**RAJALAKSHMI
ENGINEERING
COLLEGE**

🔔   **SIVARAM G** ⌄   **SG**

Started on	Thursday, 18 September 2025, 8:17 AM
State	Finished
Completed on	Thursday, 18 September 2025, 9:05 AM
Time taken	47 mins 49 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct   Mark 1.00 out of 1.00

Problem Statement

Given an array of 1s and 0s this has all 1s first followed by all 0s. Aim is to find the number of 0s. Write a program using Divide and Conquer to Count the number of zeroes in the given array.

Input Format

  First Line Contains Integer m – Size of array

  Next m lines Contains m numbers – Elements of an array

Output Format

  First Line Contains Integer – Number of zeroes present in the given array.

Answer: (penalty regime: 0 %)

```c
1  #include<stdio.h>
2  int count(int a[],int low, int high, int size)
3  {
4      if(low>high)
5      return 0;
6      int mid=(low+high)/2;
7      if(a[mid]==0 && ((mid==0)||a[mid-1]==1))
8      {
9          return size-mid;
10     }
11     else if(a[mid]==1)
12     {
13         return count(a,mid+1,high,size);
14     }
15     else
16     {
17         return count(a,low,mid-1,size);
18     }
19 }
20 int main()
21 {
22     int n;
23     scanf("%d",&n);
24     int a[n];
25     for(int i=0;i<n;i++)
26     scanf("%d",&a[i]);
27     int s=count(a,0,n-1,n);
28     printf("%d",s);
29     return 0;
30 }
```

	Input	Expected	Got	
✔	5 1 1 1 0 0	2	2	✔

	Input	Expected	Got	
✔	10 1 1 1 1 1 1 1 1 1 1	0	0	✔
✔	8 0 0 0 0 0 0 0 0 0	8	8	✔
✔	17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0	2	2	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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