Snake Charmer

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

points: 100 · problem code: snakecharmer · author: jbroeksteeg

Note 1 - This problem was taken from AIO 2017. Visit orac2.info for more problems (would highly reccomend)
Note 2 - While this problem has a fairly simple greedy solution which you can use if you want, there is an alternative solution that is much easier to implement and prove.

Problem Description

You are a snake charmer performing for a travelling circus troupe. Your act is that you can move your snake along the integer points on a grid. Initially, you snake is at point (0,0) and facing up. You can make it do two moves:

An L move: make it turn left and then move forward by one square. An R move: make it turn right and then move forward by one square.

For example, if you start at (0,0) and do:

- R: Now at point (1,0) facing right
- L: Now at point (1,1) facing up
- L: Now at point (0,1) facing left
- R: Now at point (0,2) facing up
- L: Now at point (-1, 2) facing left

As you are not paid hourly, you want to do this as quick as possible - What is the shortest sequence of R and L moves by which you can move the snake to the given point?

Sample Input 1

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-1 2
```

Sample Output 1

```
RLLRL
```

Sample Explanation 1

In the description of the problem.

Constraints

$| x, y | \leq 5000$