Homework Assignment #7

Due Friday, May 20, in class or in my office hours.

1. 15.2-8. Expansion of a function in both sine and cosine series.
2. 15.3-1. Completion of a proof in the text.
3. 15.3-2. Summing an infinite series.
4. 15.3-5. Summing an infinite series.
5. 15.3-14. Integrating a Fourier series.
6. 15.3-17. Gibbs phenomenon.
7. 15.4-7. Derivation of the solution of an ODE using Fourier series.
8. 15.4-8. Solving a particular ODE.
9. 15.4-14. General solution of the steady-state damped oscillator.
10. 15.4-16. Damped oscillator with a periodic forcing function.