B. Ping-Pong (Easy Version)

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

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 Copy

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

output Copy

```
NO
YES
```

→ **Attention**

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Round #189 (Div. 2)

Finished

→ **Virtual participation**

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ **Problem tags**

dfs and similar graphs *1500

No tag edit access

→ **Contest materials**

- Announcement
- Tutorial (en)


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