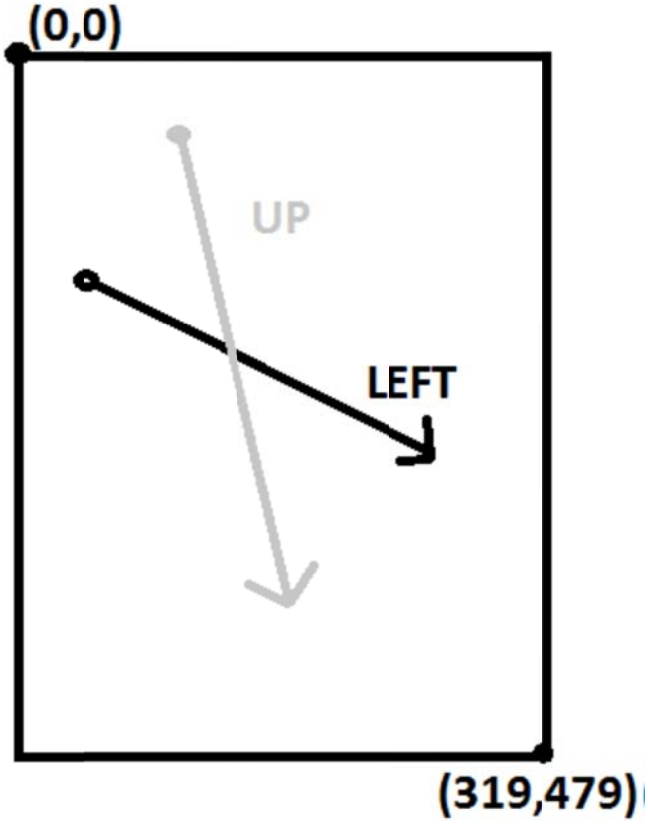
DEVELOPING FOR THE ePHONE

The ePhone is the latest innovation in touch-based mobile technology. As a part of the ePhone development team, you've been asked to develop the browser app for the ePhone. Your team has developed the browser, but it seems they've missed one crucial functionality. You cannot scroll a web page!

You're required to build the scrolling component of the browser app. The ePhone users can scroll left, right, up, or down on any page using the 'swipe' gesture. The swipe gesture consists of swiping your finger over the touch screen. If the user swipes left to right, it means he wants to scroll left. Similar gestures can be assumed for right, up, and down.

The ePhone has a screen resolution of 320 x 480. The top left corner of the screen has the coordinates (0,0) and the bottom right corner has the coordinates (319,479). The component you are developing will receive two coordinates c1 and c2. c1 denotes the point where the user touched the screen initially, and c2 denotes the point where the user lifted his finger off the screen. It can be assumed that the user drags his finger across the touch screen from point c1to c2in a straight line.

A problem arises when the user swipes in a direction that isn't exactly vertical or horizontal. For those cases, you need to figure out whether the swipe is closer to horizontal, or closer to vertical, and then scroll the page accordingly. The following image illustrates this concept.



Input
The first line consists of a positive integer indicating the number of test cases.
Each test case consists of a single line containing 4 integers- x1, y1, x2, y2. The pair (x1, y1) denotes point c1 and the pair (x2,y2) denotes the point c2. The line joining the points c1and c2will never be exactly Diagonal (i.e. at 45, 135, 225, 315 degrees).

Output
For each test case, print a single line containing the word 'left', 'right', 'up', or 'down' indicating the direction of scroll.

Sample

Input
2
4 5 100 15
300 400 250 300

Output
left
down