Lab Assignement N°5

I. Write a Script (M-file)

1) where you create a vector with random data and find the average and the standard deviation

2) that calculates f(N) as follows: (N integer) $\begin{cases} \sum_{i=N}^{-1} i & si\ N < 0 \\ 0 & si\ N = 0 \\ \sum_{i=1}^{N} i + N^2 & si\ N > 0 \end{cases}$

3) that reads a vector and subdivides it into two vectors: the first containing positive or null values, the second containing negative values.

4) that reads a vector and checks if it is sorted in ascending order.

5) that reads a matrix and calculates for each row, the number of elements that do not appear on the next row (the result in the form of a table)

6) that create a matrix for values of the function $f(x,y)=x^2 \sin y$, defined for $x \in [0\ 10]$ and $y \in [0\ 20]$,

II. Make the necessary transformations to write functions from these scripts