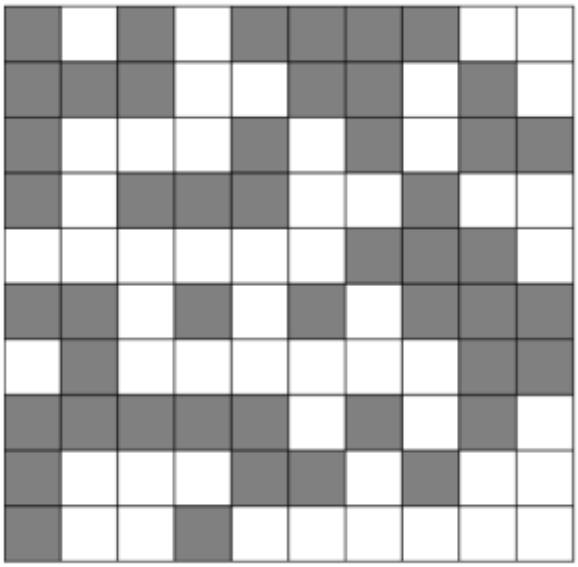
Percolation Theory

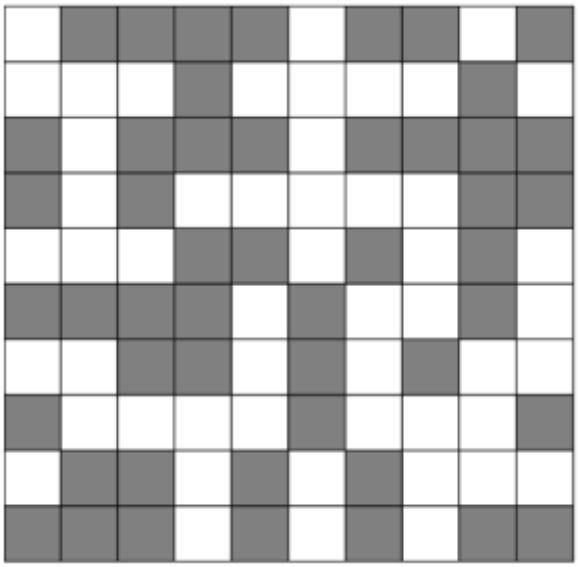
Math 242

It's easy to look at a grid of open and closed squares, such as the examples below, and see whether or not a percolation path exists. (That is, a path of open squares from the top to the bottom of the grid.) It's rather tricky to program a computer to determine whether or not a percolation path exists. Using the example grids below, think carefully about exactly how you determine whether a percolation path exists and how to write an algorithm to do this.

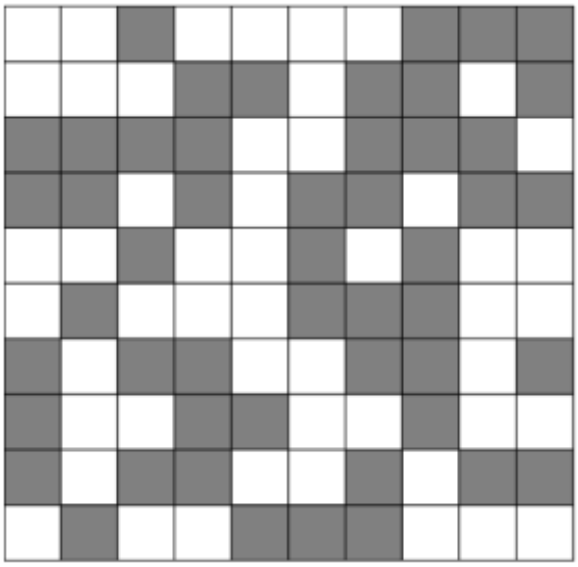
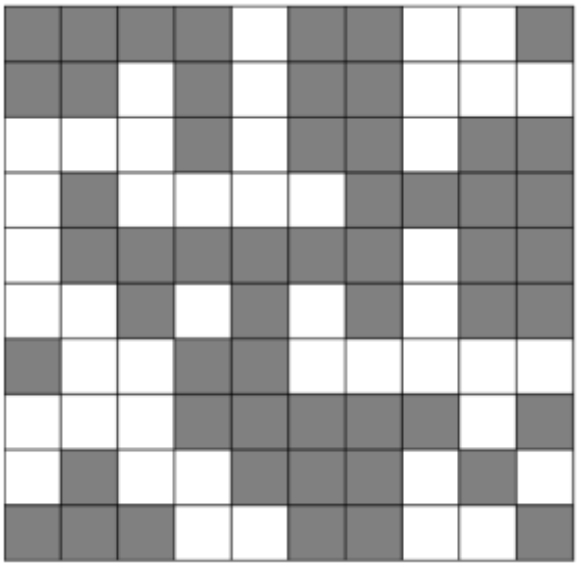
1.



2.



3.



4.