

Easy Queue

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 first queue's element's value (see Output).

Output

For each query 3, print the first queue's 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!