

## Problem Statement

You start with an initially empty array. You need to handle  $q$  queries. The queries are of two types:

- 1  $x$  - Add the number  $x$  to the array. All  $x$  provided are distinct.
- 2 - Report the number which has **floor(3k/4)** elements greater than it in the array, where  $k$  is the current number of elements in the array.

## Constraints

- $1 \leq x \leq 10^9$
- $2 \leq q \leq 2 \times 10^5$

## Input Format

- The first line contains an integer  $q$ , the number of queries.
- The next  $q$  lines contain queries in one of the two formats:
  - 1  $x$  (where  $x$  is a distinct integer to be added to the array)
  - 2 (to report the required number)

## Output Format

For each query of type 2, output the required number on a new line.

## Sample Input

```
6
1 5
1 3
1 10
2
1 7
2
```

## Sample Output

3

5

## Explanation

- After processing 1 5 , array = [5]
- After processing 1 3 , array = [3, 5]
- After processing 1 10 , array = [3, 5, 10]
- Query 2 :  $k = 3$ ,  $\text{floor}(9/4) = 2 \rightarrow$  The element with 2 greater elements is 3
- After processing 1 7 , array = [3, 5, 7, 10]
- Query 2 :  $k = 4$ ,  $\text{floor}(12/4) = 3 \rightarrow$  The element with 3 greater elements is 3