Exam 2 Review

Note: This is not a complete list of topics – you should study your lecture notes and homework in addition to reviewing the items listed here.

- 1. vocabulary
 - a. coefficient
 - b. term
 - c. degree
 - d. solution set
- 2. solving linear equations
- 3. formulas to know:
 - a. simple interest: i = prt
 - b. distance: $dist = rate \cdot time$
- 4. problem-solving strategy
 - a. draw a picture (if applicable)
 - b. write down the given information
 - c. define a variable for the quantity you're looking for
 * if you're looking for *two* quantities, pick one for the variable
 - d. look for a total or a situation where two quantities are equal write a rough equation
 - e. write an algebraic equation and solve it
 - f. ask yourself if your solution makes sense

For distance problems and problems where you have two types of items, tickets, etc. – try making a table.

distance problems:

cost/item problems:

-	rate	*	time	=	dist		# items	* cost/item	= total
person 1						item 1			
person 2						item 2			

5. solving inequalities

same rules as solving equations, but you change the direction of the inequality when multiplying or dividing by a negative

6. equations and inequalities with absolute values

a.
$$|x| = a \implies \begin{cases} x = a \\ x = -a \end{cases}$$

b. $|x| < a \implies -a < x < a$
c. $|x| > a \implies \begin{cases} x > a \\ x < -a \end{cases}$
d. $|x| = |y| \implies \begin{cases} x = y \\ x = -y \end{cases}$