

Arrays in C++

Assignment Questions



Q1 - Given an integer array(arr) and its size(n), print the count of odd and even integers present in the array.

For ex: `arr[]={1,2,3,4,5}` `n=5`

Output: Odd Numbers = 3

Even Numbers = 2

Explanation: The even numbers present in the array are 2,4 and the odd numbers present in the array are 1,3 and 5.

Q2 - Given an integer array and its size, find the sum of the greatest and the smallest integer present in the array. Here $1 < \text{size} < 101$

For ex: `arr[]={1,2,3,4,5}` `n=5`

Output: 6

Explanation: The smallest number in the array is 1 and the greatest numbers in the array is 5, so the sum will be $1+5=6$

Q3 - Given an integer array and its size, reverse the array and print it . Here $1 < \text{size} < 101$

For ex: `arr[]={1,2,3,4,5}` `n=5`

Output: 5,4,3,2,1

`arr[]={1,1,1,1,1}` `n=5`

Output: 1,1,1,1,1

Q4 - Given two arrays `a[]` and `b[]` of same size. Your task is to find the minimum sum of two elements such that they belong to different arrays and are not at the same index. Here $1 < \text{size} < 101$

For ex: `a[]={5,6,10,4,9}`

`b[]={1,2,3,4,5}`

Output: 5

Explanation: $a[3] + b[0] = 5$ is the lowest possible sum amongst all the possible combinations

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Q5 - Given an array containing `n` distinct integers in the range $[0, n]$ (inclusive of both 0 and `n`) (inclusive of both 0 and `n`). Find and return the only number of the range that is not present in the array. Here $1 < n < 101$.

Ex: `arr=[3,0,1]`

Output: 2

`n=3`, thus the range will be $[0, 3]$

Ex: `arr=[8,6,4,2,3,5,0,1]`

Output: 7

`n=8`, thus the range will be $[0, 8]$

Q6 - Given an integer array containing n elements. Find the element in the array for which all the elements to its left are smaller than it and all the elements to the right of it are larger than it. Here $1 < n < 101$.

Ex: arr=[1,6,5,7,10,8,9]

Output: 7

Explanation: Here all the elements to the left of 7 are smaller than it and all the elements to the right of it are greater than it.

Ex: arr=[5,6,2,8,10,9]

Output: -1

Explanation: Here there is no element in the array which satisfies the given condition.

