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<b>Started on</b>	Friday, 20 September 2024, 1:40 PM
<b>State</b>	Finished
<b>Completed on</b>	Friday, 20 September 2024, 1:51 PM
<b>Time taken</b>	10 mins 36 secs
<b>Marks</b>	1.00/1.00
<b>Grade</b>	<b>10.00</b> out of 10.00 ( <b>100%</b> )

## 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 main(){
4      int n;
5      scanf("%d",&n);
6      int arr[n];
7      for(int i=0;i<n;i++){
8          scanf("%d",&arr[i]);
9      }
10     int x;
11     scanf("%d",&x);
12     int mid;
13     int left= 0,right =n;
14     int value;
15     while(left<=right){
16         mid = (left + right)/2;
17         if(arr[mid]>x && arr[mid-1]<=x){
18             value = arr[mid-1];
19             break;
20         }
21         else if(arr[mid]>x)
22         {
23             right = mid;
24         }
25         else{
26             left = mid;
27         }
28     }
29     printf("%d",value);
30 }
```

	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	9	9	✓
	3			
	5			
	7			
	9			
	11			
	13			
	15			
	10			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ 2-Majority Element

Jump to...

4-Two Elements sum to x ▶