

Problem L. Tree Automorphism

- Time Limit: 2 sec

Problem Statement

There is an undirected tree named T with N vertices numbered 1 to N . The edge between vertices u and v in T is denoted by $\{u, v\}$.

Consider $P = (p_1, p_2, \dots, p_N)$ as a permutation of $(1, 2, \dots, N)$. Among the $N!$ possible permutations, compute the number of P s which satisfy the condition below.

- If T has an edge $\{u, v\}$, then T also has an edge $\{p_u, p_v\}$.

Since the answer may be very large, print the answer modulo 998,244,353.

Input

The input consists of a single test case of the following format.

```
N
u1 v1
u2 v2
⋮
uN-1 vN-1
```

The first line consists of an integer N between 1 and 100,000. This represents the number of vertices in the tree T .

The i -th of the following $N - 1$ lines consists of two integers between 1 and N . This represents that there is an edge $\{u_i, v_i\}$ in the tree T .

It is guaranteed that the given graph is a tree.

Output

Output the answer modulo 998,244,353 in a line.

Sample Input 1	Sample Output 1
4 1 2 1 3 1 4	6
Sample Input 2	Sample Output 2
4 1 2 2 3 3 4	2
Sample Input 3	Sample Output 3
6 1 3 2 3 3 4 4 5 4 6	8