

Sixth Homework Assignment for Math 308

Due: Thursday, April 15th.

All section references are to the text.

Problems to hand in:

Show that the set of optimal solutions to a linear program is a convex set.

Show that the set of solutions to the following equation is not convex:

$$\frac{1}{x_1^2 + 1} + \frac{1}{x_2^2 + 1} \leq 1$$

Chapter 14, exercises 1, 3 and 4.

Some other problems you should try:

Chapter 14, exercises 2 and 8.

Chapter 15, exercise 1.

Remaining reading:

For Tuesday, April 6th, Sections 10.4 and 10.5.

For Thursday, April 8th, Sections 14.1 and 14.2.

For Tuesday, April 13th, Sections 14.3 through 14.6.

For Thursday, April 15th, Sections 15.1 and 15.2.

Exam:

The final exam will cover the entire course. It will take place on **Tuesday, April 27th at 12:00** in room **SUR 5360**. It is a three hour exam.

I will hold office hours before the exam, most likely on Friday and Monday. I hope also to be available on Wednesday afternoon following the exam so that interested students can view their exams. Further details will be announced in class and on the Web site.