Homework 8

Partial Differential Equations, Spring 2023 David Yang

HW 9 Problems

Chapter 4.1 Problem 5
Solve by adapting the method of 3.1 (also reviewed in 4.1) to find a Fourier series solution for the PDE.

Fourier coefficients for functions defined on the interval $[0, l]$ are given on page 148.

Chapter 3.2 Problem 3(a)

Chapter 3.2 Problem 6

Also answer for this problem: Why does this formula makes sense? In your (very brief) answer, you can relate this formula to a result you may have learned in linear algebra if you studied orthogonal projection and orthogonal decomposition If you did not discuss orthogonal projection in linear algebra, you can say "I did not cover orthogonal projection in linear algebra."