

# Statement

You have been given a sequence  $A$  of  $N$  digits. Each digit in this sequence ranges from 1 to  $10^9$ . You need to perform two types of operations on this list.

**Addition**  $Add(x)$ , add an element  $x$  to the end of the list.

**Maximum of list**  $Max(list)$ , find the maximum element of the current sequence.

# Input

The first line consists of a single integer  $N$ , the size of the initial sequence. The next line consists of  $N$  space separated integers representing the elements of the initial sequence.

The next line contains a single integer  $q$ , the number of queries. The next  $q$  lines contain the operation details. The first integer type indicates the type of query. If  $type_i = 1$ , it is followed by another integer  $x$  and the operation to be performed is addition. If  $type_i = 2$ , the other operation is to be performed.

# Output

For each operation of the second type, print a single integer on a new line.

# Constraints

- $1 \leq N \leq 10^5$
- $1 \leq A[i] \leq 10^9$
- $1 \leq q \leq 10^4$

# Sample

Sample Input	Sample Output
5	5
1 2 3 4 5	
4	
1 1	
1 2	
1 3	
2	