

CHANDRU G S 2024-CSE ▾**C2****Started on** Wednesday, 17 September 2025, 8:18 AM**State** Finished**Completed on** Wednesday, 17 September 2025, 9:43 AM**Time taken** 1 hour 24 mins**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 %)

```

1 #include<stdio.h>
2 int i,j;
3 int find_in(int arr[],int i,int j,int mid,int n){
4     if(arr[0]==0)
5         return n;
6     if(arr[i]==1 && arr[i+1]==0)
7         return i+1;
8     if(i+1==j)
9         return 0;
10    if(arr[mid]==0)
11        j=mid;
12    else
13        i=mid;
14    return find_in(arr,i,j,(i+j)/2,n);
15 }
16 int main(){
17     int n;
18     scanf("%d",&n);
19     int arr[n];
20     for(int i=0;i<n;i++){
21         scanf("%d",&arr[i]);
22     }
23     i=0,j=n-1;
24     int in=find_in(arr,0,n-1,(i+j)/2,n);
25     if(in==n || in==0)
26         printf("%d",in);
27     else
28         printf("%d",n-in);
29
30
31 }
```

	Input	Expected	Got	
✓	5	2	2	✓
	1			
	1			
	1			
	0			
	0			

	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 0	8	8	✓
✓	17 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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