F1. Tree of Life (easy)

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Heidi has finally found the mythical Tree of Life – a legendary combinatorial structure which is said to contain a prophecy crucially needed to defeat the undead armies.

On the surface, the Tree of Life is just a regular undirected tree well-known from computer science. This means that it is a collection of n points (called vertices), some of which are connected using $n - 1$ line segments (edges) so that each pair of vertices is connected by a *path* (a sequence of one or more edges).

To decipher the prophecy, Heidi needs to perform a number of steps. The first is counting the number of *lifelines* in the tree – these are paths of length 2, i.e., consisting of two edges. Help her!

Input

The first line of the input contains a single integer n – the number of vertices in the tree ($1 \leq n \leq 10000$). The vertices are labeled with the numbers from 1 to n. Then $n - 1$ lines follow, each describing one edge using two space-separated numbers a b – the labels of the vertices connected by the edge ($1 \leq a < b \leq n$). It is guaranteed that the input represents a tree.

Output

Print one integer – the number of lifelines in the tree.

Examples

input
4 1 2 1 3 1 4

output
3

input
5 1 2 2 3 3 4 3 5

output
4

Note

In the second sample, there are four lifelines: paths between vertices 1 and 3, 2 and 4, 2 and 5, and 4 and 5.