Cube Stacking - POJ 1988

https://vjudge.net/problem/poj-1988

Farmer John and Betsy are playing a game with N (1 <= N <= 30,000)identical cubes labeled 1 through N. They start with N stacks, each containing a single cube. Farmer John asks Betsy to perform P (1<= P <= 100,000) operation. There are two types of operations: moves and counts.

* In a move operation, Farmer John asks Bessie to move the stack containing cube X on top of the stack containing cube Y.
* In a count operation, Farmer John asks Bessie to count the number of cubes on the stack with cube X that are under the cube X and report that value.

Write a program that can verify the results of the game.

Input

* Line 1: A single integer, P

* Lines 2..P+1: Each of these lines describes a legal operation. Line 2 describes the first operation, etc. Each line begins with a 'M' for a move operation or a 'C' for a count operation. For move operations, the line also contains two integers: X and Y.For count operations, the line also contains a single integer: X.

Note that the value for N does not appear in the input file. No move operation will request a move a stack onto itself.

Output

Print the output from each of the count operations in the same order as the input file.

Sample Input

```
6
M 1 6
C 1
M 2 4
M 2 6
C 3
C 4
```

Sample Output

```
1
0
2
```