**LB 220 Homework 3 (due Friday, 01/27/12)**

**Directions.** Please work on the problems below. Your solutions must begin with a clear statement of the problem, followed by a clear, legible solution (or partial progress towards a solution). Please refer to the syllabus for the policy on grading and late homework.

**Collaboration.** I encourage you to discuss the homework problems with your classmates. However, each student must submit his or her own homework solutions.

1. Please solve exercises 36 and 38 in section 11.2

2. Please solve exercise 44 in section 11.2. Your answer will require you to write a few sentences and perhaps to give an example or two which illustrate your answer.

3. Please solve exercises 26 and 30 in section 11.3.

4. Please solve exercise 58 in section 11.3.

5. Please solve exercises 66 and 70 in section 11.3. For additional reading, try googling the Laplace equation or the wave equation. These are very important equations which are fundamental to the study of the physical sciences.