HOMEWORK 12

No need to hand in, but you may send me a scanned copy (by Monday, Dec.12) for problems which you desire to be graded.

TEXTBOOK EXERCISES

11.3: 12, 13;   17, 18;   19, 20, 22;   24, 25.

- Questions 12, 13 are in the category of nonhomogeneous Sturm-Liouville BVPs.
- Questions 17, 18 tell you how to remove nonhomogeneity in the boundary conditions by a transformation.
- Questions 19, 20, 22 are heat equations with nonhomogeneous forcing terms; use the method of orthogonal functions for these questions.
- Questions 24, 25 are based on the principle of superposition, which give an other way to deal with nonhomogeneous forcing terms and nonhomogeneous boundary values. For the last two questions, of course, you may still try to apply the method of orthogonal functions to solve them.