

**Lesson #6 B: Solving Multi-Step Equations and Equations with Variables on Both Sides  
(Reference: Lesson #19, #21, #23, #26 & #28 in book)****Problem**

1. Solve each of the following equations for the indicated variable. (SHOW ALL OF YOUR WORK.)

1.  $3 + x - 10 + 4x = 28$

2.  $-2(x - 2) + x = 16$

3.  $6x + 2(7 - x) + 10 = 20$

4.  $\frac{3}{4} + \frac{1}{2}x + 2 = 0$

5.  $-3(m - 4) + 2(5 + 2m) = 29$

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

7.  $6x - 8 = 12 + 5x$

8.  $4x + 6 + 2x - 3 = 9 + 5x - 4$

9.  $3(4x - 2) + 5x = 30 - x$

10.  $8(1 + 5x) + 5 = 13 + 5x$

11.  $5(4x - 2) = -2(3 + 6x)$

12.  $4(8 - 3t) = 32 - 8(t + 2)$

13.  $3x + 4(2 - 2x) = 3(5x + 1) - 15$

14.  $4x + 4(x + 4) = 2(3x + 6)$

15.  $5(2x + 6) = -4(-5 - 2x) + 3x$

16.  $-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$