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Sets-STL

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Problem

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Sets are a part of the C++ STL. Sets are containers that store unique elements following a specific order. Here are some of the frequently used member functions of sets:

- Declaration:

```
set<int>s; //Creates a set of integers.
```

- Size:

```
int length=s.size(); //Gives the size of the set.
```

- Insert:

```
s.insert(x); //Inserts an integer x into the set s.
```

- Erasing an element:

```
s.erase(val); //Erases an integer val from the set s.
```

- Finding an element:

```
set<int>::iterator itr=s.find(val); //Gives the iterator to the element val if it is found otherwise returns s.end() .  
Ex: set<int>::iterator itr=s.find(100); //If 100 is not present then it==s.end().
```

To know more about sets [click Here](#). Coming to the problem, you will be given Q queries. Each query is of one of the following three types:

1 x : Add an element x to the set.

2 x : Delete an element x from the set. (If the number x is not present in the set, then do nothing).

3 x : If the number x is present in the set, then print "Yes"(without quotes) else print "No"(without quotes).

Input Format

The first line of the input contains Q where Q is the number of queries. The next Q lines contain **1** query each. Each query consists of two integers y and x where y is the type of the query and x is an integer.

Constraints

 $1 \leq Q \leq 10^5$ $1 \leq y \leq 3$ $1 \leq x \leq 10^9$

Output Format

For queries of type **3** print "Yes"(without quotes) if the number x is present in the set and if the number is not present, then print "No"(without quotes).

Each query of type **3** should be printed in a new line.

Sample Input

```
8
1 9
1 6
1 10
1 4
3 6
3 14
2 6
3 6
```

Sample Output

```
Yes
No
No
```

Easy Submitted 16784 times
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C++

```
15 #include <iostream>
16 #include <set>
17 #include <algorithm>
18 #include <cassert>
19 typedef long long int int64;
20
21 int main()
22 {
23     std::set<int64> Set;
24     int Q; std::cin>>Q;
25
26     while(Q-->0)
27     {
28         int query;
29         int64 val;
30         std::cin >> query >> val;
31         assert((query>=1) && (query<=3));
32
33         if(query==1)
34         {
35             Set.emplace(val);
```

```
36     }
37     else if(query==2)
38     {
39         if(Set.find(val) != Set.cend())
40             Set.erase( (Set.find(val)) );
41     }
42     else
43     {
44         (Set.find(val) != Set.cend()) ?
45             std::cout<<"Yes"<<std::endl:
46             std::cout<<"No"<<std::endl;
47     }
48 }
49 return 0;
50 }
51 }
```

Line: 51 Col: 1

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code

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✓ Test Case #0
✓ Test Case #3
✓ Test Case #6
✓ Test Case #9
✓ Test Case #12
✓ Test Case #15
✓ Test Case #18
✓ Test Case #21
✓ Test Case #24

✓ Test Case #1
✓ Test Case #4
✓ Test Case #7
✓ Test Case #10
✓ Test Case #13
✓ Test Case #16
✓ Test Case #19
✓ Test Case #22
✓ Test Case #25

✓ Test Case #2
✓ Test Case #5
✓ Test Case #8
✓ Test Case #11
✓ Test Case #14
✓ Test Case #17
✓ Test Case #20
✓ Test Case #23
✓ Test Case #26

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