



RAKSHITA N 2024-IT ▾

R2

Started on	Tuesday, 18 November 2025, 11:09 AM
State	Finished
Completed on	Tuesday, 18 November 2025, 11:10 AM
Time taken	48 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
3  int main() {
4      int n;
5      scanf("%d", &n);
6
7      int seq[n];
8      for (int i = 0; i < n; i++)
9          scanf("%d", &seq[i]);
10
11     int dp[n];
12     for (int i = 0; i < n; i++)
13         dp[i] = 1;
14
15     for (int i = 1; i < n; i++) {
16         for (int j = 0; j < i; j++) {
17             if (seq[i] >= seq[j] && dp[i] < dp[j] + 1) {
18                 dp[i] = dp[j] + 1;
19             }
20         }
21     }
22
23     int max_len = 0;
24     for (int i = 0; i < n; i++) {
25         if (dp[i] > max_len)
26             max_len = dp[i];
27     }
28
29     printf("%d\n", max_len);
30     return 0;
31 }
32

```

	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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