



Lazy White Falcon

by [ikbalkazar](#)

Problem

Submissions

Leaderboard

Discussions

White Falcon just solved the data structure problem below using heavy-light decomposition. Can you help her find a new solution that doesn't require implementing any fancy techniques?

There are **2** types of query operations that can be performed on a tree:

1. $1 \ u \ x$: Assign x as the value of node u .
2. $2 \ u \ v$: Print the sum of the node values in the unique path from node u to node v .

Given a tree with N nodes where each node's value is initially **0**, execute Q queries.

Input Format

The first line contains **2** space-separated integers, N and Q , respectively.

The $N - 1$ subsequent lines each contain **2** space-separated integers describing an undirected edge in the tree.

Each of the Q subsequent lines contains a query you must execute.

Constraints

- $1 \leq N, Q \leq 10^5$
- $1 \leq x \leq 1000$
- It is guaranteed that the input describes a connected tree with N nodes.
- Nodes are enumerated with **0**-based indexing.

Output Format

For each type-**2** query, print its integer result on a new line.

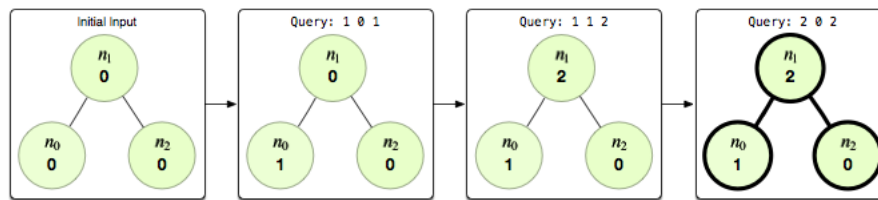
Sample Input

```
3 3
0 1
1 2
1 0 1
1 1 2
2 0 2
```

Sample Output

```
3
```

Explanation



After the first **2** queries, the value of node $n_0 = 1$ and the value of node $n_1 = 2$. The third query requires us to print the sum of the node values in the path from nodes **0** to **2**, which is $1 + 2 + 0 = 3$. Thus, we print **3** on a new line.

f t in

Submissions: 217

Max Score: 100

Difficulty: Hard

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Java 7



```

1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11     }
12 }

```

Line: 1 Col: 1

📁 Upload Code as File

☐ Test against custom input

Run Code

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