

ASTU-ICPC

Monotonous Monotones

Description

Given a sequence of numbers, a monotonically increasing subsequence is a subsequence in which the numbers are strictly increasing. In this sequence:

Both of these subsequences are monotonically increasing:

1 2 4 7 11 14 and 1 2 3 8 14

The Problem:

Given a sequence, find the length of the longest monotonically increasing subsequence.

The Input:

One line input with the sequence number

The Output:

Print the message: 'n' the longest monotonically increasing subsequence.

Then, print a blank line.

Sample Input (3 different scenarios):

1 2 9 4 7 3 11 8 14 6#

1 2 3 4 5#

5 4 3 2 1#

Sample Output:

6

5

1