THE FINALE

Task:

You are steps away from capturing the noxious Kory!!! Your only job left now is to cut him off. Knowing that your car is running in a straigt line from point $p_1 = (x_1, y_1)$ to $p_2 = (x_2, y_2)$ and Kory is on point $p_3 = (x_3, y_3)$.

Your task is to determine whether Kory is on the left side or the right side of your car or did you already ran over him.

Input:

The first line of input contains t $(1 \leq t \leq 10^5)$. Each of the t remaining lines describe two line segments with six integers $x_1, y_1, x_2, y_2, x_3, y_3, x_4, y_4$. The first line segment goes through (x_1, y_1) and (x_2, y_2), the second line segment goes through (x_3, y_3) and (x_4, y_4).

The first input line has an integer t $(1 \leq t \leq 10^5)$: the number of tests.

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

Output:

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

Sample

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