

Started on Thursday, 9 October 2025, 8:55 AM

State Finished

Completed on Thursday, 9 October 2025, 9:03 AM

Time taken 8 mins 1 sec

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 %)

```

1 #include<stdio.h>
2 int main(){
3     int n,a[100],dp[100],i,j,max=0;
4     scanf("%d",&n);
5     for(i=0;i<n;i++)
6         scanf("%d",&a[i]);
7     for(i=0;i<n;i++)
8         dp[i]=1;
9     for(i=1;i<n;i++){
10        for(j=0;j<i;j++){
11            if(a[i]>=a[j]&&dp[i]<dp[j]+1)
12                dp[i]=dp[j]+1;
13        }
14    }
15    for(i=0;i<n;i++)
16        if(dp[i]>max)
17            max=dp[i];
18    printf("%d",max);
19 }
```

	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.