CS 5800: Algorithms

Homework 13: Linear Programming, RSA

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## **Problems**

- 1. (20 pts) Exercise 29.1-5.
- 2. (20 pts) Exercise 29.1-6.
- 3. (20 pts) Exercise 29.1-9.
- 4. (20 pts) Exercise 29.2-6.
- 5. (20 pts) Exercise 29.3-6 by hand (on paper).
- 6. (30 pts) Implement the Extended form of Euclid GCD algorithm: for two input integers a, b, return integers m, n such that GCD(a, b) = m \* a + n \* b. Submit the code to Dropbox, no need for demo with TAs.
- 7. (20 pts) Exercise 31.7-1.
- 8. (20 pts Extra Credit) Exercise 31.7-2.
- 9. (50 pts Extra Credit) Implement the Simplex algorithm.