

Points On a Line



Given n two-dimensional points in space, determine whether they lie on some vertical or horizontal line. If yes, print *YES*; otherwise, print *NO*.

Input Format

The first line contains a single positive integer, n , denoting the number of points.

Each line i of n subsequent lines contain two space-separated integers detailing the respective values of x_i and y_i (i.e., the coordinates of the i^{th} point).

Constraints

- $2 \leq n \leq 10$
- $-10 \leq x_i, y_i \leq 10$

Output Format

Print *YES* if all points lie on some horizontal or vertical line; otherwise, print *NO*.

Sample Input 0

```
5
0 1
0 2
0 3
0 4
0 5
```

Sample Output 0

```
YES
```

Explanation 0

All points lie on a vertical line.

Sample Input 1

```
5
0 1
0 2
1 3
0 4
0 5
```

Sample Output 1

```
NO
```

Explanation 1

The points do not all form a horizontal or vertical line.