Math 319 - Differential Equations II
Pre-Reading Assignment # 16
due 10am Thu Nov 13th, via email

Reading You should be able to answer the questions below based on the material covered in class. If you need to have your memory refreshed, you can read the class notes from Tuesday Nov 4th and/or section 11.1, page 646, and section 11.3, Theorem 2, Theorem 4 and pages 662-663.

Questions We are now working through Chapter 11, which is a study of Sturm-Liouville eigenvalue problems.

1. What is a Sturm-Liouville eigenvalue problem? Give a precise definition.

2. What are the solutions of a Sturm-Liouville problem called? What special property do they have?

3. The two eigenfunction expansions we have been using are the sine and cosine expansions. How many different eigenfunction expansions are there? Explain.