**Solving Linear Equations**

* To solve a linear equation, you must “undo” the operation that is being done to the variable
* Goal🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Keep the equation balanced! This means..\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Check by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1) -4x = 16 2) 6x – 9 = 35 + 2x 3) -2(2x + 9) = -54

4) $\frac{5}{4}$x – 7 =3 5) 5x – 2(3 – x) = -(4 – x) 6) -3(5 – 4x) = 12x

**Mathematical Formulas**

* Solve for the indicated variable

7) A = $\frac{1}{2}bh$ Solve for h. 8) C = 2πr Solve for r.

**Linear Inequalities**

* When solving linear inequalities, solve like an equation but….
* When \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ by a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, you MUST

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

$$>$$

$$\geq $$

$$<$$

$$\leq $$

* When graphing, an *open* dot is used for \_\_\_\_\_\_\_\_\_\_\_\_\_.

 a *closed* dot is used for \_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 11y – 9 > 13 10) 2x - 9 $\leq $ 6x - 1