

[Dashboard](#) / [My courses](#) / [CS23331-DAA-2023-CSE](#) / [Divide and Conquer](#) / [3-Finding Floor Value](#)

<b>Started on</b>	Wednesday, 2 October 2024, 7:42 PM
<b>State</b>	Finished
<b>Completed on</b>	Wednesday, 2 October 2024, 7:42 PM
<b>Time taken</b>	24 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  int main(){
3      int n,k;
4      scanf("%d",&n);
5      int arr[n];
6  for(int i=0;i<n;i++){
7      scanf("%d",&arr[i]);
8  }
9      scanf("%d",&k);
10     int left=0,right=n-1;
11 while(left<=right){
12     int mid= (left+right)/2;
13     if(arr[mid]>=k){
14         printf("%d",arr[mid-1]);
15         break;
16     }
17     else if(arr[mid]<=k){
18         printf("%d",arr[mid]);
19         break;
20     }
21 }
22 }
```

	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 ▶