

# Sherlock and Planes



## Problem Statement

Watson gives four 3-dimensional points to Sherlock and asks him if they all lie in the same plane. Your task here is to help Sherlock.

## Input Format

First line contains  $T$ , the number of testcases.

Each test case consists of four lines. Each line contains three integers, denoting  $x_i y_i z_i$ .

## Output Format

For each test case, print **YES** or **NO** whether all four points lie in same plane or not, respectively.

## Constraints

$$1 \leq T \leq 10^4$$

$$-10^3 \leq x_i, y_i, z_i \leq 10^3$$

## Sample Input

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

## Sample Output

```
YES
```

## Explanation

All points have  $z_i = 0$ , hence they lie in the same plane, and output is **YES**