### MATH 241 — HOMEWORK 12.

due on Friday, December 04.

**Textbook:** "Applied Partial Differential Equations with Fourier Series and Boundary Value Problems", fifth edition by Richard Haberman

### **Topics:**

- Chapter 8. Nonhomogeneous Problems
  - 8.2 Heat Flow with Nonhomogeneous Conditions.
  - 8.3 Method of Eigenfunction Expansion, Differentiation of Series
  - 8.4 Method of Eigenfunctions Expansion Using Green's Formula
  - 8.6 Poisson's Equation

# Twelvth Homework Assignment.

## Reading:

• Read Sections 8.2, 8.3, 8.4 and 8.6 from the book.

### Exercises: Problems:

- Page 346: problems: 8.2.4
- Page 352: problems: 8.3.1 (c)(g), 8.3.2, 8.3.3, 8.3.6
- Page 371: problems: 8.6.1 (b)(c), 8.6.3(a), 8.6.6