

2.2 - Solving Multi-Step Equations

1. $y - 7 + 4y = 13$

$$5y - 7 = 13$$

$$5y = 20$$

$$y = 4$$

2. $3(a - 5) + 19 = -2$

$$3a - 15 + 19 = -2$$

$$3a + 4 = -2$$

$$3a = -6$$

$$a = -2$$

3. $-9 - 3(2r - 1) = -18$

$$-9 - 6r + 3 = -18$$

$$-6r - 6 = -18$$

$$-6r = -12$$

$$r = 2$$

4. $(x - 3) - (x - 5) + 2x = 0$

$$x - 3 - x + 5 + 2x = 0$$

$$2x + 2 = 0$$

$$2x = -2$$

$$x = -1$$

5. $5(g - 7) + 2[g - 3(g - 5)] = 0$

$$5g - 35 + 2[g - 3g + 15] = 0$$

$$5g - 35 + 2[-2g + 15] = 0$$

$$5g - 35 - 4g + 30 = 0$$

$$g - 5 = 0$$

$$g = 5$$