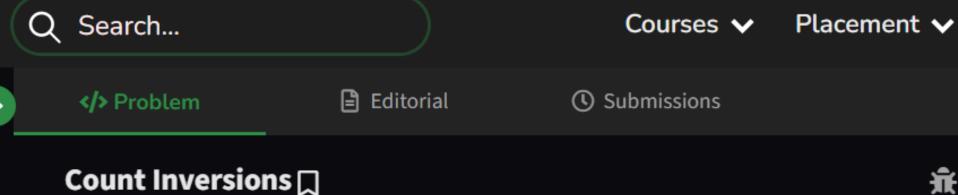


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## Difficulty: Medium Submissions: 707K+ Accuracy: **16.93**% Points: 4

Given an array of integers arr[]. You have to find the Inversion Count of the array.

**Note:** Inversion count is the number of pairs of elements (i, j) such that i < jand arr[i] > arr[j].

## **Examples:**

G

```
Input: arr[] = [2, 4, 1, 3, 5]
Output: 3
Explanation: The sequence 2, 4, 1, 3, 5 has three inversions (2, 1),
(4, 1), (4, 3).
```

```
Input: arr[] = [2, 3, 4, 5, 6]
Output: 0
Explanation: As the sequence is already sorted so there is no
inversion count.
```

```
C++(12)
                    class Solution {
      public:
        int merge (vector <int> &arr , int l, int m , int r)
 4
             int x=m-l+1;
 5
             int y=r-m;
            vector <int> left(x) , right(y);
 8
             for(int i=0;i<x;i++){left[i]=arr[i+1];}</pre>
 9
             for(int j=0;j<y;j++){right[j]=arr[m+1+j];}</pre>
10
11
            int i=0, j=0, k=1, count=0;
12
13
            while(i<x&&j<y)
14
                 if(left[i]<=right[j]){arr[k++]=left[i++];}</pre>
15
16
                 else{
                     arr[k++]=right[j++];
17
18
                     count=count+x-i;
19
20
21
            while(i<x){arr[k++]=left[i++];}</pre>
22
            while(j<y){arr[k++]=right[j++];}</pre>
23
24
            return count;
25
26
        int merge_sort(vector <int> &arr ,int 1 , int r)
27
28
            int count=0;
```



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