

[0 pts] Cinema Exit

Bad days have gone there is no pandemic anymore and you bought a movie ticket to celebrate. Everything has been going well so far, but when the movie has started, your house owner called and told you to come home as soon as possible. Now, you need to leave without disturbing any person in the theater!

The theater has NxM seats. Here are the possible steps to go to the exit:

- U: move one cell Up,
- D: move one cell Down,
- L: move one cell Left,
- R: move one cell Right, and
- M(i): go to the i-th step

For example, if you follow the list of steps

- 1: U
- 2: R
- 3: M(6)
- 4: D
- 5: M(1)
- 6: L
- 7: M(4)

you move Up (line 1), then Right (2), then go to step 6 (3), then move Left (6), then go to step 4 (7), then move Down (4), then go to step 1 (5), then move Up (1), etc.

Your task is as follows: with a given list of steps find the minimum number of steps that you need to follow to reach the exit without disturbing anyone in the audience.

Your code should accept an input file with the given format, and should output a file with the given format.

Input file format:

H: Height of the theater, W: width of the theater

For the following H lines:

W symbols to indicate the seat status where E:Exit, X:Audience, Y:You

Output file format:

D: the minimum number of steps that you need to follow

Example input file:

2,5
E,X,-,-
-,-,-X,Y

Exit ➡	X 👤	-	-	-
-	-	-	X 👤	YOU

Figure 15: Example case

Take the following steps in order:

- 1: N
- 2: W
- 3: W
- 4: S
- 5: W
- 6: W
- 7: N

Example output file:

7