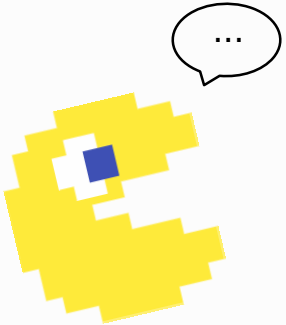

LEVEL 5



Pacman: Now there is only one coin on the board. But the ghosts have started to move again.

Your task: Find a path that will collect the coin without getting caught by a ghost.

- You are given a game board that follows the same rules as in the previous levels.

  There is only one coin on the board. There are now cells with an ‘E’ in it - empty cells - which means they are traversable but do not have a coin in it.

- There are multiple ghosts. For each of them you are given a movement sequence (like in level 3). Once that sequence ended, they will move back to their initial position, by inverting their movement sequence (‘DRUU’ will become ‘DDLU’). Once they arrived at their initial position, they will start moving with their sequence again and so on.

- **Find a movement sequence for Pacman that collects the coin without getting caught by a ghost.** (It does not have to be the shortest path, as long as it’s within the maximum movement sequence length, the solution is correct)

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Hint: all the ghosts movement
patterns have the same length
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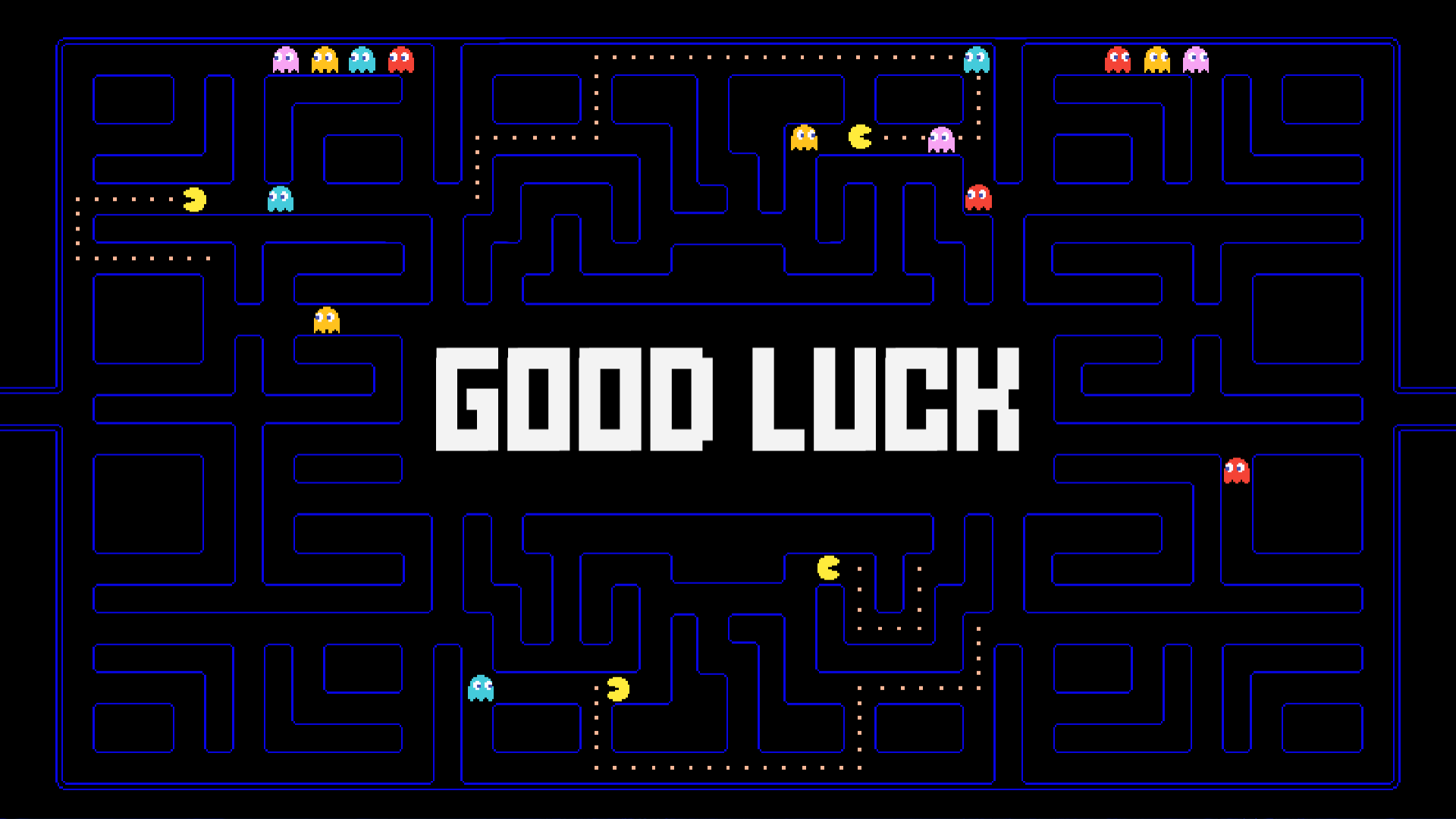
	Input	Output
Format	N boardMatrix (the above row is repeated numberOfRows times) pacmanRow pacmanColumn numberOfGhosts ghostRow ghostColumn sequenceLength movement (repeated sequenceLength times) (the 3 above lines are repeated numberOfGhost times) maxMovementSequenceLength	movementSequence
Types	N (int): the number of rows and columns of the board (range: 1 - 100) boardMatrix (StringList): N strings with the length of N pacmanRow (int): the row that Pacman is in (starting with 1) pacmanColumn (int): the column that Pacman is in (starting with 1) sequenceLength (int): the lenght of a movement sequence movement (char): a movement that an object will execute numberOfGhosts (int): the number of ghosts ghostRow (int): the row that the ghost is in (starting with 1) ghostColumn (int): the column that the ghost is in (starting with 1) maxMovementSequenceLength (int): the maximum amount of steps that Pacman can take (always 500000 in this level)	movementSequence (String): a sequence of movements that will collect the final coin

	Input	Output
Example	7 WWWWWWW WEEEPEW WEWWWEW WEWWWEW WGWWWCW WEGEEEW WWWWWWW 2 5 2 5 2 5 DRLRR 6 3 5 RRLLR 500000	RDDD The ghost that starts on ‘5 2’ will visit the following cells in order: ‘5 2’,'6 2','6 3','6 2','6 3','6 4','6 3','6 2','6 3','6 2','5 2' Once it it’s his initial cell ‘5 2’ it will start with the same pattern again. (DRLRRLLRLU) This solution is correct, since it will collect the coin, however there would be many other correct solutions.


GOOD LUCK