership fee of \$25. It allows members to purchase movies for \$7 each. Another club does not charge a membership fee and sells movies for \$12 each. How many movies must a member purchase for the total cost of the two clubs to be equal?
10. How many pounds of cashews that cost \$14 per pound must be mixed with 5 pounds of peanuts that cost \$6.50 per pound to make mixed nuts that cost \$10.25 per pound?