Problem F
Production Management
Time Limit: 1 second

There are different phases to manufacture a product. Each phase can be performed automatically in an automated industrial conveyor belt, deployed as a segment in the two-dimensional space of the factory floor.

Each conveyor belt periodically sends its operating status to the **A**utomated **C**entral **M**anagement (ACM). The ACM is actually an antenna which is deployed along a straight line in the two-dimensional space of the factory floor.

A conveyor belt can transmit its operating status to any point in its projected segment on the line containing the antenna.

Please verify if we can find a position in the two-dimensional space of the factory floor to deploy the ACM so that the antenna can receive signals from all automated industrial conveyor belts.

Input

Each input contains multiple test cases. The first line of input is an integer T -- number of test cases ($1 \le T \le 100$). For each test case, the first line contains a positive integer $N \le 100$ denoting the number of conveyor belts in the factory. Each of the following N lines of a test case contains four real numbers $x_1\ y_1\ x_2\ y_2$, where (x_1, y_1) and (x_2, y_2) are the coordinates of the two endpoints of the conveyor belt. All real numbers have at most eight digits after the decimal point.

Output

For each test-case, display in a line YES if we can find a position for the antenna, and NO otherwise.

Sample Input

```
2
4
2 5 3 6
3 6 4 6
4 6 5 5
6 1 7 1
2
0 0 1 1
2 2 3 3
```

Sample Output

```
NO
YES
```