

Reading

For Tuesday, February 7th, through Chapter 5, Section 8.

For Friday, February 10th, Chapter 5, Section 9.

For Tuesday, February 21st, Chapter 6 through Section 3.

For Friday, February 24th, to the end of Chapter 6.

Assignment exercises to hand in

Chapter 5, exercises 1, 5, 8, 9 and 15.

Given the linear program:

$$\begin{array}{ll}
 \text{maximize} & -2x_1 - 7x_2 + 7x_3 \\
 \text{subject to} & x_1 - 5x_2 + 5x_3 \leq -3, \\
 (P) & -x_1 + x_2 - x_3 \leq 1, \\
 & -x_2 + x_3 \leq 0 \\
 & x_1, x_2, x_3 \geq 0
 \end{array}$$

Consider the feasible point $x^* = (0, \frac{3}{5}, 0)$. Check that this is a vertex solution to (P) . Write the dual problem (D) to (P) and construct a solution y^* to (D) satisfying complementary slackness with x^* . Conclude that x^* is optimal for (P) .

Some other exercises you should try

Try problems 5.10 and 5.11 for additional simplex practice.

Reminders

The late drop deadline is Wednesday, February 8th.

Enjoy spring break! (February 13th-17th)

The midterm takes place in class on **Tuesday, February 28th**.