Z Test Case Troubles

Time limit: 3s

A lonely jury member in its natural habitat, making test cases in the night time

The typical jury member for the FPC is a hard-working algorithms enthusiast. Approaching the main contest, however, the jury had some trouble finishing all test cases in time. Luckily, you can help them out by making some tricky and clever test cases!

For one problem, test cases have been made. but the jury is afraid that the worst-case is not properly tested and asks you to spice up the current test cases. The test cases consist of a list of integers. Your job is to make sure that the integers are neither in ascending nor in descending[1] order.

Input

- The first line contains an integer n ($0 \leq n \leq 10^5$), the number of integers.
- Then n lines follow, where each line contains one integer k ($0 \leq k \leq 10^9$).

Output

Print the integers, one on each line, from the input in a non-ascending and non-descending order. If no such order exists, print "`impossible`".

Sample Input 1	Sample Output 1
3 1 2 3	2 1 3

Sample Input 2	Sample Output 2
3 37 37 37	impossible

Sample Input 3	Sample Output 3
5 9 8 7 6 5	6 5 7 8 9

[1] A list $x_1, \ldots, x_n$ is *ascending* when $x_i \leq x_{i+1}$ for all $1 \leq i < n$, and *descending* when $x_i \geq x_{i+1}$ for all $1 \leq i < n$.