

# Golden Data Recruiting Home Work

A car running in playground could be controlled by a controller.

A car's position and location is represented by a combination of x and y co-ordinates and a letter representing one of the four cardinal compass points. The playground is divided up into a grid to simplify navigation. An example position might be 0, 0, N, which means the rover is in the bottom left corner and facing North.

In order to control the car, controller sends a simple string of letters. The possible letters are 'L', 'R' and 'M'. 'L' and 'R' makes the rover spin 90 degrees left or right respectively, without moving from its current spot. 'M' means move forward one grid point, and maintain the same heading.

Assume that the square directly North from (x, y) is (x, y+1).

## INPUT:

The first line of input is the upper-right coordinates of the playground, the lower-left coordinates are assumed to be 0, 0.

The rest of the input is information pertaining to the cars that have been deployed. Each car has two lines of input. The first line gives the car's position, and the second line is a series of instructions telling the car how to explore the playground.

The position is made up of two integers and a letter separated by spaces, corresponding to the x and y co-ordinates and the car's orientation.

Each car will be finished sequentially, which means that the second car won't start to move until the first one has finished moving.

## OUTPUT

The output for each car should be its final co-ordinates and heading.

## INPUT AND OUTPUT

Test Input:

```
5 5
1 2 N
LMLMLMLMM
3 3 E
MMRMMRMRRM
```

Expected Output:

```
1 3 N
5 1 E
```

1. 代码设计，例如OO、职责分离、扩展性；
2. 代码的整洁、规范；
3. 测试，最好能 TDD；