

EXAMPLE

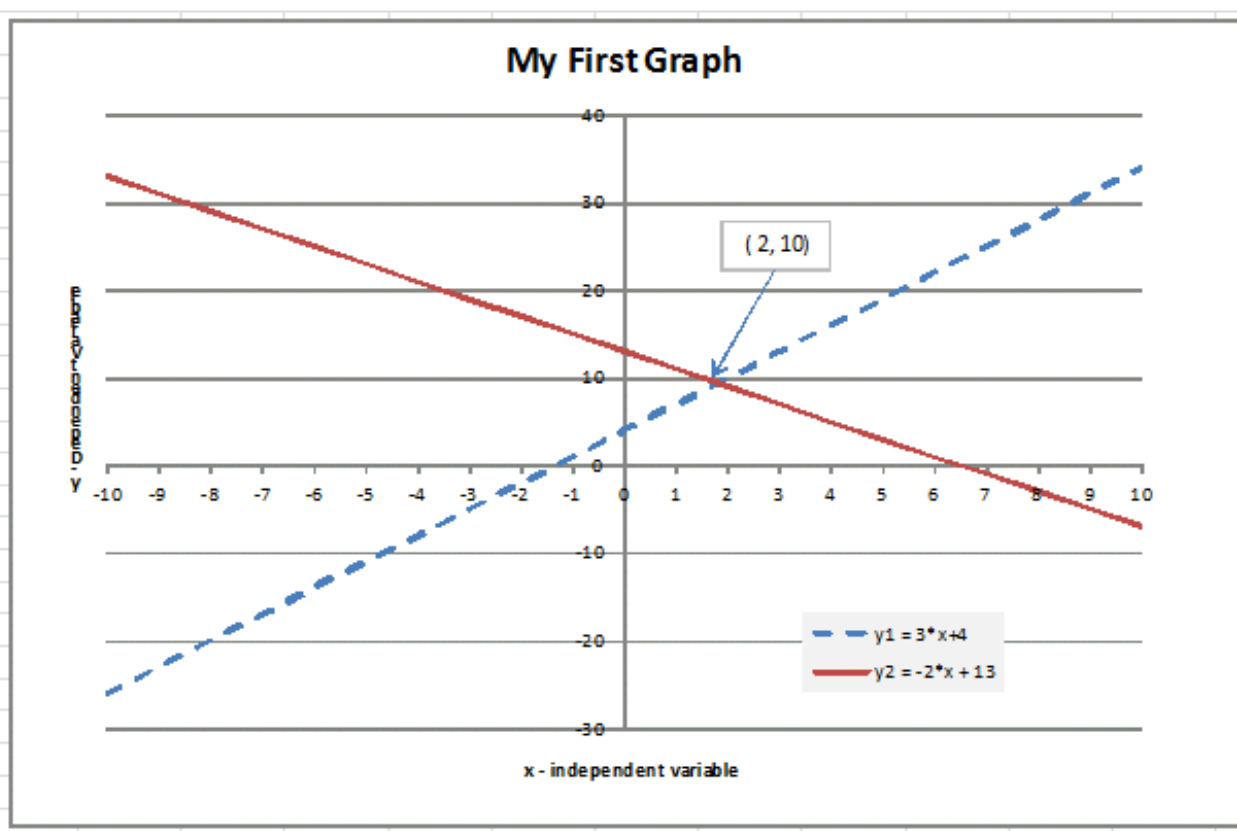
Solve the system of equations using the graphical method by using MS Excel.

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

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	$y_1 = 3 \cdot x + 4$	$y_2 = -2 \cdot x + 13$
-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



Solve the four problems below using MS Excel and the graphical technique. Include a hand solution as well.

Problem 1: $x - y = 20$ $2x + y = 15$

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

Problem 3 $2x - 3y = 0$ $\sin(4x) + y = 8$

Problem 4 (10 Points): You presently have \$300 and make \$8.50/hour while you friend Billy Bob presently has \$735 and makes \$7.00/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.

Send the Excel file to mheinen_1@msn.com as an e-mail attachment no later than midnight January 30, 2017.

Name the Excel file as follows: LastName-Comp_Lab-1.xlsx (Excel will automatically add the ".xlsx" suffix)