STL unordered set

Implement different operations on an unordered set s .

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 (inserts an element x to the unordered set s)
2. b x (erases an element x from the unordered set s)
3. c x (prints 1 if the element x is present in the set else print -1)
4. d (prints the size of the unordered set s)

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(To be used only for only expected output):

Input
2
5
a 1 a 2 a 3 b 2 d
4
a 1 a 5 d c 2

Output
2
2 -1

Explanation :

For the first test case

There are five queries. Queries are performed in this order

1. a 1 {inserts 1 to set now set has {1} }
2. a 2 {inserts 2 to set now set has {1,2} }
3. a 3 {inserts 3 to set now set has {1,2,3} }
4. b 2 {removes 2 from the set }
5. d {prints the size of the unordered set ie 2}

For the second test case

There are four queries. Queries are performed in this order

1. a 1 {inserts 1 to set now set has {1} }
2. a 5 {inserts 5 to set now set has {1,5} }
3. d {prints the size of the set ie 2}
4. c 2 {since 2 is not present in the set prints -1}