**Cube Stacking**

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| **Time Limit:** 2000MS |  | **Memory Limit:** 30000K |
|  |  |  |
| **Case Time Limit:** 1000MS | | |

**Description**

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

**Source**

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