**Non-decreasing Numbers**

*A simple way to achieve great things in life is to make small forward progress every day. Non-decreasing progress is one of the principles behind modern AI.*

*Write a program that asks the user to enter a sequence of "non-decreasing" numbers one at a time. Numbers are non-decreasing if each number is greater than or equal to the last.*

*When the user enters a number which is smaller than their previously entered value, the program is over. Tell the user how long their sequence was.*

*Here is an example (values entered by the user are* ***bolded and italicized*** *for clarity, but they don't need to be in your program):*

*Enter a sequence of non-decreasing numbers.*

*Enter num:* ***-1***

*Enter num:* ***0***

*Enter num:* ***1***

*Enter num:* ***3.12***

*Enter num:* ***99***

*Enter num:* ***99***

*Enter num:* ***42***

*Thanks for playing!*

*Sequence length: 6*

***A few notes:***

* *Include the intro message, Enter a sequence of non-decreasing numbers.*
* *Include the exit message, Thanks for playing!.*
* *Include the exit message, Sequence length: followed by the length of the sequence.*
* *The length of the sequence does not include the very last number entered as it is "decreasing"*
* *Your program should accept floating point numbers.*
* *The sequence only ends when one number is strictly less than the last.*
* *You do not have to handle the case where the user enters a value which is not a number (say "abc").*
* *The user can start with any number, positive or negative.*
* *Note that the shortest possible sequence is 1. A sequence with a single number can't be decreasing. A sequence with two numbers can be decreasing.*

***More examples:***

*Enter a sequence of non-decreasing numbers.*

*Enter num:* ***5***

*Enter num:* ***4***

*Thanks for playing!*

*Sequence length: 1*

*Enter a sequence of non-decreasing numbers.*

*Enter num:* ***1***

*Enter num:* ***2.7***

*Enter num:* ***3***

*Enter num:* ***4***

*Enter num:* ***2***

*Thanks for playing!*

*Sequence length: 4*

*Enter a sequence of non-decreasing numbers.*

*Enter num:* ***-5***

*Enter num:* ***-5***

*Enter num:* ***-5***

*Enter num:* ***-6***

*Thanks for playing!*

*Sequence length: 3*