

Introduction to Partial Differential Equations
MWF 12–12:50pm
CB343
Fall 2005

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and by appointment.

Homework 1. The first item should be completed before the beginning of finals week. The remaining items are due on Friday, 2 September 2005.

1. Attend 4 hour-long presentations in the partial differential equations seminar, colloquium, the CCS seminar series or other lectures with a substantial scientific content. Prepare a one page summary of each lecture. No double-dipping. You should not submit a summary of a lecture that was required for another mathematics class. This will count as 4 homework problems.
2. Consider the initial value problem

$$\begin{cases} y' = y \\ y(0) = 1 \end{cases}$$

Compute the sequence of approximate solutions y_n from the proof the existence theorem for ordinary differential equations.

Identify the limit of y_n .

3. Evans Ch. 1 #3.
4. Evans Ch. 1 #4.

Week 1.

- Wednesday, 24 August. Introduction. Read Chapter 1.
- Friday, 26 August–Monday, 29 August, Existence of solutions to ode's.

August 23, 2005