Problem A
Points and Intervals

Time limit: 1 second
Memory limit: 2048 megabytes

Problem Description

You have been provided with n points and n intervals on the real number line. The i-th point is represented by the coordinate x_i, while the i-th interval is denoted as $[l_i, r_i]$ (inclusive).

We define that a point i is considered to be covered by an interval j if and only if the condition $l_j \leq x_i \leq r_j$ is satisfied. Your task is to determine whether it is feasible to pair each interval with exactly one point covered by that interval, ensuring that no point is used more than once.

Input Format

The first line of the input contains an integer t denoting the number of testcases.

The first line of eash testcase contains an integer n. The second line of each testcase contains n space-separated integers $x_1, x_2, \ldots, x_n$. Each of the following n lines contains two integers l_i and r_i, where the i-th line denotes the i-th interval.

Output Format

For each testcase, output `Yes` if it is possible to pair all the points and intervals. Otherwise, output `No`.

Technical Specification

- $1 \leq t \leq 10^5$
- $1 \leq n \leq 10^5$ for each testcase
- $1 \leq x_i \leq 10^9$ for $i = 1, 2, \ldots, n$ in each testcase
- $1 \leq l_i \leq r_i \leq 10^9$ for $i = 1, 2, \ldots, n$ in each testcase
- It is guaranteed that the sum of n across all test cases does not exceed 10^5.

Scoring

1. (40 points) $1 \leq n \leq 4$ for each testcase
2. (60 points) $1 \leq n \leq 500$ for each testcase
3. (20 points, bonus) No additional constraints.

Sample Input 1

```
7
3
4 3 5
3 5
5 6
2 3
3
2 6 6
3 5
5 6
2 3
4
10 11 8 5
1 8
4 5
8 11
10 12
3
3 4 99
1 4
3 100
87 87
3
1 2 3
3 4
2 4
1 4
3
10 2 8
10 10
1 10
7 9
1
100
101 102
```

Sample Output 1

```
Yes
No
Yes
No
Yes
Yes
No
```

Hint

A greedy algorithm can adequately solve this problem. Try to prove your solution before you hit the submit button!