

# Neighbourhood

Input file:            **standard input**  
Output file:          **standard output**  
Time limit:          10 seconds  
Memory limit:        1024 megabytes

You are given a tree with  $n$  vertices. Each edge has a weight  $w_i$ .

There are  $q$  operations of the following two types:

- 1  $i$   $c$ : Change  $w_i$  to  $c$ .
- 2  $x$   $d$ : Count number of  $y$  ( $1 \leq y \leq n$ ) such that the shortest path between  $x$  and  $y$  is not greater than  $d$ .

## Input

The first line of the input contains two integers  $n$  and  $q$  ( $2 \leq n \leq 2 \times 10^5, 1 \leq q \leq 2 \times 10^5$ ).

The next  $n - 1$  lines, each line contains three integers  $x_i, y_i, w_i$  ( $1 \leq x_i, y_i \leq n, 1 \leq w_i \leq 10^9$ ), representing an edge connecting  $x_i$  and  $y_i$  with weight  $w_i$ .

The next  $q$  lines, each line contains three integers 1  $i$   $c$  ( $1 \leq i \leq n - 1, 1 \leq c \leq 10^9$ ) or 2  $x$   $d$  ( $1 \leq x \leq n, 0 \leq d \leq 2 \times 10^{14}$ ), indicating an operation.

## Output

For each operation of type 2, print one line with a single integer, indicating the answer.

## Example

standard input	standard output
3 7	2
1 2 3	2
2 3 1	3
2 2 1	3
2 1 3	1
2 3 4	2
1 1 1	
2 2 1	
2 1 0	
2 3 1	