Problem C

Check

Time limit: 1s
Memory Limit: 64MB

This problem is even simpler than problem A. Given an array, tell me whether it is non-decreasing.

Note: non-decreasing means for each integer in an array, the integer before it will have value not greater than it.

Input

The first line consists of an integer N $(1 \leq N \leq 100000)$, size of array.

The next line consists N integers, the contents of the array. You can assume the integers in the array do not exceed 100

Output

Output “VALID” if the array is non-decreasing, or “INVALID” if the array is not non-decreasing.

Sample Input 1
5 1 2 3 4 5
Sample Output 1
VALID

Sample Input 2
5 5 4 3 2 1
Sample Output 2
INVALID

Sample Input 3
3 1 2 2
Sample Output 3

```
VALID
```

Note: Always print a newline (\n) at the end of the answer.