

VISAANTH M 2024-IT**V2****Started on** Wednesday, 8 October 2025, 2:06 PM**State** Finished**Completed on** Wednesday, 8 October 2025, 2:19 PM**Time taken** 13 mins 7 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 %)

```

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

	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.

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