

COT 4521-001: Introduction to Computational Geometry (Fall 2019)

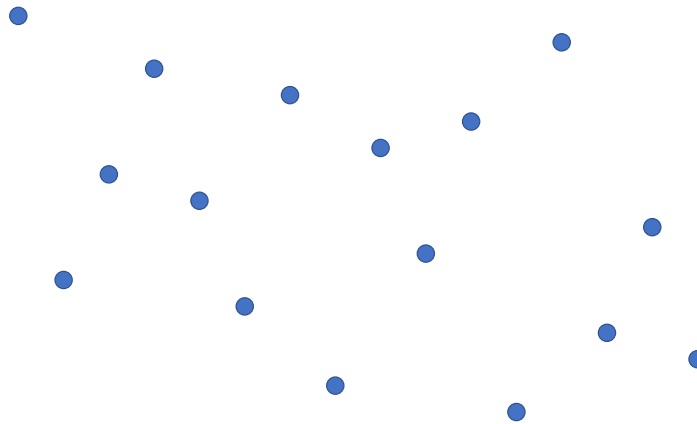
Worksheet 8

1 Ground Rules

This assignment is intended to be done alone. You may ask others for high-level help. However, the answer must be yours. For all questions we expect you to show your work!

2 Assignment

- For the following point set, find perform spatial subdivision using a: grid; quadtree; and kd-tree. Show the algorithm using the following pages. Be sure to show all of the steps and the order of steps for the algorithm (show both the division and resulting tree).



- For each algorithm, determine some example point sets which produce best and worst case spatial subdivision and query time.

3 Submission

Upload your answers and associated work to canvas as a single scanned, typed, or photographed PDF document. Be sure that your submission is legible.

