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

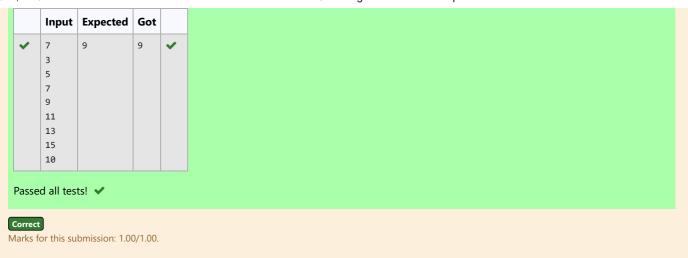Last Line Contains Integer x – Value for x

Output Format

First Line Contains Integer – Floor value for x

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>

int divide(int arr[],int i,int j,int x){
    if(i>j) return -1;

    int mid=(i+j)/2;
    if(x>=arr[mid]&&(mid==j||x<arr[mid+1]))return mid+1;
    else if(x<arr[mid])return divide(arr,i,mid-1,x);
    else return divide(arr,mid+1,j,x);
}

int main(){

    int a;
    scanf("%d",&a);
    int arr[a];
    for(int i=0;i<a;i++) scanf("%d",&arr[i]);
    int c;scanf("%d",&c);
    int d=divide(arr,0,a-1,c);
    printf("%d\n",arr[d-1]);

}
```

	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...   ⇕