

## Segment Union

Input file:            standard input  
Output file:           standard output  
Time limit:            1 second  
Memory limit:         256 megabytes

Assume this is an infinity number line. You will color some segments of it from time to time. And also keep track of the total length that has been colored so far. Since it is a troublesome work, can you write a code to do this for you?

### Input

Input starts with an integer  $Q$  ( $1 \leq Q \leq 10^5$ ), the total number of operations. Next  $Q$  lines will have one of the following form -

- $+ \ l \ r$ : It means you are coloring the segment from  $l$  to  $r$ .
- $?$ : It means you need to find out the total length of the infinity line that you've colored so far.

### Output

For each of the  $?$  queries, print the total length of the infinity line that is colored so far.

### Scoring

#### Subtask 1 (points: 10)

$1 \leq l \leq r \leq 100$

#### Subtask 2 (points: 20)

$1 \leq l \leq r \leq 10000$ , and there is only one  $?$  operation.

#### Subtask 3 (points: 50)

$1 \leq l \leq r \leq 10^5$

#### Subtask 4 (points: 20)

$1 \leq l \leq r \leq 10^9$

### Example

Sample Input 1	Sample Output 1
4	4
+ 1 4	10
?	
+ 3 10	
?	

### Explanation

After first  $+$  operation, the segment from 1 to 4 is colored, so the answer to the first  $?$  query is 4. After second  $+$  operation the segment from 1 to 10 is colored in total. So the answer to the last query is 10.