Math A2 Homework Week of October 1-5

Monday, October 1 – Study for test Tomorrow. Use the review sheet as a guide of topics to study.

Tuesday, October 2 – Test Today

Topics Include – Translating Verbal Statements and Solving Equations
Solving an inequality and Graphing on a Number Line
Solving Systems of Equations – Graphically, Addition/Elimination, Substitution

Wednesday, October 3

1. Graph the following linear inequalities:

   a. $y > 3x - 4$ b. $y \le -\frac{1}{2}x + 6$ c. $y < \frac{2}{3}x - 5$

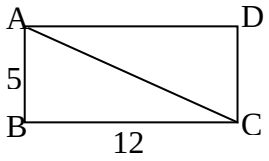
2. Graph the following system of inequalities. Label your solution set *S*: $y \le 2x - 6$
   $y < -x + 9$
3. Eight subtracted from three times a number results in two times the quantity of the number reduced by three. What is the number?
4. Solve for x: $0.03x + 7.2 = 8.34$
5. Solve the following system of equations using the substitution method: $3y + 2x = 6$
   $y = x - 3$

Thursday, October 4

1. Solve the following system of inequalities graphically and label your solution set *S*.

   a. $y \ge -2x + 6$, $y < 3x + 4$ b. $y > \frac{1}{2}x - 2$, $y > -1x + 1$ c. $y > x + 4$, $y \le -x$

2. Half a number, increased by two results in eight. What is the number?
3. Express as a trinomial: $(2x + 4)(x - 3)$
4. Ms. Black bought 2 pounds of veal and 3 pounds of pork, for which she paid $20.00. Mr. Cook, paying the same prices, paid $11.25 for 1 pound of veal and 2 pounds of pork. Find the price of a pound of veal and the price of a pound of pork.
5. If the perimeter of a square is 32, find the area of the square.
6. In the accompanying diagram of rectangle ABCD, AB = 5, and BC = 12. What is the length of $\overline{AC}$?



Friday, October 5

1. Simplify each expression:
   a. $(4x^2 - 3x + 2) + (6x^2 + 3x - 10)$
   b. $(3x^2 - 2x + 6) - (x^2 - 5x + 3)$
   c. $(x^2 - 7xy + 3y^2) + (-2y^2 + 3x^2 - 4xy) + (xy - 2x^2 - 4y^2)$
2. Subtract $(2x^2 + 5x - 2)$ from $(x^2 + x - 5)$
3. From $(3x^2 - 6x + 3)$ subtract $(2x^2 - 3x - 5)$
4. Solve the following system of equations for x and y: $2x - 3y = 16$
   $3x + y = 13$
5. Solve for x and graph on a number line: $3x - 8 > 2(x + 2)$
6. Graph the following system of inequalities and label your solution set S. $y > 2x - 5$
   $y \ge -x + 4$