

# Math 330 Reading Questions

Section 5.1 – 5.3

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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.*

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.)