Description | My Submissions | Hints/Editorial | AC Submissions | My Notes (0)

Support Queries I

? Ask Doubt

Time-Limit: 1 sec Score: 1.00/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100 Relevant For: AZ-201

Description

Design a Data Structure which can support the following queries:

1 *x*: Add *x* in structure
2 x: Remove *x* from the structure if present in the structure. If *x* doesn't present in the structure, do nothing. If there are multiple occurrences of *x*, delete only one occurrence of *x*.
3 ?: Print the minimum number present in the structure. If the structure is empty, print -1.
4 ?: Print the maximum number present in the structure. If the structure is empty, print -1.
5 ?: Print the sum of all numbers present in the structure. If the structure is empty, print 0.

Initially, the structure is empty.

Input Format

The first line of input contains *Q* - the number of queries.
Next, *Q* lines contain queries of the format specified in the statement.

Output Format

For queries of type 3, 4 and 5, print the answer in a new line.

Constraints

$1 \le Q \le 10^5$
$0 \le x \le 10^9$

Sample Input 1

Copy

```
18
1 5
1 4
1 4
3 ?
4 ?
5 ?
2 4
3 ?
4 ?
5 ?
2 4
3 ?
```

C++14[GCC]

Submit

```
1
```

Typesetting math: 100%