Tentative Homework Problems – Part 1 CS 24, Spring 2025 Eighth Edition

About the required reading

focus only on those sections of the text which pertain to the definitions or assigned problems

work backwards as follows:

for each definition, read enough of the text to understand the definition for each homework problem, read enough of the text to do that problem

Complexity

Section 3.2 big-O big-O, big-Omega, big-Theta 2, 4, 8ab, 10, 12, 14, 20-28 (even), 36, 37

Section 3.3

problem specification, algorithm description, algorithm analysis time complexity function solvable, decidable, worst-case polynomial time complexity, tractable, P, NP, NP-hard, NP-complete

Recursive Functions

Section 8.1

2,4,6,8,19,30

Section 8.2

linear, homogeneous recurrence relation of degree k with constant coefficients 2,4,5,8

Section 8.3

8,10,11,14,15,16

Problems/Algorithms/Analysis Halting Problem Towers of Hanoi