

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 ($1 \leq n \leq 100$) — the number of elements in the array.

The second line contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 1000$) — the elements of the array.

Output Format

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



Contest ends in 1 day 6 hours 16 minutes 20 seconds

Submissions: 851

Max Score: 50

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Python 3



```
1 length = int(input())
2 a = [int(x) for x in input().split()]
3 # print(a)
4 i = 0
5
6 while i < length - 1:
7     if a[i] < a[i + 1]:
8         i += 1
9     else:
10        break
11 while i < length - 1:
12     if a[i] == a[i + 1]:
13         i += 1
14     else:
15        break
16 while i < length - 1:
17     if a[i] > a[i + 1]:
18         i += 1
19     else:
20        break
```

```
21 if i == length - 1:  
22     print("yes")  
23 else:  
24     print("no")  
25
```

Line: 25 Col: 1

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