

Started on Friday, 10 October 2025, 9:13 PM

State Finished

Completed on Friday, 10 October 2025, 9:21 PM

Time taken 8 mins 9 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 main()
3  {
4      int n,a[100],dp[100],i,j,max=0;
5      scanf("%d",&n);
6      for(i=0;i<n;i++)
7          scanf("%d",&a[i]);
8      for(i=0;i<n;i++)
9          dp[i]=1;
10     for(i=1;i<n;i++)
11     {
12         for(j=0;j<i;j++)
13         {
14             if(a[i]>=a[j]&&dp[i]<dp[j]+1)
15                 dp[i]=dp[j]+1;
16         }
17     }
18     for(i=0;i<n;i++)
19         if(dp[i]>max)
20             max=dp[i];
21     printf("%d",max);
22 }
```

| | 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.