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STL map

Implement different operations on maps.

Input:

The first line of input contains an integer ${\bf T}$ denoting the no of test cases . Then T test cases follow. The first line of input contains an integer ${\bf Q}$ denoting the no of queries . Then in the next line are ${\bf Q}$ space separated queries .

A query can be of three types

- 1. a x y (adds a value with key x and value y to the map)
- 2. b x (print value of x is present in the map else print -1.)
- 3. c (prints values x and y separated by space i.e., contents of map)

Output:

The output for each test case will be space separated integers denoting the results of each query .

Constraints:

1<=T<=100 1<=Q<=100

Example:

Input

2 4 4 a 1 2 a 66 3 b 66 c 3 a 1 66 b 5 c

Output

3 1 2 66 3 -1 1 66

Explanation:





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For the first test case

There are four queries. Queries are performed in this order

- 1. a 1 2 --> map has a key 1 with value 2
- 2. a 66 3 --> map has a key 66 with value 3
- 3. b 66 --> prints the value of key 66 if its present in the map ie 3.
- 4. c --> print the contents of map separated by space ie (12663)

For the sec test case

There are three queries. Queries are performed in this order

- 1. a 1 66 --> adds a key 1 with a value of 66 in the map
- 2. b 5 --> since the key 5 is not present in the map hence -1 is printed.
- 3. c --> prints contents of map separated by space ie(1 66)