# CS23331-Design and Analysis of Algorithms-2023 Batch-CSE

## Quiz navigation

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Finish review

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|---|---|
| Started on | Friday, 18 October 2024, 1:42 PM |
| State | Finished |
| Completed on | Friday, 18 October 2024, 1:43 PM |
| Time taken | 1 min 7 secs |
| Marks | 1.00/1.00 |
| Grade | **10.00** out of 10.00 (**100**%) |

**Question 1**

Correct

Mark 1.00 out of 1.00

⚑ Flag question

**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
#include<stdio.h>
int count=0;
void find_major(int *arr, int l ,int h)
{
    if(l==h)
    {
        if (arr[l]==0)
        {
            count++;
        }
        return;
    }

    int m=(l+h)/2;
    find_major(arr,l,m);
    find_major(arr,m+1,h);
}

int main()
{
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++)
        scanf("%d",&arr[i]);
    find_major(arr,0,n-1);
    printf("%d",count);
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 5<br>1<br>1<br>1<br>0<br>0 | 2 | 2 | ✔ |
| ✔ | 10<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | 0 | 0 | ✔ |
| ✔ | 8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 8 | 8 | ✔ |
| ✔ | 17<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>0<br>0 | 2 | 2 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review