

Homework 9

Due November 17

Before writing your solutions commit yourself to being correct and clear throughout your arguments. In order to receive any credit the grader must be able to follow your arguments.

This is an individual assignment. While you may discuss the problems with your colleagues, you will write up your own individual solutions.

1. (25 points) Problem 2 page 142.
2. (15 points) Problem 4 page 142.
3. (20 points) Problem 6 page 143.
4. (25 points) Problem 3 page 147.
5. (15 points) Use Poisson's formula to find the steady solution to a diffusion problem on a radial domain with 2 sets of boundary conditions of your choice. Plot the solution and the boundary condition function in Maple. Where are the minimum and maximum values of the steady state solution attained? Why?