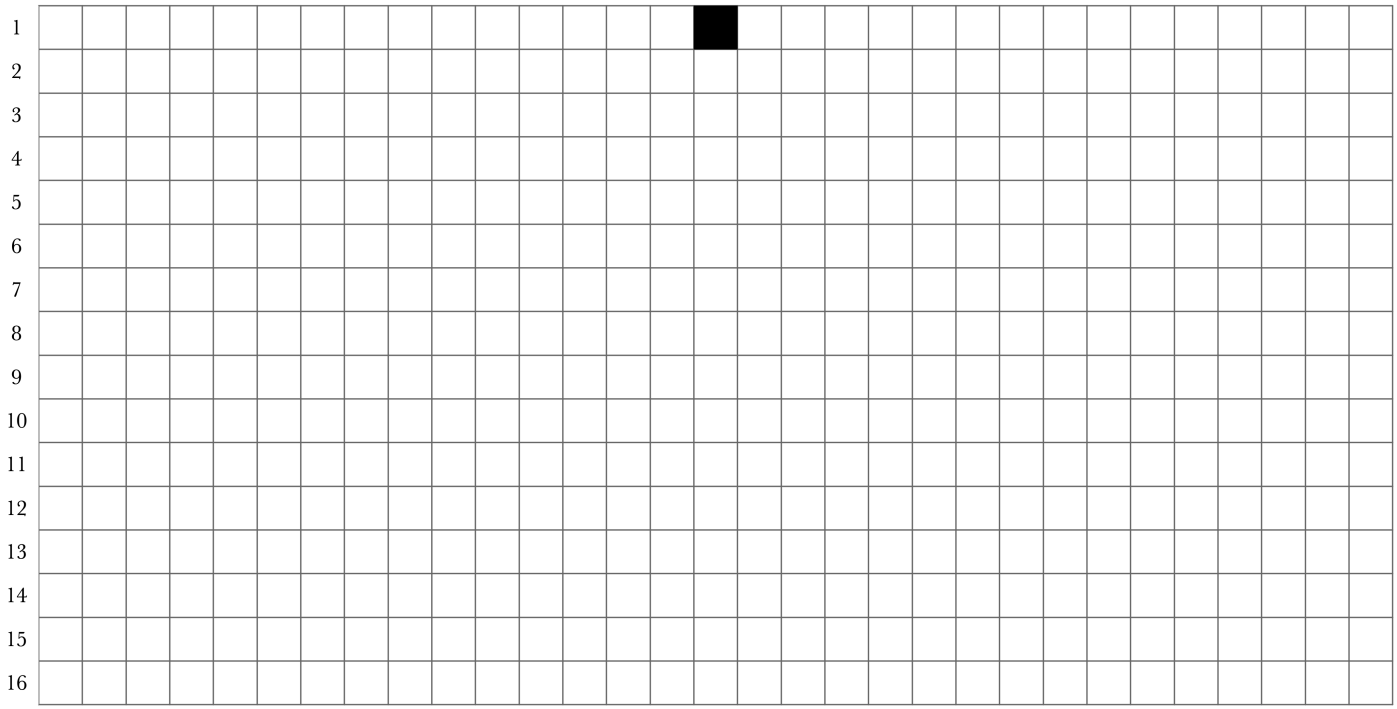
Lecture 05 Activity

COSC 225: Algorithms and Visualization, Spring 2023

Name: _____

For this exercise, you will fill simulate the cellular automata, Rule 90, by hand. To start, how do you express the number 90 in binary?

Use the binary expression for 90 to fill out the following guide for Rule 90. That is, the cell below the three cells labeled 1 should be shaded if the 1s bit of 90 is 1, and unshaded otherwise.

Fill out the grid below according to Rule 90, using shaded/unshaded cells above as your guide. The first generation (consisting of a single cell in state 1) has been drawn already, so you need only draw generations 2 through 16.