Started on	Monday, 7 October 2024, 7:49 PM
State	Finished
Completed on	Monday, 7 October 2024, 7:56 PM
Time taken	6 mins 37 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
#include <stdio.h>
int countZeros(int arr[], int left, int right) {
    if (left > right) {
        return 0;
    }
    if (left == right) {
        return arr[left] == 0 ? 1 : 0;
    }
    int mid = (left + right) / 2;
    int leftZeros = countZeros(arr, left, mid);
    int rightZeros = countZeros(arr, mid + 1, right);
    if (arr[mid] == 1) {
        return rightZeros;
    } else {
        return leftZeros + rightZeros;
    }
}
int findZeroCount(int arr[], int size) {
    return countZeros(arr, 0, size - 1);
}

int main() {
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0; i<n; i++){
        scanf("%d", &arr[i]);
    }
    int zeroCount = findZeroCount(arr, n);
    printf("%d", zeroCount);

    return 0;
}
```

	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	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.

◄ 5-G-Product of Array elements-Minimum

Jump to...

2-Majority Element ►