

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP RAYAN 🛣

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

# A. SuperMemo

time limit per test: 1 second memory limit per test: 256 megabytes

Your friend, Jackson is invited to a TV show called SuperMemo in which the participant is told to play a memorizing game. At first, the host tells the participant a sequence of numbers,  $\{A_1,A_2,\ldots A_n\}$ . Then the host performs a series of operations and queries on the sequence which consists:

- ADD~x~y~D: Add D to each number in sub-sequence  $\{A_x \dots A_y\}$ . For example, performing "ADD~2~4~1" on  $\{1,2,3,4,5\}$  results in  $\{1,3,4,5,5\}$
- REVERSE~x~y: reverse the sub-sequence  $A_x \ldots A_y$ . For example, performing "REVERSE~2~4" on  $\{1,2,3,4,5\}$  results in  $\{1,4,3,2,5\}$
- REVOLVE~x~y~T: rotate sub-sequence  $A_x\ldots A_y~T$  times. For example, performing "REVOLVE~2~4~2" on  $\{1,2,3,4,5\}$  results in  $\{1,3,4,2,5\}$
- INSERT~x~P: insert P after  $A_x$ . For example, performing "INSERT~2~4" on  $\{1,2,3,4,5\}$  results in  $\{1,2,4,3,4,5\}$
- DELETE~x: delete  $A_x$ . For example, performing "DELETE~2" on  $\{1,2,3,4,5\}$  results in  $\{1,3,4,5\}$
- MIN~x~y: query the participant what is the minimum number in sub-sequence  $\{A_x\dots A_y\}$ . For example, the correct answer to "MIN~2~4" on  $\{1,2,3,4,5\}$  is 2

To make the show more interesting, the participant is granted a chance to turn to someone else that means when Jackson feels difficult in answering a query he may call you for help. You task is to watch the TV show and write a program giving the correct answer to each query in order to assist Jackson whenever he calls.

### Input

The first line contains n ( $n \leq 100000$ ).

The following n lines describe the sequence.

Then follows M ( $M \leq 100000$ ), the numbers of operations and queries.

The following M lines describe the operations and queries.

### Output

For each "MIN" query, output the correct answer.

# **Examples**

```
input

5
1
2
3
4
5
2
ADD 2 4 1
MIN 4 5

output

Copy
```

input	Сору
10	
1 2 3 4 5 6 7 8 9 10	
15	
ADD 4 8 3	
MIN 5 7	
MIN 7 10	
REVERSE 2 5	
MIN 2 6	
MIN 2 3	
INSERT 3 4	
MIN 3 4	
MIN 5 10	
DELETE 6	
MIN 3 5	
MIN 4 4	
REVOLVE 3 6 7	
MIN 5 8	
MIN 7 10	
output	Сору

# output 8 9 2 7 4 2 3 4 7 9

# Note

All input fits in 32-bit integers. Every number in the sequence after every operation fits in a 32-bit integer.

# **Splay Training**

# **Finished**

### **Practice**



### → About Contest

A test problem for Splay.

# → Virtual participation

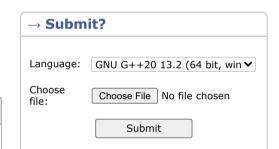
Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

# → Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest



→ Last submissions		
Submission	Time	Verdict
304289452	Feb/03/2025 19:49	Accepted
304238183	Feb/03/2025 14:17	Accepted
303574182	Jan/29/2025 23:10	Accepted
303573568	Jan/29/2025 23:03	Wrong answer on test 2
303414726	Jan/28/2025 20:49	Accepted
303414495	Jan/28/2025 20:47	Wrong answer on test 2
303414156	Jan/28/2025 20:46	Wrong answer on test 2
303413914	Jan/28/2025 20:44	Wrong answer on test 2
303372732	Jan/28/2025 16:47	Accepted
303221133	Jan/27/2025 15:08	Accepted