F D01 - Array as a Hill

Problem Submissions

Array of integers is a hill, if:

- it is strictly increasing in the beginning;
- after that it is constant;
- after that it is strictly decreasing.
- The first block (increasing) and the last block (decreasing) may be absent. It is allowed that both of this blocks are absent.

For example, the following three arrays are a hill: [5, 7, 11, 11, 2, 1], [4, 4, 2], [7],
but the following three are not unimodal: [5, 5, 6, 6, 1], [1, 2, 1, 2], [4, 5, 5, 6].

Write a program that checks if an array is a hill.

Input Format

The first line contains integer n ($1 \le n \le 100$) — the number of elements in the array.

The second line contains n integers a1, a2, ..., an ($1 \le ai \le 1000$) — the elements of the array.

Output Format

Print "yes" if the given array is a hill. Otherwise, print "no".

Current Buffer (saved locally, editable) Python 3

```
length = int(input())
a = [int(x) for x in input().split()]
# print(a)
i = 0

while i < length - 1:
    if a[i] < a[i + 1]:
        i += 1
    else:
        break
while i < length - 1:
    if a[i] == a[i + 1]:
        i += 1
    else:
        break
while i < length - 1:
    if a[i] > a[i + 1]:
        i += 1
    else:
        break
```

```
if i == length - 1:
    print("yes")
else:
    print("no")

```

Line: 25 Col: 1

Upload Code as File Test against custom input Run Code Submit Code