

Problem 1: (25 Marks)

You have been given an array of positive numbers which contains only **one negative number and size of the array**. Write a function which takes two more arguments, and treats each value at an array index as a pointer (**this is not a pointer in literal sense**). Your job is to tell me that if we follow the indices of the array in the order starting from the minimum of two arguments, will you ever be able to reach the second one? Following are some examples:

{0,1,2,3,4,2}, (4, 5) if you start treating array values as indices and start following starting from 4, you will never reach the 5th index, however, if you follow {1,2,10,-1}, (0, 3) indices in this one you reach the last one in two steps.

Problem 2: (25 Marks)

You have been given an array of integers and its size. Write a function which reverse the order of elements present at odd indices of the array.

Problem 3: (50 Marks)

Write a class which represents a matrix. It should have the following methods:

- 1- A constructor which takes a pointer to a 2D array and two arguments n and m indicating the number of rows and columns in the array and initializes the matrix equal to that.
- 2- A method named get which takes two indices i and j as arguments and returns element at ith row and jth column.
- 3- A method which takes another matrix as arguments and returns a new matrix after multiplying them.
- 4- A method which takes the adjoint of the matrix itself.
- 5- A destructor which clears the memory at the time of object destruction.