EXAMPLE

Solve the system of equations using the graphical method by using MS Excel.

Remember, all computer programs graph using sets of coordinate pairsl.

Steps:
1. put all equations in function form [y = mx + b]
2. Create the DOMAIN - usually -10,-9, -8, ..., 10 in an Excel column
3. Write the function in an adjacent column
4. Use MS Excel line graph tool(s)
5. Graphically identify the line intersection.

Domain	Range	
x	$y1 = 3^*x + 4$	$y2 = -2^*x + 13$
-10	-26	33
-9	-23	31
-8	-20	29
7	17	27
-6	-14	25
5	11	23
-4	-8	21
3	5	19
-2	-2	17
1	1	15
0	4	13
1	7	11
2	10	9
3	13	7
4	16	5
5	19	3
6	22	1
7	25	-1
8	28	-3
9	31	-5
10	34	-7

My First Chart — chart showing lines y1 = 3*x+4 and y2 = -2*x+13 intersecting at (2, 9). X - Independent Variable (horizontal), Y - Dependent Variable (vertical).

Solve the four problems below using MS Excel and the graphical technique. Include a hand solution as well (if you can).

Problem 1: $x - y = 10$ $2x + y = 15$

Problem 2: $3x - 3 - y = 0$ $y = 2x^3 - 4$

Problem 3 $2x - 3y = 1$ $\sin(4x) + y = 8$

Problem 4 (10 Points): You presently have $420 and make $8.50/hour while you friend Billy Bob presently has $735 and makes $7.20/hour. Assuming neither of you spend any money, how many hours will you have to work until you both have the same amount of money?

Define your variables:
- let x be the number of hours you work
- let y be the amount of money you make
- follow graphing steps!
- identify the answer.