Started on	Thursday, 23 October 2025, 8:51 AM
State	Finished
Completed on	Thursday, 23 October 2025, 9:07 AM
Time taken	15 mins 20 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
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       }
8       for(i=0;i<n;i++)
9       dp[i]=1;
10      for(i=0;i<n;i++){
11          for(j=0;j<i;j++){
12              if(a[i]>=a[j]&& dp[i]<dp[j]+1){
13                  dp[i]=dp[j]+1;
14              }
15          }
16      }
17      for(i=0;i<n;i++){
18          if (dp[i]>max){
19              max=dp[i];
20          }
21      }
22      printf("%d",max);
23  }
```

	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.