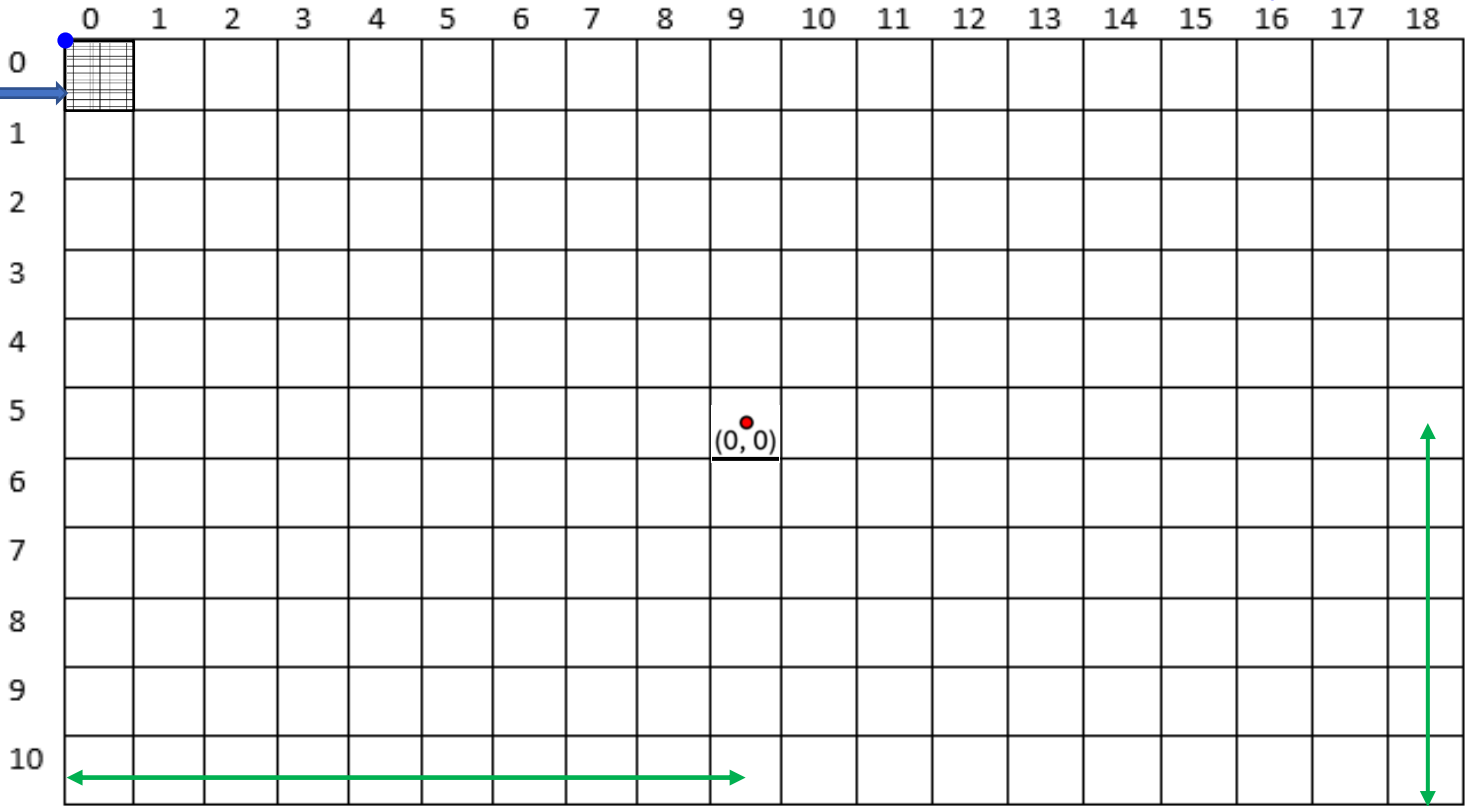Turtle canvas: 11 rows x 20 by 19 columns x 20 => 220 by 380

These are the dimensions we use when drawing with the turtle -> (x,y)

maze_1.txt: 11 rows (mazeHeight) by 19 columns (mazeWidth)

1 cell of the maze transformed into part of the Turtle canvas: 20 by 20

(0, 0)

Half of canvas height = mazeHeight*cellSize/2 = 110

Half of canvas width = mazeWidth*cellSize/2 = 190

Half of cell = cellSize / 2 = 10

Turtle canvas: 11 rows x 20 by 19 columns x 20 => 220 by 380

maze_1.txt: 11 rows (mazeHeight) by 19 columns (mazeWidth)

