Homework 1

Due: Friday, February 2, 2018 at 2 p.m.

- TA office hours are on Tuesdays 4–6pm in CIT 207.
- If you absolutely can’t go to office hours, you can contact the staff at cs1951gtas@cs.brown.edu.
- If you work together on the homework, include your partners’ names at the top of your handin. However, your solutions must be written independently. The full collaboration policy can be found in the syllabus.
- Please typeset your solutions in \LaTeX with the template provided on the course website.
- You must hand in the printed solutions before class.

Problem 1

Exercise 2.2 from the text book (pg. 16).

Problem 2

Exercise 2.4 from the text book (pg. 17).

Problem 3

Exercise 2.5 from the text book (pg. 19).

Problem 4

Exercise 2.13 from the text book (pg. 23). In addition please answer the following “zero-th” part:
(0) Explain, in a short paragraph, the meaning of each constraint.

Note: The optimization problem is over both the $x_1, \ldots, x_n$ and $y_1, \ldots, y_T$ variables. The other quantities should be assumed to be known values.