Problem F
Smart Care Center II

Time limit: **3 seconds**
Memory limit: **1024 megabytes**

Problem Description

Following the initial prototype, Jim realized that stopping the simulation immediately isn't very useful for data analysis. He wants to know how dangerous a specific path is by counting how many times the elderly person steps into a hazardous area.

Jim updates the simulation rules for Version 2.0:

- Wall Logic (Safety Barrier): If an instruction causes the person to move Outside the Grid boundaries, the wristband detects the barrier and IGNORES that instruction. The person stays in the current position. They do not fall.
- Puddle Logic (Risk Counter): If the person moves into a Puddle, they DO NOT fall. Instead, the system increments a Risk Score by 1. The person successfully moves into that zone and continues the simulation. The starting position does not count towards the Risk Score

The Movement Rules are shown as follows:

- Directions are represented by integers: `0` (North), `1` (East), `2` (South), `3` (West).
- Instructions string consists of:
  - `F`: Move forward one step in the current direction.
  - `R`: Turn right (90 degrees clockwise).
  - `L`: Turn left (90 degrees counter-clockwise)

Your task is to simulate the entire sequence of instructions and report the Total Risk Score.

Input Format

The input consists of multiple test cases until EOF. Each test case contains $R + 3$ lines. The first line contains two integers R and C (Rows and Columns of the map). Each of the following R lines contains C integers consists of `0` or `1`, representing the $R \times C$ grid. The $R + 2$ line contains three integers sr, sc and dir, which represent the starting row and column (0-indexed) (sr, sc) and the initial direction dir (`0`:N, `1`:E, `2`:S, `3`:W). The last line contains a string of instructions.

Output Format

For each test case, output the total Risk Score (the number of times the person stepped onto a Puddle)

Technical Specification

- $1 \leq R, C \leq 50$
- $0 \leq sr < R$
- $0 \leq sc < C$
- $0 \leq dir \leq 3$
- The instruction length is at most 100.

Sample Input 1

```
3 3
0 0 1
0 1 0
0 0 0
0 0 1
FFFF
3 3
0 1 0
0 1 0
0 0 0
1 1 0
FRRF
```

Sample Output 1

```
1
2
```