1 cell of the maze transformed into part of the Turtle canvas: 20 by 20

Half of canvas height = mazeHeight*cellSize/2 = 110

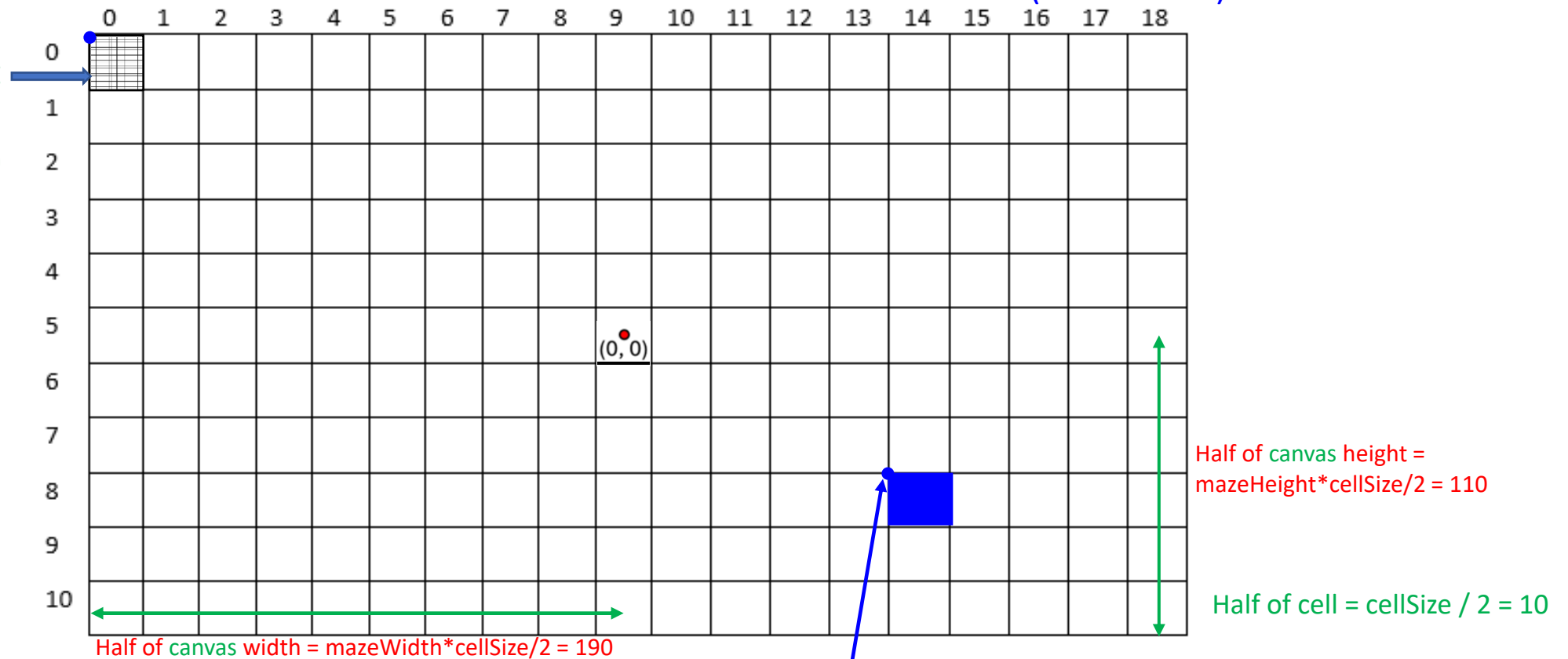Half of cell = cellSize / 2 = 10

Half of canvas width = mazeWidth*cellSize/2 = 190

Let's computes the centre coordinate x and y of the cell row = 8 and column = 14:

mazePositionToCoordinate(column, row, mazeWidth, mazeHeight, cellSize = 20)

$\Rightarrow$ x = column * cellSize + cellSize / 2 − mazeWidth * cellSize / 2 = 100   <- check?

$\Rightarrow$ y = mazeHeight * cellSize/2 - row * cellSize − cellSize / 2 = -60   <- check?

$\Rightarrow$ Answer: (100, -6) <- coordinates of centre of cell at row 8 and column 14!

