Math 330 Reading Questions

Section 2.4

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NAME

Read Section 2.4 in the textbook and answer the following questions. This sheet will be collected at the beginning of class on Thursday. Your responses will be graded for completeness.

1. What is the *one-dimensional wave equation*? What does the constant c represent?

2. What initial conditions are required to uniquely specify a solution to the wave equation?

3. In what sense is the wave equation *bidirectional*?

4. Example 2.16 describes the situation of no initial velocity. Describe how the solution evolves in time in this case.

5. Example 2.17 describes the situation of no initial displacement. Describe how the solution evolves in time in this case.

6. How is the wave equation modified if the vibrating medium is subjected to external forcing?