Started on	Thursday, 12 September 2024, 10:33 AM
State	Finished
Completed on	Thursday, 12 September 2024, 10:37 AM
Time taken	3 mins 42 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 %)

```c
#include <stdio.h>

int main(){
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0 ; i<n ; i++)
        scanf("%d",&arr[i]);

    int x;
    scanf("%d",&x);

    int left = 0;
    int right = n-1;
    int r=0;

    while(left <= right){
        int mid = (left+right)/2;
        if(arr[mid] == x){
            r = arr[mid];
            break;
        }
        else if(arr[mid] < x){
            r = arr[mid];
            left = mid+1;
        }
        else
            right = mid-1;
    }

    printf("%d",r);
}
```

	Input	Expected	Got	
✔	6 1 2 8 10 12 19 5	2	2	✔

	Input	Expected	Got	
✔	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 ►