Math 339 Homework

(Updated Sep 10 2015)

Starred problems should be worked through and turned in (typically on Wednesdays).

DATE	Homework
Sep 02	3.1: 1, 4*, 5.
	3.2: 1, 2, 4, 6*
Sep 04	3.3: 1, 3, 5, 6*, 7, 8, 9
	3.4: 3*
	3.5: 1, 3, 5* (Note: Skip 3.6 and 3.7)
Sep 07	3.8: 1, 10*
Sep 09	3.9: 1, 5, 7*
	HW for Sections 3.1-3.5 due today.
Sep 11	3.10: 1, 7*
	3.11: 3, 8* (Typo in table 39- $1.00 should be $1.90
	3.12: 2
Sep 14	4.1: 1, 3*
	4.2-3: Handout (Text has no HW for this section)
Sep 16	4.4: 1, 2, 4*, 5
	HW for Sections 3.8-3.12 due today.
Sep 18	4.5: 2, 6*
Sep 21	4.6: 2, 3, 4*
Sep 23	4.7: 2, 8, 9
	Review Problems (p 216): 27
	4.8: 1, 3, 6
	Review Problems: 18
Sep 25	4.11: See next page
Sep 28	Review/Catch up
Sep 30	**Exam 1**

HW for Section 4.11

- (Section 4.11) From the text, 1, 4*, 6.

- Extra Questions (start with what we'll call 4.11.7):

4.11.7. Construct your own system like we did in class- By first constructing an LP with a unique solution, then add constraints that will cause us to have degenerate solutions. Show what happens when you run the Simplex Method. You may use Maple, but you should summarize your work by writing down the key tableaux.

4.11.8. Show that the value of z (in the maximization problem) is strictly increasing (under certain conditions that you should examine).

4.11.9.* In Exercise 3, p. 172, we showed that cycling occurs (See the handout of tableaux entitled "Example 2: Cycling"). Show that, if we change the right hand side of the first constraint from 0 to something like 1/100, we will stop cycling and indeed, find a completely different solution (what is that solution?). As usual, if you use Maple to assist you, summarize your work by writing down the appropriate tableaux[1].

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[1]Some practioners advocate performing this "nudge" by ϵ if you have zeros in the RHS.