

CS180 Fall 19 Homework 3

assigned 10/16, due 10/23 at 9:59 am

All algorithms/proofs should be in bullet form: step by step or psuedo code.

1. Exercise 10 Page 110
2. Exercise 6 on page 108
3. Exercise 12 on page 112
4. Exercise 3 on page 189
5. Exercise 6 on page 191
6.
 - (a) Can you design an algorithm that finds the longest path in a directed graph (DG)? (you can use an edge at most once)? If yes, describe the algorithm and analyze its time complexity.
 - (b) Can you design an algorithm that finds the longest path in a directed acyclic graph (DAG)? (you can use an edge at most once)? If yes, describe the algorithm and analyze its time complexity.