5. Etch-a-Sketch

Program Name: Etch.java Input File: etch.dat

Ricardo has been playing with his little brother's travel sized Etch-a-Sketch for a while. A travel sized Etch-a-Sketch has a film in a 25 unit long by 15 unit tall rectangular frame that has a moveable stylus. There are two knobs that control the movement of the stylus. The left knob moves the stylus left or right and the right knob moves the stylus up or down. Ricardo has decided that it would be fun to have a program that would simulate the movement of the stylus in an Etch-a-Sketch frame. You have agreed to write a simple simulator for him.

The simulator will draw a picture by reading a series of commands from a data file. Each command is a composed of a single letter `L`, `R`, `U`, or `D` (for left, right, up, or down respectively) that denotes the direction of the move and a single integer denoting how many units the stylus will move in the given direction. For your purposes, the upper left corner of the frame has coordinates 1, 1. If the command given would move the stylus off the frame, the stylus just stops at the edge of the frame and continues from there for the next instruction.

Input

The first line of input will contain a single integer `n` that indicates the number of pictures that will be drawn. For each picture:

- The first line will contain an ordered pair `r c` denoting the row and column respectively of the initial location of the stylus relative to the upper left corner, `1 1`. That location is considered to be drawn.
- The second line will contain a series of moves, separated by a space, in the form *dx* where *d* is the direction (`L`, `R`, `U`, or `D`) and *x* is the distance the stylus is to be moved.

Output

For each picture, you will print the 15 x 25 unit matrix that is the result of all of the moves in a given picture. A period (`.`) is a point that was not drawn and an asterisk (`*`) is a point that was drawn. Print at least one blank line after each picture.

Example Input File

```
1
5 5
R10 D10 L5 U5 R10 D10 U5 L3 U5 R4 U13 L22 D5 R4
```

Example Output to Screen

```
**********************....
*.....................*....
*.....................*....
*.....................*....
*...**********.*****....
*****.........*.*........
..............*.*........
..............*.*........
..............*.*........
.........***********.....
.........*....*....*.....
.........*....*....*.....
.........*....*....*.....
.........*....*....*.....
.........******....*.....
```