CSE 331/EEE 332 Work Sheet 1

Problem A

Write a program to perform multiplication and division of two numbers and put the results in memory.

Problem B

Write a program which will work for the following equation and store the output in memory.

$$x = (x-1)^2 + (y-1)^2$$

Problem C

The Fibonacci sequence of numbers is generated by always adding the previous two numbers of the sequence. The first two numbers of the sequence is initialized to 1. So the next number of the sequence will be 1+1=2 and so on.

Example: 1, 1, 2, 3, 5, 8, 13…..
(First two numbers are 1, 1. The next number is generated by adding the previous two numbers)

Write a program, in assembly language, that will generate the first 50 Fibonacci Numbers. Assume that the first two numbers are included. Use loop and procedure.

Problem D

A class teacher has the marks for **20 students**. He wants to create a distribution curve based on the frequency of the marks obtained by the students. **The exam was out of 10.**

Write a program that will count the frequency of the marks attained by the students.

Example:
Marks:

7	6	5	4	7	6	6	8	3	10

Frequencies:

0	1	2	3	4	5	6	7	8	9	10
0	0	0	1	1	1	3	2	1	0	1

Instructions:

Create an array of size 20. Load the arrays with marks of your choice. Try to add some repetitions so that it simulates a real exam scenario.
Create a second array. This array will contain the frequency of the marks. **You may use the indices of the array to represent the mark.** Study the example.

You do not have to print anything, demonstrate the output using the AUX options of EMU8086.