

## Problem A. Point Location Test

**Time limit** 1000 ms

**Mem limit** 524288 kB

There is a line that goes through the points  $p_1 = (x_1, y_1)$  and  $p_2 = (x_2, y_2)$ . There is also a point  $p_3 = (x_3, y_3)$ .

Your task is to determine whether  $p_3$  is located on the left or right side of the line or if it touches the line when we are looking from  $p_1$  to  $p_2$ .

### Input

The first input line has an integer  $t$ : the number of tests.

After this, there are  $t$  lines that describe the tests. Each line has six integers:  $x_1, y_1, x_2, y_2, x_3$  and  $y_3$ .

### Output

For each test, print "LEFT", "RIGHT" or "TOUCH".

### Constraints

- $1 \leq t \leq 10^5$
- $-10^9 \leq x_1, y_1, x_2, y_2, x_3, y_3 \leq 10^9$
- $x_1 \neq x_2$  or  $y_1 \neq y_2$

### Example

Input	Output
3 1 1 5 3 2 3 1 1 5 3 4 1 1 1 5 3 3 2	LEFT RIGHT TOUCH