




# QHEAP1

 by dcod5

Problem

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This question is designed to help you get a better understanding of *basic heap* operations. You will be given queries of **3** types:

- "**1** *v*" - Add an element *v* to the heap.
- "**2** *v*" - Delete the element *v* from the heap.
- "**3**" - Print the minimum of all the elements in the heap.

**NOTE:** It is guaranteed that the element to be deleted will be there in the heap. Also, at any instant, only distinct elements will be in the heap.

## Input Format

The first line contains the number of queries, *Q*.

Each of the next *Q* lines contains a single query of any one of the **3** above mentioned types.

## Constraints

$$1 \leq Q \leq 10^5$$

$$-10^9 \leq v \leq 10^9$$

## Output Format

For each query of type **3**, print the minimum value on a single line.

## Sample Input

```
5
1 4
1 9
3
2 4
3
```

## Sample Output

```
4
9
```

## Explanation

After the first **2** queries, the heap contains {**4**, **9**}. Printing the minimum gives **4** as the output. Then, the **4<sup>th</sup>** query deletes **4** from the heap, and the **5<sup>th</sup>** query gives **9** as the output.



  Submissions: [10249](#)




Max Score: 25

Difficulty: Easy

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Java 7   

```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11     }
12 }
```

Line: 1 Col: 1

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Run Code

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