Leaves

Example task

A tree is a connected, undirected and unweighted graph, consisting of n vertices and $n-1$ edges. The characteristic feature of the tree is that it is connected and acyclic. A leaf in a tree is a vertex that has its degree equal to 1 (that is, only one edge is incident to it). If a rooted tree is given, it means that a certain designated vertex is a root. It is assumed that in a rooted tree the root is not called a leaf (even if its degree is equal to 1). You are given a n - vertex rooted tree. The root is the vertex with index 1. Your task is to calculate the number of it's leaves.

Input

In the first line of input one number n ($n \leq 2 \cdot 10^5$) is given, denoting the number of vertices of the tree. The next $n-1$ lines contain information about the edges in the tree. There are two different numbers u_i and v_i ($1 \leq u_i, v_i \leq n$) given on the i-th line, denoting vertices connected by the i-th edge.

Output

Output one number - number of leaves.

Input for test `lea0`:
```
6
1 2
1 3
2 4
3 5
3 6
```

Output for test `lea0`:
```
3
```

Scoring

Subtask	Constraints	Points
1	$n \leq 100$	30
2	There are at least 2 edges incident to the root	20
3	no additional constraints	50