Started on	Tuesday, 5 November 2024, 2:19 PM
State	Finished
Completed on	Tuesday, 5 November 2024, 2:27 PM
Time taken	7 mins 52 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:

Find the length of the Longest Non-decreasing Subsequence in a given Sequence.

Eg:

Input:9

Sequence:[-1,3,4,5,2,2,2,2,3]

the subsequence is [-1,2,2,2,2,3]

Output:6

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int max(int n1,int n2){
   if (n1>n2){
       return n1;
   }
   else{
       return n2;
   }
}
int main(){
    int n;
    scanf("%d",&n);
    int arr[n],res[n];
    for(int i=0;i<n;i++){
        scanf("%d",&arr[i]);
    }
    for(int i=0;i<n;i++){
        res[i]=1;
    }
    for(int i=1;i<n;i++){
        for(int j=0;j<i;j++){
            if(arr[j]<=arr[i]){
                res[i]=max(res[j]+1,res[i]);
            }
        }
    }
    //for(int i=1;i<=n;i++){
       // printf("%d ",res[i]);
   // }
    printf("%d",res[n-1]);
    return 0;
}
```

	Input	Expected	Got	
✔	9 -1 3 4 5 2 2 2 2 3	6	6	✔
✔	7 1 2 2 4 5 7 6	6	6	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ 3-DP-Longest Common Subsequence

Jump to...

1-Finding Duplicates-O(n^2) Time Complexity,O(1) Space Complexity ►