

# Maggu and Vectors

Maggu was teaching vectors using triangle diagrams to to his little brother. Now in the midst of lesson he went for a coffee and on returning finds all his triangles disassembled into constituent vectors by his naughty brother. He needs to recreate the triangles. He needs your help in doing this task quickly as he has to go for an internship interview.

## Input

First line will contain  $T$  ( $1 \leq T \leq 10$ ), the number of test cases. Each test case will consist of first line  $N$ , number of vectors. Next line will contain  $N$  ( $1 \leq N \leq 1000$ ) vectors of the form of  $a\ b$   $-1000 \leq a, b \leq 1000$ .

## Output

You have to print, in a new line for every test case, "YES" if any 3 vectors among  $N$  form a triangle, "NO" otherwise.

## Example

### Input:

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

### Output:

```
YES
NO
NO
```