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Started on	Tuesday, 1 October 2024, 2:38 PM
State	Finished
Completed on	Tuesday, 8 October 2024, 2:18 PM
Time taken	6 days 23 hours
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 a sorted array and a value x, the floor of x is the largest element in array smaller than or equal to x. Write divide and conquer algorithm to find floor of x.

Input Format

First Line Contains Integer n – Size of array

Next n lines Contains n numbers – Elements of an array

Last Line Contains Integer x – Value for x

Output Format

First Line Contains Integer – Floor value for x

Answer: (penalty regime: 0 %)

```

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

```

	Input	Expected	Got	
✓	6 1 2 8 10 12 19 5	2	2	✓
✓	5 10 22 85 108 129 100	85	85	✓

	Input	Expected	Got	
✓	7 3 5 7 9 11 13 15 10	9	9	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ 2-Majority Element

Jump to...



4-Two Elements sum to x ▶