B. Ping-Pong (Easy Version)

In this problem at each moment you have a set of intervals. You can move from interval (a, b) from our set to interval (c, d) from our set if and only if $c < a < d$ **or** $c < b < d$. Also there is a path from interval I_1 from our set to interval I_2 from our set if there is a sequence of successive moves starting from I_1 so that we can reach I_2.

Your program should handle the queries of the following two types:

1. "1 x y" $(x < y)$ — add the new interval (x, y) to the set of intervals. The length of the new interval is guaranteed to be strictly greater than all the previous intervals.
2. "2 a b" $(a \neq b)$ — answer the question: is there a path from a-th (one-based) added interval to b-th (one-based) added interval?

Answer all the queries. Note, that initially you have an empty set of intervals.

Input

The first line of the input contains integer n denoting the number of queries, $(1 \leq n \leq 100)$. Each of the following lines contains a query as described above. All numbers in the input are integers and don't exceed 10^9 by their absolute value.

It's guaranteed that all queries are correct.

Output

For each query of the second type print "YES" or "NO" on a separate line depending on the answer.

Examples

```
input
```

```
5
1 1 5
1 5 11
2 1 2
1 2 9
2 1 2
```

```
output
```

```
NO
YES
```