

Some quick notes:

## Solving Equations 8 (II)

Using the Distributive Property of Multiplication

Name: Key

1)  $10 + 6(x - 4) = 4(x + 1)$

$$10 + 6x + -24 = 4x + 4$$

$$6x + -14 = 4x + 4$$

$$-4x + 14 \quad -4x + 14$$

$$\frac{2x}{2} = \frac{18}{2}$$

$$x = 9$$

3)  $9x - 90 = 18(4x - 5)$

$$9x + -90 = 72x + -90$$

$$-9x + 90 \quad -9x + 90$$

$$\frac{0}{63} = \frac{63x}{63}$$

$$x = 0$$

2)  $5(x - 2) = 6 + x$

$$5x + -10 = x + 6$$

$$-x + 10 \quad -x + 10$$

$$\frac{4x}{4} = \frac{16}{4}$$

$$x = 4$$

4)  $4(x + 1) = 8x - 8$

$$4x + 4 = 8x + -8$$

$$-4x + 8 \quad -4x + 8$$

$$\frac{12}{4} = \frac{4x}{4}$$

$$x = 3$$

$$5) 5 - (x + 3) = -1 + 7(x - 3)$$

$$5 + -x + -3 = -1 + 7x + -21$$

$$-x + 2 = 7x + -22$$

$$+x \quad +22 \quad +x \quad +22$$

$$\frac{24}{8} = \frac{8x}{8}$$

$$x = 3$$

$$7) \frac{1}{2}(10 - 8x) = x$$

$$5 + -4x = x$$

$$+4x \quad +4x$$

$$\frac{5}{5} = \frac{5x}{5}$$

$$x = 1$$

$$6) 3(x + 4) = 2(x - 2)$$

$$3x + 12 = 2x + -4$$

$$-2x \quad -12 \quad -2x \quad -12$$

$$x = -16$$

$$8) 2(x + 1) = 3x + 7$$

$$2x + 2 = 3x + 7$$

$$-2x \quad -7 \quad -2x \quad -7$$

$$-5 = x$$

$$x = -5$$