

**Worksheet 5-4: Solving Equations with Variables on Both Sides**

Solve.

1.  $5z + 4 = 3z - 6$

2.  $4y - 23 = 10 + y$

3.  $9 - 4m = 2m - 3$

4.  $5x - 4 = 7x + 20$

5.  $8 - x = x - 4$

6.  $-3a + 1 = 2a + 11$

7.  $4w + 1 = 9w - 19$

8.  $x - 3 = 5 - x$

9.  $3(2 - k) = 10 + k$

10.  $3(x + 6) = 2(x - 1)$

11.  $4(3g - 5) = -2(46 + 3g)$

12.  $2y - 3(-1) = 6 - 4y$

13.  $3(x - 1) + 1 = 5(x - 2)$

14.  $1 - (2 + w) = w + 5$

15.  $2m - 5 = -3(m - 2) - 8$

16.  $-3(a + 3) = 2a + 2(9 - a)$

Answers: 9. -1; 10. -20; 11. -4; 12. 0.5 or  $\frac{1}{2}$ ; 13. 4; 14. -3; 15. 0.6 or  $\frac{3}{5}$ ; 16. -9