Started on	Thursday, 12 September 2024, 11:08 AM
State	Finished
Completed on	Thursday, 12 September 2024, 11:35 AM
Time taken	26 mins 43 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 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 %)

```c
#include<stdio.h>
int findval(int a[],int x,int l,int r){
    if (l>r)
        return -1;
    int mid=l+(r-l)/2;
    if (a[mid]==x)
        return a[mid];
    if (a[mid]<x){
        int val=findval(a,x,mid+1,r);
        return (val!=-1)?val:a[mid];
    }else{
        return findval(a,x,l,mid-1);
    }
}
int main(){
    int n,x;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++){
        scanf("%d",&a[i]);
    }
    scanf("%d",&x);
    int val=findval(a,x,0,n-1);
    if (val!=-1)
        printf("%d\n",val);
    return 0;
}
```

	Input	Expected	Got	
✔	6 1 2 8 10 12 19 5	2	2	✔

	Input	Expected	Got	
✔	5 10 22 85 108 129 100	85	85	✔
✔	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 ►