MATH 241 — HOMEWORK 13.

due on Thursday, December 10.

Textbook: *"Applied Partial Differential Equations with Fourier Series and Boundary Value Problems"* , fifth edition
   by Richard Haberman

Topics:

- Chapter 10. Infinite Domain Problems: Fourier Transform Solutions of Partial Differential Equations
    - 10.2 Heat Equations on an Infinite Domain
    - 10.3 Fourier Transform Pair
    - 10.4 Fourier Transform and the Heat Equation
    - 10.6 Worked Examples Using Transforms
        * 10.6.1 One-Dimensional Wave Equation on an Infinite Interval
        * 10.6.3 Laplace's Equation in a Half-Plane
        * 10.6.5 Heat Equation in a Plane

Thirteenth Homework Assignment.

Reading:

- Read Sections 10.2 to 10.4 and 10.6.1, 10.6.3, 10.6.5 from the book.

Exercises: **Problems:**

- Page 441: problems: 10.2.1 10.2.2
- Page 447: problems: 10.3.1 10.3.2 10.3.7
- Page 461: problems: 10.4.3, 10.4.4, 10.4.7 a) b)
- Page 491: problems: 10.6.3, 10.6.9, 10.6.18