An Important Note on Homework Assignments: graduate students are to submit their own answers/report; undergraduate students are to work in assigned teams of two-three students (hopefully the same team throughout the semester). Thus, undergraduate students will submit one solution report per team and the homework grade will apply to all students in that group.

<u>Directions</u>: Clearly, concisely and accurately answer the following exercises; type up your solutions or write *very* neatly. As always, email submissions are not accepted – turn in a hard copy of your solutions. Keep 6 decimal places in your calculations.

- 1. [All Students] Read Chapter 3.
- 2. [All Students] Page 97, Exercise 5. As noted, use integration by parts (and review your calculus as needed).
- 3. [All Students] Page 97, Exercise 8, parts (a) and (b) only. Use R to calculate the Normal probabilities for the CLT approximations and also to find the exact values. Include your R commands and output.
- 4. [All Students] Page 98, Exercise 10.
- 5. [Graduate Students only] Pages 97-98, Exercise 9.
- 6. [Graduate Students only] Page 98, Exercise 11.