# CS23331-Design and Analysis of Algorithms-2023 Batch-CSE

Dashboard / My courses / CS23331-DAA-2023-CSE / Divide and Conquer / 3-Finding Floor Value

## Quiz navigation

1 ✓

Finish review

| | |
|---|---|
| Started on | Wednesday, 18 September 2024, 9:45 PM |
| State | Finished |
| Completed on | Thursday, 19 September 2024, 6:53 PM |
| Time taken | 21 hours 8 mins |
| Marks | 1.00/1.00 |
| Grade | **10.00** out of 10.00 (**100**%) |

Question **1**

Correct

Mark 1.00 out of 1.00

⚑ Flag question

**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 main(){
    int n,x;
    scanf("%d",&n);
    int arr[n];
    for(int i=0 ;i<n;i++){
        scanf("%d",&arr[i]);
    }
    scanf("%d",&x);
    for(int i=0;i<n;i++){
        if(arr[i]>x){
            break;
        }
        else if(arr[i]<=x && arr[i+1]>x){
            printf("%d",arr[i]);
        }
    }
}
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 6<br>1<br>2<br>8<br>10<br>12<br>19<br>5 | 2 | 2 | ✔ |
| ✔ | 5<br>10<br>22<br>85<br>108<br>129<br>100 | 85 | 85 | ✔ |
| ✔ | 7<br>3<br>5<br>7<br>9<br>11<br>13<br>15<br>10 | 9 | 9 | ✔ |

Passed all tests! ✔

**Correct**

Marks for this submission: 1.00/1.00.

Jump to...