The Unstable Root

SOLVE LATER

Attempted by: **72** / Accuracy: **43%** / Maximum Score: **50** / ⭐⭐⭐⭐⭐ 0 Votes

Tag(s): Centroid Decomposition, Data Structures, Lowest Common Ancestor, Medium-Hard, Trees

PROBLEM   EDITORIAL   MY SUBMISSIONS   ANALYTICS

You are given a tree comprising n nodes numbered from 1 to n. You have to answer q queries each consisting of three numbers – r, d_1 and d_2.

For each query, print the number of nodes whose depth is between d_1 and d_2 (inclusive) if the tree is rooted at node r. The depth of root node itself is 0, the depth of all its children is 1 and so on.

Input format

First line: n (the number of nodes) and q (the number of queries)

Next $n - 1$ lines: u_i and v_i denoting an edge between the nodes u_i and v_i. The next q lines consist of three integers r, d_1 and d_2 .

Output format

For each query, print the answer in a new line.

input Constraints

$1 \le n \le 100000$
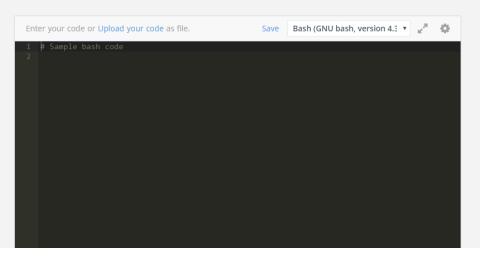$1 \le q \le 150000$
$0 \le d_1 \le d_2 \le n$
$1 \le r \le n$

SAMPLE INPUT	SAMPLE OUTPUT
5 2	4
1 2	3
1 3	
2 4	
4 5	
1 0 2	
2 0 1	

Explanation

For node 1, there are 4 nodes whose depth is between 0 and 2 (1,2,3 and 4). For node 2 there are 3 nodes whose depth is between 0 and 1 (1,2 and 4).

Time Limit:	3.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded when all the testcases pass.
Allowed Languages:	Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Swift-4.1, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file.   Save   Bash (GNU bash, version 4.3 ▼)

```
1  # Sample bash code
2
```

1:1

💡 Press Ctrl/Command+Spacebar for autocomplete suggestions (accuracy dependent on connection stability).

⊡ Provide custom input

COMPILE & TEST   SUBMIT

Your Rating:

• • •

💡 Press Ctrl/Command+Spacebar for autocomplete suggestions (accuracy dependent on connection stability).

⊡ Provide custom input