



STL unordered map

Implement different operations on unordered maps.

Input:

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

A query can be of four types

1. a x y (adds an entry with key x and value y to the unordered map)
2. b x (print value of x if present in the unordered map else print -1.)
3. c (prints the size of the unordered map)
4. d x (removes an entry with key x from the unordered map)

Output:

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

Constraints:

$1 \leq T \leq 100$

$1 \leq Q \leq 100$

Example(To be used only for expected output):

Input

```
2
5
a 1 2 a 66 3 b 66 d 1 c
3
a 1 66 b 5 c
```

Output

```
3 1
-1 1
```

**Explanation :****For the first test case**

There are five 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. d 1 ---> erases an entry from map with key 1
5. c ---> prints the size of the map ie 1

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 the size of the map ie 1