Math 416: HW 9 due Friday, April 15, 2016.

Webpage: http://dunfield.info/416

Office hours: I have my usual office hours the week of March 28: Mon 3:30–4:30, Wed 11–12, Thur 3:30–4:30, and by appointment. My office is 378 Altgeld Hall.

Problems:

1. Section 5.3 of [FIS], Problem 1 parts (c-j).

2. Prove Theorem 5.15 on page 290 of [FIS] and its two corollaries on page 291.

3. Prove that if a 1-dimensional subspace W of $\mathbb{R}^n$ contains a nonzero vector with all nonnegative entries, then W contains a unique probability vector.

4. Section 5.3 of [FIS], Problem 7.

5. Section 6.1 of [FIS], Problem 3.

6. Section 6.1 of [FIS], Problem 8 parts (a) and (b).

7. Section 6.1 of [FIS], Problem 9.

8. Section 6.1 of [FIS], Problem 10 and Problem 15(a).

9. **Postponed to HW 10.** Section 6.2 of [FIS], Problem 2 parts (b, c, g).

10. **Postponed to HW 10.** Section 6.2 of [FIS], Problem 7.