- I i : Insert. Insert one integer i to the integer set.
- R i : Remove. Remove one integer i from the integer set. (If the integer set don't have any integer i, don't do anything.)
- C i : Count. Count the occurrence of integer i in the integer set, **output** the number. (If the integer set doesn't have any integer i, output "0".)

Input

The first line is an integer n, being the number of operations. Following n lines, each line contains one operation described above.

Restrictions

- $1 \leq n \leq 5000$
- $1 \leq i \leq 10^{18}$ for every i in all operations

Note that:

- In single testcase, the integers i of "Insert" operations may duplicate.

Output

For each "Count" operation, output one line.

Sample Input 1

```
11
I 7
I 5
I 4
C 5
R 5
R 5
C 5
I 5
I 5
I 5
C 5
```

Sample Output 1

```
1
0
3
```

Submissions

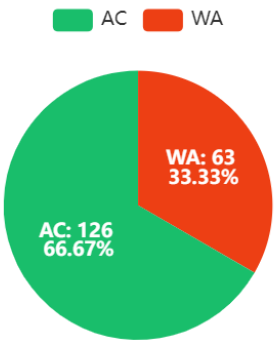
Rankings

View Contest

Information

ID	2
Time Limit	1000MS
Memory Limit	256MB
IO Mode	Standard IO
Created By	ta_david
Level	Low
Score	100
Tags	Show

Statistic Details



Language: C Theme: Solarized Light

```
1
```

You have solved the problem

Submit for Sample Test

Submit

Contest has ended

Sample Test Input

```
11
I 7
I 5
I 4
C 5
R 5
R 5
C 5
I 5
I 5
I 5
C 5
```

Sample Test Output