Student Name and Surname:

Problem 1 (0.5 points)

Exercise 1 (0.25 points):

Define a function that creates a vector, called A; for example, A = (2,4,5,7). The result of the function is a vector that returns the number in each position, plus the number of the previous position; for example, Res = (2,6,9,12)

Exercise 2 (0.25 points):

Define a function to create a vector, called A; for example, A = (2,4,5,7). The function should ask the user for a number that has to be between the minimum and the maximum number of the vector; in the example, this would be 2 to 7. The function should also check if the number entered by keyboard exists in the vector. If the vector contains the number, the function should delete it. If the number is not in the vector, the function should to display the message "this number does not exist" on screen.

Problem 2 (0.5 points)

Create a function called "SumMatrix". The function should: sum by rows, display the sum on screen and insert the result into a vector called "Sum-Rows"; sum by columns, the sum on screen and insert the result into a vector named "Sum-Columns".

a) Perform the exercise with while or for (0.25 points)
b) Perform the exercise with repeat (0.25 points)

Example:

$$A=\begin{pmatrix}1 & 2 & 1\\ 2 & 4 & 3\\ 3 & 1 & 2\end{pmatrix}$$

Sum-Rows = (3,9,6); Sum-Columns = (6,7,6)

Problem 3 (0.5 points)

Perform a function that creates a matrix with data between 1 and 10, for example, the matrix A. Without using the functions min () and max (), the function must display the smallest and the greatest number of the matrix on screen.

$$A=\begin{pmatrix}1 & 2 & 1\\ 2 & 5 & 9\\ 3 & 1 & 4\end{pmatrix}$$

The smallest number: 1
The greatest number: 9