Project 1 Cellular Automata Rule 45 Big O

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To implement Wolfram's Rule-45, I've created an array containing large amount of values. The first 400 elements of the array all contain the value 0's except for the 200th index where it contained the value of 1. Values after index 400 were filled in by the Wolfram's Rule-45 using nest for loops alongside some if statements. To display the squares on the grid, I've used a single for loop to "activate" the cell if needed.

The algorithm uses a double nested for loop and a single for loop. The double nested for loop will have a complexity of O(n^2) and the single for loop will have a complexity of O(n). Thus this program will have a complexity of O(n^2 + n) which equals to O(n^2).