Problem Set 6

Due dates: Electronic submission of the pdf file of this homework is due on **3/7/2019 before noon** on ecampus, a signed paper copy of the pdf file is due on **3/7/2019** at the beginning of class.

Name: (put your name here)

Resources. (All people, books, articles, web pages, etc. that have been consulted when producing your answers to this homework)

On my honor, as an Aggie, I have neither given nor received any unauthorized aid on any portion of the academic work included in this assignment. Furthermore, I have disclosed all resources (people, books, web sites, etc.) that have been used to prepare this homework.

Signature: _____

Read chapter 22 in our textbook before attempting to answer these questions.

Problem 1 (20 points)**.** Solve Exercise 22.1-5 on page 593 of our textbook.

Solution.

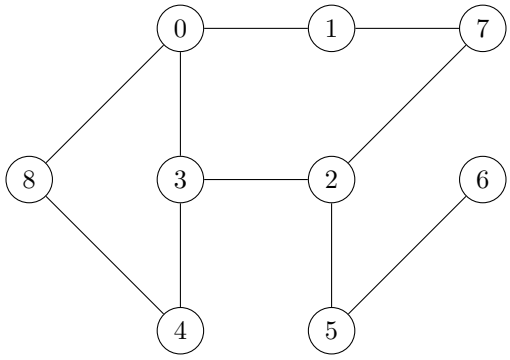
Problem 2 (20 points)**.** Solve Exercise 22.1-7 on page 593 of our textbook.

Solution.

Problem 3 (20 points)**.** Solve Exercise 22.2-6 on page 602. Use tikz to draw the graph in your LaTeX document.

Solution.

For the next two problems, use the following graph $G = (V, E)$.



Problem 4 (20 points)**.** Describe the order in which nodes of the graph G are processed in BFS when the start node is 8 and neighboring nodes are taking in increasing order (smaller labels are enqueued first).

Solution.

Problem 5 (20 points)**.** Describe the order in which nodes of the graph G are processed in DFS when the start node is 8 and neighboring nodes are taking in increasing order.

Solution.

Discussions on ecampus are always encouraged, especially to clarify concepts that were introduced in the lecture. However, discussions of homework problems on ecampus should not contain spoilers. It is okay to ask for clarifications concerning homework questions if needed. Make sure that you write the solutions in your own words.

Checklist:

- ☐ Did you add your name?
- ☐ Did you disclose all resources that you have used?
  (This includes all people, books, websites, etc. that you have consulted)
- ☐ Did you sign that you followed the Aggie honor code?
- ☐ Did you solve all problems?
- ☐ Did you submit (a) the pdf file of your homework?
- ☐ Did you submit (b) a hardcopy of the pdf file in class?