

Problem C. Easy Queue

Time limit	500 ms
Mem limit	1572864 kB
Code length Limit	50000 B
OS	Linux

You have an empty queue and your boss has some queries. These queries are queue's basic operations such as Enqueue, Dequeue, and printing some values. Now, your boss asks you to process his queries.

Input

First line contains an integer T ($0 \leq T \leq 10^6$).

Each of the T next lines contains a query based on these formats.

1 n : Enqueue n ($-10^9 \leq n \leq 10^9$) to the queue.

2 : Dequeue an element from the queue. If the queue is empty, do nothing.

3 : Print the queue's first element's value (see Output).

Output

For each query 3, print the queue's first element's value. If the queue is empty, print 'Empty!' without quotes.

Example

Input:

```
6
1 5
1 6
2
3
2
3
```

Output:

```
6
Empty!
```

Warning!

Enormous input data!