Problem G

Game of Coin Stacking

Ana and Ernesto are playing an interesting game called "Coin Stacking." The game consists of N stacks of coins, numbered from 1 to N. They start with an array of coin stacks, each with a specific number of coins. Players take turns making moves, starting with Ana.

In each turn, a player chooses a stack and takes a number of coins that is less than or equal to the number of coins in that stack. After each move, the number of coins in the stack is reduced by the amount taken. The players are extremely intelligent and always make the best possible decision in each turn.

The goal of the game is for Ana and Ernesto to try to sort the array of coin stacks at the end of the game in one of the following ways:

1. Ana wins if, at the end of the game, the array of coin stacks is sorted in a non-decreasing order.
2. Ernesto wins if, at the end of the game, the array of coin stacks is sorted in a non-increasing order.
3. If both conditions are met (the array is sorted in a non-decreasing and non-increasing order simultaneously), then both win.

Input

The first line of the input contains an integer N ($1 \leq N \leq 1000000$), the number of coin stacks.

The second line of the input contains N integers separated by spaces, representing the number of coins in each stack. Each integer A_i ($0 \leq A_i \leq 100$) indicates the number of coins in stack i.

Output

Print "Ana" if Ana wins the game.

Print "Ernesto" if Ernesto wins the game.

Print "Both" if both win the game simultaneously.

Input example 1	**Output example 1**
5 1 2 10 4 5	Ana

Input example 2	**Output example 2**
5 5 4 3 2 1	Ernesto

Input example 3	**Output example 3**
5 5 5 5 5 5	Both