**Java List**

<https://www.hackerrank.com/challenges/java-list/problem>

For this problem, we have 2 types of queries you can perform on a [List](https://docs.oracle.com/javase/7/docs/api/java/util/List.html):

1. Insert y at index x:

Insert

x y

1. Delete the element at index x:

Delete

x

Given a list, L, of N integers, perform Q queries on the list. Once all queries are completed, print the modified list as a single line of space-separated integers.

**Input Format**

The first line contains an integer, N (the initial number of elements in L).  
The second line contains N space-separated integers describing L.  
The third line contains an integer, Q (the number of queries).  
The 2Q subsequent lines describe the queries, and each query is described over two lines:

* If the first line of a query contains the String **Insert**, then the second line contains two space separated integers x y, and the value y must be inserted into L at index x.
* If the first line of a query contains the String **Delete**, then the second line contains index x, whose element must be deleted from L.

**Constraints**

* 1 <= N <= 4000
* 1 <= Q <= 4000
* Each element in is a 32-bit integer.

**Output Format**

Print the updated list L as a single line of space-separated integers.

**Sample Input**

5

12 0 1 78 12

2

Insert

5 23

Delete

0

**Sample Output**

0 1 78 12 23

**Explanation**

L = [12,0,1,78,12]

Q0 = **Insert** 23 at index 5.  
L0 = [12,0,1,78,12,23]

Q1 = **Delete** the element at index 0.  
L1 = [0,1,78,12,23]

Having performed all Q queries, we print L1 as a single line of space-separated integers.