

Participation 6

Due Thursday, July 31, at 9 AM (GMT-7)

CSc 345 – Summer 2014

Instructor: Qiyam Tung

Instructions

1. This is an individual assignment. You must do your own work.
2. If you are having difficulty and need to ask a question you can:
 - (a) Ask questions in class.
 - (b) Stop by my office hours (or make an appointment).
 - (c) Post a question on Piazza.
 - (d) Post a private question on Piazza if the question is too specific.
3. Show all work. I will be grading on whether you put effort into this problem (i.e. participation) and not correctness. Showing your work helps me identify your thought process and helps me with grading.
4. You may write your solutions by hand, or you may type them using any appropriate program such as Microsoft Word, OpenOffice Writer, \LaTeX , etc. . . .
However, the final copy should be in PDF form and formatted so that it is legible.

Maze Construction

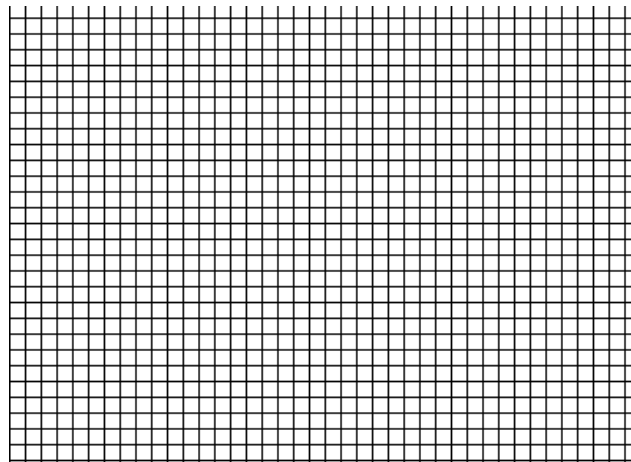


Figure 1: Construct a maze given the grid.

Given a grid 1, assuming that each point is a vertex in a graph and each wall is an edge, develop an algorithm that would randomly construct a maze. Explain how your algorithm would always construct a maze. Note that a maze does not have to be hard or complicated. *Hint: think about what properties the resulting subgraph would have.*