

Enter your name here.

# CSCI 4470 – Algorithms

## Homework 1 Due Thursday September 5, 2024

Answer the questions below. If you do your solution in LaTeX, please write your answers in the areas outlined with `\Blue{ . . . . }`. If you write out your solution, please be sure to have the problems in the correct order in your submission. In either case, turn in a single pdf document on eLC.

*50 points total*

1. *10 points* 3-5c on page 72
2. *10 points* 4.3-3 on page 95
3. *10 points* 6.5-7 on page 177
4. *20 points* 6-2 on page 179 ( $d$ -ary heaps)
5. *10 points* 7.4-5 on page 198 – You do not need to redo the entire expected runtime analysis. Discuss how the analysis changes when the recursion is coarsened.