

Overview:	Implement a union find data structure.
Description:	<p>Initially, you are given a set of n points, labelled from 1 to n. Then, you will be given q queries. The queries will be of the following form.</p> <p>I a b: Connect a and b with an edge. Q a b: A query that asks “are a and b in the same connected component?”</p> <p>For each query of type Q, determine if the answer is yes or no.</p>
Filename:	bug8.{java, cpp, py}
Input:	The first line contains 2 integers, n and q , denoting the number of points and the number of queries. q lines follow, and each line consist of a character c followed by two integers a and b . If c is the character I, then this is a type I query. If c is the character Q, then this is a type Q query.
Output:	Answer each Q queries in a different line in the given order. For each Q query, output 1 if the answer is yes, and 0 if the answer is no.
Assumptions:	$2 \leq n \leq 100,000$ $2 \leq q \leq 200,000$ $1 \leq a, b \leq n$
Sample Input 1:	<pre>5 5 I 1 2 Q 1 2 I 2 4 Q 1 4 Q 1 5</pre>
Sample Output 1:	<pre>1 1 0</pre>
Sample Input 2:	<pre>3 8 I 1 1 I 2 2 I 1 3 I 1 3 I 3 1 Q 1 3 Q 1 1 Q 1 3</pre>
Sample Output 2:	<pre>1 1 1</pre>

