

**Started on** Tuesday, 14 October 2025, 7:18 PM

**State** Finished

**Completed on** Tuesday, 14 October 2025, 7:36 PM

**Time taken** 18 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  {
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.