

E. Queue

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

You have an empty queue of integers, and q queries in the following format:

- $push\ x$: where $(1 \leq x \leq 10^9)$ add x in the end of the queue.
- pop : remove the first element in the queue.
- $front$: print the first element in the queue.
- $back$: print the last element in the queue.

It's guaranteed that in the last 3 types of the query, the queue is not empty

Input

The first line of input contains an integer q $(1 \leq q \leq 10^5)$.

The next q lines contain the queries.

Output

Print the answer to the queries in separate lines

Example

input

Copy

15
push 5
front
back
push 6
front
back
push 3
front
back
pop
front
back
pop
front
back

output

Copy

5
5
5
6
5
3
6
3
3
3
3

ICPC Assiut University Training - Standard - Juniors Phase 1

Public

Participant




→ Group Contests

- Standard #5 (Bits , bit-masking)
- Standard #4 (Binary search , two pointers)
- Standard #3 (set , sorting, compare function , map)
- Standard #2 (binary search , stack , queue, deque , priority queue)
- Standard #1 (Frequency , prefix sum , vector , pair ,struct)

Standard #2 (binary search , stack , queue, deque , priority queue).

Finished

Practice



→ Virtual participation

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Start virtual contest

→ Submit?

Language: GNU G++20 11.2.0 (64 bit, w

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
226498583	Oct/03/2023 23:42	Accepted