

# Final Exam for EE227C (Spring 2018): Convex Optimization and Approximation

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## Rules

- The final is due on Gradescope at 8:00pm Friday, May 10th.
- Collaboration is forbidden.
- Please ask all questions via *private* messages on Piazza. Do not email me and do not post publicly (even if you think “nothing will be given away”).
- I will be maintaining a list of errata on Piazza. Please consult this before asking a question about a typo that’s already been addressed.
- The final must be LaTeXed. Points will be deducted otherwise. Remember to write  $\langle x, y \rangle$  instead of  $< x, y >$ ; the latter is ugly, a pain to follow when grading, and will result in loss of points.
- You may use anything in the course notes or one of the course texts as given. In particular, you can cite theorems and equations from course notes and materials, but please point me to the lecture number and the statement you are citing. You may also use any standard references on calculus, analysis or linear algebra. You may not Google anything or use the web (except perhaps to find a standard textbook to download)
- Optional problems are not for credit, but may give you good Karma.

**Problem 1:**

**Problem 2:**

**Problem 3:**