BotClean Large

MegaMaid is a robot whose function is to move through a matrix and clean all of its *dirty* cells. It's positioned in some cell of an $h \times w$ matrix of *dirty* (`d`) and *clean* (`-`) cells. It can perform five types of operations:

- `LEFT`: Move one cell to the left.
- `RIGHT`: Move one cell to the right.
- `UP`: Move one cell up.
- `DOWN`: Move one cell down.
- `CLEAN`: Clean the cell.

Given the robot's current location and the configuration of *dirty* and *clean* cells in the matrix, print the *next* operation MegaMaid will perform (e.g., `UP`, `CLEAN`, etc.) on a new line.

Input Format

The first line contains two space-separated integers describing the respective x (row) and y (column) coordinates of MegaMaid's initial location.
The second line contains two space-separated integers describing the respective height, h, and width, w, of the matrix.
Each line i of the h subsequent lines contains a string of w characters describing row i in the matrix; each character j describes the character at location (i, j) according to the following key:

- `b` denotes MegaMaid's location (in a clean cell).
- `d` denotes a dirty cell.
- `-` denotes a clean cell.

Note: If MegaMaid is initially located in a dirty cell, the cell will be marked with a `d` (not a `b`).

Constraints

- $1 \leq w \leq 50$
- $1 \leq h \leq 50$

Output Format

Print the next operation MegaMaid will perform (i.e., `LEFT`, `RIGHT`, `UP`, `DOWN`, `CLEAN`). It's important to only print the *next* operation, because your program will be called iteratively after performing each operation.

Sample Input

```
0 0
5 5
b---d
-d--d
--dd-
--d--
----d
```

Sample Output

```
RIGHT
```

Explanation

MegaMaid's next move would be to move `RIGHT`, resulting in the following *next* state:

```
-b--d
-d--d
--dd-
--d--
----d
```