Due Date: Friday, June 3, 2011

Text Book, Chapter 3-4 Exercises:

Assigned Problems (To be turned in for Credit)

5.1: “A service station has both self-service and full-service…” (page 194)
5.3: “A certain market has both an express checkout line and a…” (page 194)
5.4: “Return to the situation described in Exercise 3…” (page 194)
5.9 (all parts except (e)): ‘Each front tire on a particular type of vehicle…” (page 195)
**Instead of doing part (c) for Exercise 5.9, answer: What is \( P(Y \geq X) \) ?
5.10: “Annie and Alvie have agreed to meet between 5:00PM and …” (page 195)
5.26: “Consider a small ferry that can accommodate cars and buses…” (page 202)
5.50: “The breaking strength of a rivet has a mean value of…” (page 218)
5.54: “Suppose the sediment density (g/cm) of a randomly selected specimen…” (page 218)
   [Hint: (c) You’ve to find \( n \) such that \( P(\bar{X}_n \leq 3.00) \). Write this in terms of \( Z \) and find the appropriate percentile.]

Suggested Problems that do not need to turn in:

5.12: “Two components of a minicomputer have the following joint pdf…” (page 195)
   [Hint: Think in terms of its complementary event]
5.13: “You have two lightbulbs for a particular lamp…” (page 195)
5.22: “An instructor has given a short quiz consisting of two parts. For a…” (page 201)
5.46: “The inside diameter of a randomly selected piston ring…” (page 218)
5.49: “There are 40 students in an elementary statistics class…” (page 218)
   [Hint: Let \( T \) denote the total time (in minutes) for grading 40 papers. Write the required probabilities in terms of \( T \)]
5.53: “Rockwell hardness of pins of a certain type is known to have…” (page 218)

Notes:

- Please submit your Assignment at the beginning of the class. As discussed in the Syllabus, late submissions will not be accepted.
- Remember that you must show all work when answering the questions. If the answer to the question is a calculation, be sure to write down the formula you used or describe how you made the calculation.
- Answers to Questions regarding probabilities should be given in the decimal format.