Problem Statement

You have an empty sequence, and you will be given \$N\$ queries. Each query is one of these three types:

- 1 x -Push the element x into the stack.
- 2 -Delete the element present at the top of the stack.
- 3 -Print the maximum element in the stack.

Input Format

The first line of input contains an integer, \$N\$. The next \$N\$ lines each contain an above mentioned query. (It is guaranteed that each query is valid.)

Constraints

\$1 \le N \le 10^5\$

\$1 \le x \le 10^9\$

\$1 \le type \le 3\$

Output Format

For each type \$3\$ guery, print the maximum element in the stack on a new line.

Sample Input

10
1 97
2
1 20
2
1 26
1 20
2
3
1 91
3

Sample Output

26 91