Q

Related Topics

Depth First Search

Binary Indexed Tree

Submissions: 2070

Difficulty: Advanced

Max Score: 70

More

Similar Pair



 Problem
 Submissions
 Leaderboard
 Discussions
 Editorial https://discussions
 Topics

You are given a tree where each node is labeled from 1 to n. How many similar pairs(S) are there in this tree?

A pair (A,B) is a similar pair if the following are true:

- node A is the ancestor of node B
- $abs(A B) \leq T$

Input format:

The first line of the input contains two integers, n and T. This is followed by n-1 lines, each containing two integers s_i and e_i where node s_i is a parent to node e_i .

Output format:

Output a single integer which denotes the number of similar pairs in the tree.

Constraints:

 $1 \leq n \leq 100000$

 $0 \leq T \leq n$

 $1 \leq s_i$, $e_i \leq n$

Sample Input:

5 2 3 2 3 1 1 4 1 5

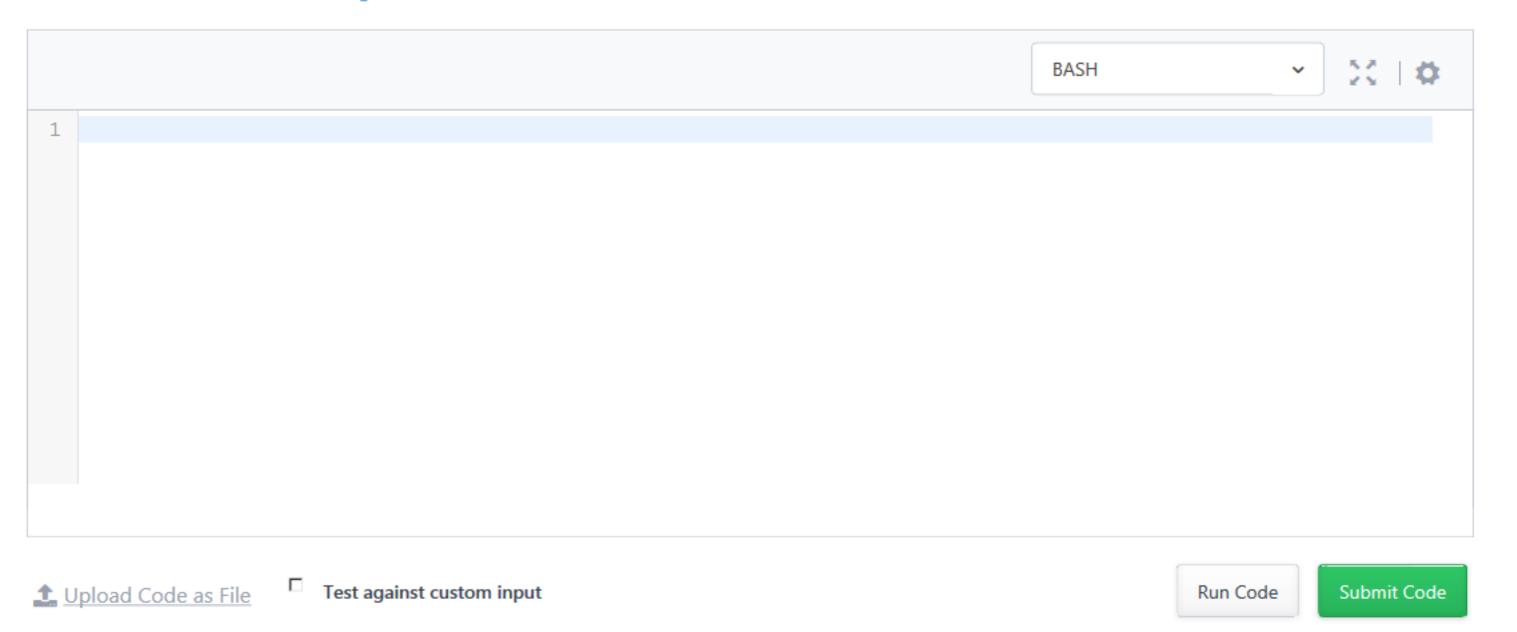
Sample Output:

4

Explanation:

The similar pairs are: (3, 2) (3, 1) (3, 4) (3, 5).

You can have a look at the tree image here



Copyright © 2016 HackerRank. All Rights Reserved