**The kth great number**

**Time Limit: 2000/1000 MS (Java/Others)    Memory Limit: 65768/65768 K (Java/Others)**

**Problem Description**

Xiao Ming and Xiao Bao are playing a simple Numbers game. In a round Xiao Ming can choose to write down a number, or ask Xiao Bao what the kth great number is. Because the number written by Xiao Ming is too much, Xiao Bao is feeling giddy. Now, try to help Xiao Bao.

**Input**

There are several test cases. For each test case, the first line of input contains two positive integer n, k. Then n lines follow. If Xiao Ming choose to write down a number, there will be an " I" followed by a number that Xiao Ming will write down. If Xiao Ming choose to ask Xiao Bao, there will be a "Q", then you need to output the kth great number.

**Output**

The output consists of one integer representing the largest number of islands that all lie on one line.

**Sample Input**

8 3

I 1

I 2

I 3

Q

I 5

Q

I 4

Q

**Sample Output**

1

2

3

***Hint***

Xiao Ming won't ask Xiao Bao the kth great number when the number of the written number is smaller than k. (1=<k<=n<=1000000).

**Source**

[The 36th ACM/ICPC Asia Regional Dalian Site —— Online Contest](http://acm.hdu.edu.cn/search.php?field=problem&key=The+36th+ACM%2FICPC+Asia+Regional+Dalian+Site+%A1%AA%A1%AA+Online+Contest&source=1&searchmode=source)