***You will need a graphing calculator for this lesson!***

**How to solve and equation graphically**

This is one of the most powerful tools you will have when solving any math problem that involves solving an equation.

How to do this

Step 1: click the “y =” button

Step 2: type in the left side of the equation into “Y1”

Step 3: type in the right side of the equation into “Y2”

Step 4: press the “graph” button

Step 5: press “2nd” button followed by the “trace” button

Step 6: press “#5 intersect”

Step 7: using the arrows move the cursor to the point where the two graphs intercept each other, then press “enter”.

Step 8: the curser will then move to the other line, using the arrows move the cursor to the point where the two graphs intercept each other, then press “enter”

Step 9: the calculator will say “guess” press enter

Step 10: the calculator will say “answer” press enter, the x = and y = at the bottom of the screen is the ordered pair that represents the solution.

\*\*\*If there are more than one intersection points you will need to repeat steps 6 – 10 for each point. \*\*\*

Solve the following equations graphically

1. $3x+2=8$

2. 2x2 – 1 = 6

3. $\left|x-2\right|+3=7$

4. 2x – 1 = 5

5. 2x – 1 = 13