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Started on	Tuesday, 8 October 2024, 1:34 PM
State	Finished
Completed on	Tuesday, 8 October 2024, 2:19 PM
Time taken	44 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 %)

```

1  #include<stdio.h>
2  int flor(int arr[], int l, int r, int x){
3  ▼    if(l>r){
4      return -1 ;
5  }
6  int mid = (l+r)/2;
7  int midval = arr[mid];
8  ▼    if(midval==x){
9      return midval;
10 }
11 ▼    if(midval>x){
12     return flor(arr, l, mid-1, x);
13 }
14 int result = flor(arr, mid + 1, r, x);
15 ▼    if(result!=-1){
16     return midval;
17 }
18 ▼    else{
19     return result;
20 }
21 }
22
23 ▼ int main(){
24     int n,x;
25     scanf("%d",&n);
26     int arr[n];
27 ▼    for(int i=0;i<n;i++){
28         scanf("%d",&arr[i]);
29     }
30     scanf("%d",&x);
31     int res = flor(arr, 0, n-1, x);
32     printf("%d",res);
33 }

```

	Input	Expected	Got	
✓	6 1 2 8 10 12 19 5	2	2	✓
✓	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 ▶