

**Unit #2 Part #2 Test Review-Unit Review Assignment #2-Solving-Graphing One and Two Variable Inequalities (Reference: Lessons #45, #50, #66, #70, #73, #77, #81, #82 & #97 in book)****Problem**

1. For each of the following inequalities, solve the inequality for the given variable and then graph the inequality, and give me the solution set in interval notation.

1.  $-x + 4 + 7x \leq -2 + 3x + 6$

2.  $5(x + 3) - 6x \leq 3(2x + 1) - 4x$

3.  $2(x - 5) + 3x < 4(x - 6) + 1$

4.  $-\frac{1}{3}(6x - 12) - 8 < \frac{1}{4}(4x + 8) - 2x$

5. For each of the following compound inequalities, please solve the inequality, graph the inequality, and give me the solution set for the inequality in interval notation.

5.  $-6 \leq 2(x + 2) \leq 16$

6.  $-8 < -4(2x - 2) + 12x + 4 < 16$

7.  $-36 \leq -18x - 54$  or  $-4(4 - x) \geq 20$

8.  $9x - 12 - 18x + 24 < 30$  or  $62 < -2(2x + 2) - 8x + 18$

9. For each of the following inequalities, please graph the inequalities and shade the solution region of the inequality on the coordinate plane.

9.  $y \leq -3x + 1$

10.  $-8x + 4y > -12$

11.  $-2x + 3y < -9$

12.  $-6x + 12y > -24$