Assignment 5

Due Wednesday 10/17

Exercises: (P = Problems, TE = Theoretical Exercises)

Chapter 4:	P	17*, 19, 21, 22*, 28, 30, 35, 37*, 38*
	TE	5*, 6, 9*

5.A* What is the probability that a bridge hand (13 cards chosen at randomm from a deck of 52) contains (a) exactly 4 spades? (b) at least 4 spades? (c) exactly 4 cards in some suit? (d) at least 4 cards in some suit?

*Problems marked with an asterisk will be collected and graded (note that this includes the extra problem 5.A). Remember to *explain* how you arrive at your answers.

These problems coincide with those of the same numbers in the fifth edition of our text.

Hints and instructions:

P 20(b). You really should answer 20(b) after you have done 20(c). Try to see from 20(a) why the book might have given the advice it did, and then see what 20(c) tells you. Be sure to explain your reasoning.

21(a). You should be able to see which will be larger by thinking about which method of choice favors crowded buses. Again, explain your reasoning.

30. A famous problem! Think carefully about the answers.

TE 5. Let $Y = \alpha X + \beta$. You are to find F_Y in terms of F_X. Start from the definition of $F_Y(y)$.