

CS305: Homework 3

Assigned: Friday, April 12, 2024

Due: Friday, April 19, 2024

- Do all of the following problems. **Show your work.** Homework submissions must be **typed** and submitted to the Spring as a **pdf**.
- You may work with others on the homework, but you **MUST** acknowledge the people you worked with at the top of your homework submission. Do **not** look at the web for solutions to homework problems. Looking for solutions does **not** help your problem solving powers.

Problems

Note that the book separates things into exercises and problems with exercises appearing at the end of a section and problems (which tend to be longer) appearing at the end of the chapter.

1. Exercise 19.3-2
2. Exercise 20.2-4, also write out the line(s) of pseudocode of this modified BFS. State clearly which line(s) would change from the BFS algorithm given in section 20.2 and what those line(s) would change to.
3. Exercise 20.4-5, but you do not need to provide an explanation to what happens if G has cycles.
4. How many topological sort orderings are there for the following graph?

