ESE 605-001: Modern Convex Optimization

Spring 2021

Homework 2

Assigned: 02/16/2021 Due: 02/26/2021

Homework must be LATEX'd or it will not be graded.

You are expected to provide complete and rigorous solutions to all questions. Do not leave portions of your solutions as "exercises for the grader."

Problems from Boyd & Vandenberghe: 3.22(a-c), 3.26, 3.32, 3.36 (any 3), 3.39(a-c), 4.4, 4.5, 4.11, 4.12, 4.17

Bonus questions: Bonus questions are completely optional. If a certain threshold of correctness is exceeded, you will earn up to an additional 2 marks per question on your assignment grade. These are fun, challenging problems, and we ask that you try your best to get as far into the proofs/answers as you can without consulting any outside sources! Once you get stuck, indicate the point at which you were stuck in your solutions with a "I made it this far on my own," after which, you should indicate what outside source you consulted in order to finish the problem, in accordance with the Penn Academic Integrity policy.

- 1. B&V 3.22(d)
- 2. B&V 3.39(d)
- 3. stay tuned, two more problems to be posted shortly