Turtle canvas: 11 rows x 20 by 19 columns x 20 => 220 by 380

maze_1.txt: 11 rows (mazeHeight) by 19 columns (mazeWidth)

1 cell of the maze transformed into part of the Turtle canvas: 20 by 20

Half of canvas height = mazeHeight*cellSize/2 = 110

Half of canvas width = mazeWidth*cellSize/2 = 190

Half of cell = cellSize / 2 = 10
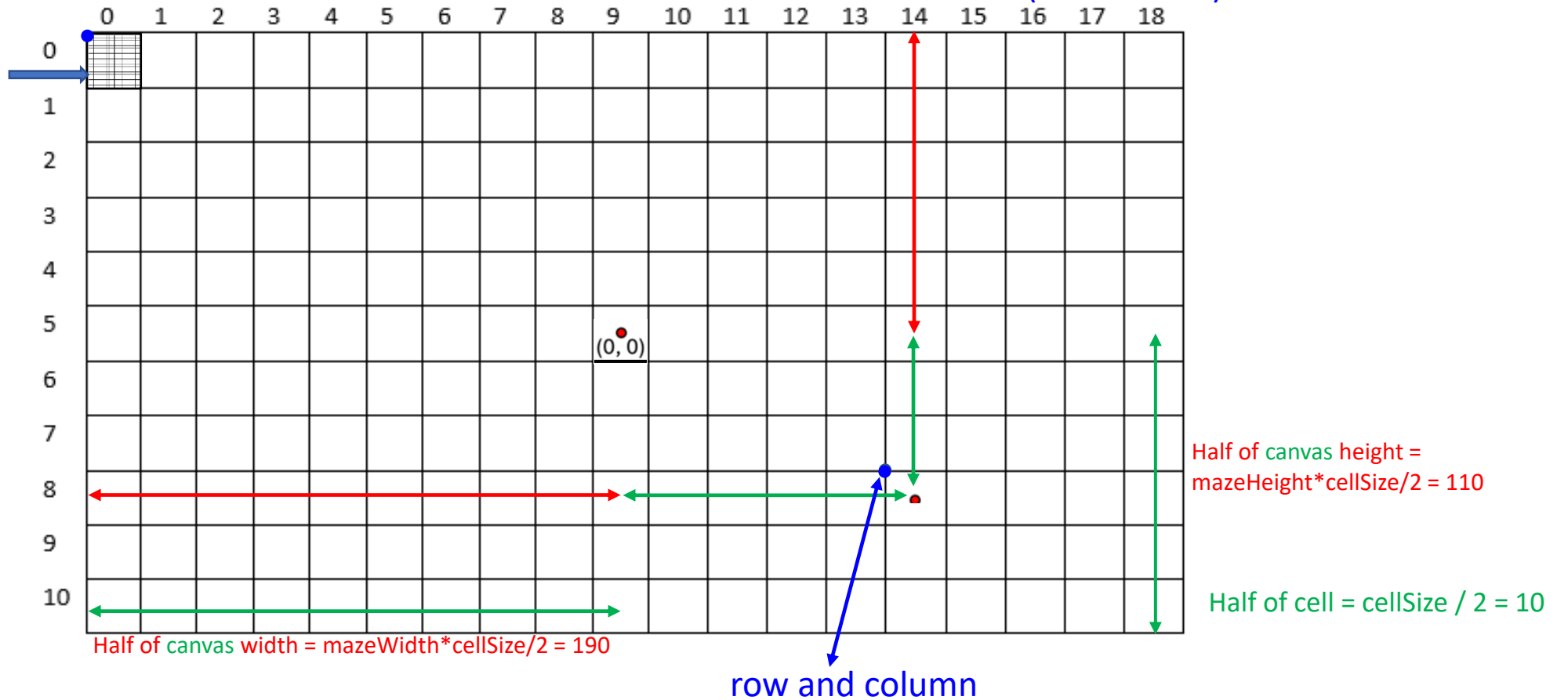
row and column

Let's computes the row number and column number of cell with centre coordinate (100, -60)

coordinateToMazePosition(x, y, cellSize = 20)

$\Rightarrow$ column = (_____ + ___) / _____ = 14.5 then int(column) = 14 <- check?

$\Rightarrow$ row = (_____ − ___) / _____ = 8.5 then int(row) = 8 <- check?

$\Rightarrow$ Answer: cell at row 8 and column 14 has centre coordinate (100, -60)