

Math 330 Reading Questions

Section 5.1 – 5.3

NAME

Answer the following questions as you read the textbook. This sheet will be collected at the beginning of class on ~~Tuesday~~. Your answers will be graded for completeness.

Thursday

1. In Section 5.2, what examples does the text provide of situations that result in boundary value problems involving differential equations with nonconstant coefficients?

2. What is the **Sturm-Liouville differential equation**?

3. What is a **regular Sturm-Liouville eigenvalue problem**?

4. For any regular Sturm-Liouville problem, what six theorems must hold? (Summarize each briefly. It is not necessary to copy the theorems verbatim from the text.)