Maximum Element



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

 $1 \le N \le 10^5$

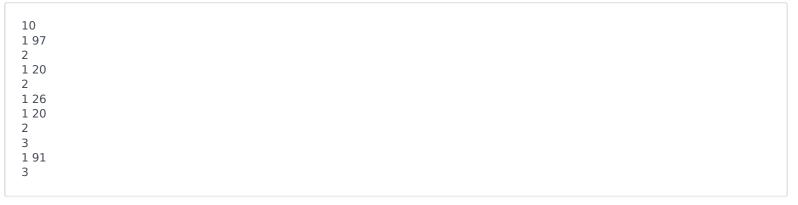
 $1 \le x \le 10^9$

 $1 \le type \le 3$

Output Format

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

Sample Input



Sample Output

