CS 362, Algorithms & Data Structures, Spring 2022
Homework 1
Due Friday, February 11, 2022, 11:59pm

General Instructions: There are only 3 problems, but they are worth 20 points each. Each of these problems involves algorithm design, proofs, and some deep thinking, so get started right away!

Start each problem on a new page! It is preferable if your solution is typeset using a program such as Latex (for instance, using Overleaf), or any other document preparation software with good math support. However, a scanned handwritten solution is acceptable, as long as it is legible.

Include a cover sheet with your name (and partner's name, if applicable), but do not put your names on the problem solution pages.

Submit your solution on GradeScope, using its interface to tell it which pages correspond to each problem.

Problem 1

(20 points) Problem 4.18 from Kleinberg & Tardos. (Travel problem where the edge weights change over time.)

Problem 2

(20 points) Problem 4.20 from Kleinberg & Tardos. (Minimum-altitude connected subgraphs.)

Problem 3

(20 points) Problem 4.28 from Kleinberg & Tardos. (CluNet spanning tree.)