

# Analysis of Algorithms

CS 375, Fall 2018

Homework 19

Due by the end of the day Thursday, December 6.

- **Reading Assignment:**

- From the lecture notes, **please read the slides from today’s lecture that we didn’t actually cover in lecture.** We’ll talk about them on Wednesday.
  - From your textbook (Levitin), please read Chapter 11 (you can skip Sections 11.2 and 11.4).
  - From CLRS, please read Chapter 34.
- Please note that any exercise from CLRS (rather than from Levitin) will be explicitly marked below as “CLRS Exercise,” and I will give a page number on which the exercise can be found in the CLRS 3rd edition (electronically available through Colby’s library). Exercise numbers not marked as being from CLRS are from Levitin, as usual.
  - *A general note:* When writing up your homework, please write neatly and explain your answers clearly, giving all details needed to make your answers easy to understand. Graders may not award credit to incomplete or illegible solutions. Clear communication *is* the point, on every assignment.
  - **Note the atypical due date / time for this assignment!**

## Exercises

1. Exercise 11.3.8.
2. CLRS Exercise 34.2-6 (pg. 1066). Consider graph  $G$  to be undirected for this exercise. (The fact that CLRS refers to HAM-PATH as a “language” isn’t too important; this was something mentioned in the lecture notes slides for today’s reading, but it hasn’t yet been emphasized in lecture. Treat it as a computational problem, the way we’ve done with others: An instance of this problem is a graph  $G$  and vertices  $u, v$  in  $G$ .)
3. CLRS Exercise 34.5-6 (pg. 1101). Once again, consider graph  $G$  to be undirected for this exercise.