Math 330 Reading Questions

Section 4.1 – 4.4

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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. What assumptions does the text make in deriving the wave equation?

2. What is the one-dimensional wave equation?

3. Give two examples of boundary conditions for the wave equation.

4. How many initial conditions are required to determine a particular solution to the wave equation?

5. What product solutions are obtained in Section 4.4 for the wave equation representing a vibrating string with fixed ends?

6. What are *standing waves*?

7. How can the solution to the wave equation be written in terms of *traveling waves*?