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**Started on** Monday, 6 October 2025, 8:19 PM

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**State** Finished

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**Completed on** Monday, 6 October 2025, 8:23 PM

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**Time taken** 4 mins 40 secs

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**Marks** 1.00/1.00

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**Grade** **10.00** out of 10.00 (**100%**)

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**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.