1.Given two arrays a[] and b[] of size n and m respectively. The task is to find the number of elements in the union between these two arrays.

Union of the two arrays can be defined as the set containing distinct elements from both the arrays. If there are repetitions, then only one occurrence of element should be printed in the union.

Note : Elements are not necessarily distinct.

Example 1:

Input:
5 3
1 2 3 4 5
1 2 3
Output:
5
Explanation:
1, 2, 3, 4 and 5 are the
elements which comes in the union set
of both arrays. So the count is 5.

Example 2:

Input:
6 2
85 25 1 32 54 6
85 2
Output:
7
Explanation:
85, 25, 1, 32, 54, 6, and
2 are the elements which comes in the
union set of both arrays. So the count is 7.

2.Given an array a[] of size N which contains elements from 0 to N-1, you need to find all the elements occurring more than once in the given array. Return the answer in ascending order.

Note: The extra space is only for the array to be returned.
Try and perform all operations within the provided array.

Example 1:

Input:
N = 4
a[] = {0,3,1,2}
Output: -1
Explanation: N=4 and all elements from 0
to (N-1 = 3) are present in the given
array. Therefore output is -1.

Example 2:

Input:
N = 5
a[] = {2,3,1,2,3}
Output: 2 3
Explanation: 2 and 3 occur more than once
in the given array.

3.Given an array of size N containing only 0s, 1s, and 2s; sort the array in ascending order.

Example 1:

Input:
N = 5
arr[]= {0 2 1 2 0}
Output:
0 0 1 2 2
Explanation:
0s 1s and 2s are segregated
into ascending order.

Example 2:

Input:
N = 3
arr[] = {0 1 0}
Output:
0 0 1
Explanation:
0s 1s and 2s are segregated
into ascending order.

4.Given an array A of n positive numbers. The task is to find the first Equilibrium Point in an
array.

Equilibrium Point in an array is a position such that the sum of elements before it is equal to the sum of elements after it.

Note: Retun the index of Equilibrium point. (1-based index)

Example 1:

Input:
n = 5
A[] = {1,3,5,2,2}
Output: 3
Explanation:
equilibrium point is at position 3
as elements before it (1+3) =
elements after it (2+2).

Example 2:

Input:
n = 1
A[] = {1}
Output: 1
Explanation:
Since its the only element hence
it's the only equilibrium point.

5.An element is called a peak element if its value is not smaller than the value of its adjacent elements(if they exists).
Given an array arr[] of size N, Return the index of any one of its peak elements.
Note: The generated output will always be 1 if the index that you return is correct. Otherwise output will be 0.

Example 1:

Input:
N = 3
arr[] = {1,2,3}
Possible Answer: 2
Generated Output: 1
Explanation: index 2 is 3.
It is the peak element as it is
greater than its neighbor 2.

If 2 is returned then the generated output will be 1 else 0.

Example 2:

Input:
N = 3
arr[] = {3,4,2}
Possible Answer: 1
Output: 1
Explanation: 4 (at index 1) is the
peak element as it is greater than
it's neighbor elements 3 and 2.
If 1 is returned then the generated output will be 1 else 0.