Math 514 - Homework 6
Due on Thursday, November 7

You are welcome to talk with other students in the class about problems but should write up solutions on your own. Solutions can be handwritten or typed but need to be legible and submitted via Gradescope by the end of the day on Thursday. You should justify all your answers in order to receive full credit.

Problem 1. Exercise 4.10 from Chapter 4 Schrijver's notes.

Problem 2. Exercise 4.15 from Chapter 4 Schrijver's notes.

Problem 3. Explain why the model in Application 4.4 on pp 73 of Schrijver's notes works.

Problem 4. At some point in the season, the teams in the American League West of Major League Baseball have the following #'s wins and #'s of games left to play. (Some of their remaining games are against teams from other divisions, not listed.) Is it still possible for the Texas Rangers to end with the most wins (or tie for the most wins) of the division at the end of the season? If so, give such a scenario. If not, write a simple explanation for why it's impossible that would be understandable for people not trained in mathematics.

	Team	Wins	Left to Play	vs.	A	B	C	D	E
A	Houston Astros	75	28		*	3	8	7	3
B	Los Angeles Angels	71	28		3	*	2	7	4
C	(Oakland) Athletics	69	27		8	2	*	0	0
D	Seattle Mariners	63	27		7	7	0	*	0
E	Texas Rangers	49	27		3	4	0	0	*