

Problem C

Leader Numbers

Time limit: 1 second
Memory: 1024 megabytes

Problem Description

In a distant kingdom, where numbers are worshipped as heroes, there exists a sequence of N integers that has been passed down through generations. Each number in the sequence possesses its own unique power and is regarded as a warrior in the battle against other numbers. Among them, a number is called a **leader** if it can stand strong against all the subsequent numbers in the sequence. Specifically, an element at position a_i (with $1 \leq i \leq N$) is considered a leader if it is greater than or equal to all elements from a_{i+1} to a_N .

The tale of the leaders is beloved in the kingdom. Each leader not only represents individual strength but also brings pride to the preceding numbers. The legend states that the last element in the sequence is always a leader because there are no numbers following it to compare.

Your task: To help the residents of the kingdom identify the leaders in their cherished sequence, you need to write a program. The program should read a sequence of numbers and determine all the leaders, then print them in the order they appear in the sequence.

Input:

- The first line contains a positive integer N ($1 \leq N \leq 10^6$).
- The next line contains N integers a_1, a_2, \dots, a_N (with $|a_i| \leq 10^9$, for $i = 1, 2, \dots, N$).

Output:

- Print all the leaders in the order they appear in the sequence. The numbers should be printed on the same line, separated by a space.

Example:

INPUT	OUTPUT
7 50 1 40 2 40 4 30	50 40 40 30