Second Homework Assignment for Math 496 and 827

Due: Friday, February 13th, in class.

All references are to the Bertsimas and Tsitsiklis text.

Problems for Math 496 and 827:

1. Show how to the Farkas lemma can be derived from the theorem of alternatives shown in class.
2. Exercise 4.5.
3. Prove that if a linear program has a unique optimal solution, then its feasible region has an extreme point.
4. Exercise 3.12.
5. Exercise 3.19.

Problems mainly for Math 827:

6. Exercise 4.10.
7. Exercise 4.35.
8. Exercise 3.27.

Reading:

Chapters 3 and 4, and perhaps skim 5.

Presentations:

Math 827 students will give presentations of recent research papers either in class, on April 1st or 3rd, or in the Operations Research Seminar, on in the Operations Research Seminar on March 26th or 30th or April 2nd. Please sign-up for a date, first-come, first-served.

Please also choose a paper. I would like to finalize the choices by Wednesday, February 17th. The ideal situation would be to choose papers that are relevant to your own research. If you have, or are considering, an advisor, I recommend consulting with them.

A sample of interesting papers will be provided soon.

Note:

The tentative midterm date is now Wednesday, March 4th.