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Codeforces Round 1065 (Div. 3)

比赛进行中

02:04:09

Contestant

D. Rae Taylor and Trees (easy version)

time limit per test: 3 seconds
memory limit per test: 256 megabytes

→ 提交?

语言: GNU G++20 13.2 (64 bit, v

选择文件: 选择文件　未选择文件

提交

"To think a commoner would even fathom sitting next to me. Know your place!"

— Claire François

This is the easy version of the problem. The only difference between the easy and hard versions is that the hard version asks you to construct an example of a satisfactory tree.

As an Earth mage, Rae has mastered the spell of growing trees! But Manaria brags that she can grow a more impressive species of trees. Rae remembers that the most rare type of tree can be grown using a formula represented by a certain permutation — please help her construct it!

You are given a permutation* p of length n.

Determine if there exists an undirected tree with n vertices labeled $1, 2, \ldots, n$, satisfying the following condition:

- Let u and v $(1 \leq u < v \leq n)$ be any two vertices connected by an edge. Then u appears before v in p.

*A permutation of length n is an array that contains every integer from 1 to n exactly once, in any order.

Input

The first line contains a single integer t ($1 \leq t \leq 10^4$) — the number of test cases.

The first line of each test case contains a single integer n ($2 \leq n \leq 2 \cdot 10^5$).

The second line of each test case contains n integers, $p_1, p_2, \ldots, p_n$ ($1 \leq p_i \leq n$). It is guaranteed that all p_i are distinct.

It is guaranteed that the sum of n over all test cases does not exceed $2 \cdot 10^5$.

第一行包含单个整数 t （ $1 \le t \le 10^4$ ） —测试用例的数量。

每个测试用例的第一行包含一个整数 n （ $2 \le n \le 2 \cdot 10^5$ ）。

每个测试用例的第二行包含 n 个整数，即 $p_1, p_2, \ldots, p_n$ （ $1 \le p_i \le n$ ）。保证所有 p_i 都是不同的。

保证所有测试用例的 n 之和不超过 $2 \cdot 10^5$ 。

Output

For each test case, output on a single line "Yes" if there exists a tree satisfying the given condition, and "No" otherwise.

You may output the answer in any case (upper or lower). For example, the strings "yEs", "yes", "YES", and "yeS" will be recognized as "Yes".

Example

input

```
9
6
1 3 4 5 2 6
4
3 4 1 2
5
4 3 5 1 2
4
1 2 3 4
7
4 3 5 7 6 2 1
6
2 4 6 1 3 5
3
```

```
2 1 3
4
2 4 1 3
6
4 2 6 5 1 3
```

output

Copy

```
Yes
No
No
Yes
No
Yes
Yes
Yes
Yes
```

Note

In the first example, we can construct the tree with the following edges:

- $\{3, 1\}$,
- $\{4, 1\}$,
- $\{6, 5\}$,
- $\{6, 2\}$,
- $\{6, 1\}$.

Then we have that

- $1 < 3$, and 1 appears before 3 in p,
- $1 < 4$, and 1 appears before 4 in p,
- $5 < 6$, and 5 appears before 6 in p,
- $2 < 6$, and 2 appears before 6 in p,
- $1 < 6$, and 1 appears before 6 in p.

In the second example, it can be shown that there does not exist a tree satisfying the given constraints.

讯飞听见 翻译

注意

在第一个示例中，我们可以构造具有以下边的树：

- $\{3,1\}$,
- $\{4,1\}$,
- $\{6,5\}$,
- $\{6,2\}$,
- $\{6,1\}$.

那我们有那个。

- $1 < 3$ ，并且 1 出现在 p 中的 3 之前，
- $1 < 4$,

并且 1 出现在 p 中的 4 之前，

- $5 < 6$ ，并且 5 出现在 p 中的 6 之前，
- $2 < 6$,并且 2 出现在 p 中的 6 之前，
- $1 < 6$ ，并且 1 出现在 p 中的 6 之前。在第二个例子中，可以证明不存在满足给定约束的树。

GNU G++20 13.2 (64 bit, winlibs)

1

▶ 自定义测试数据(自动保存)