

MATH 640A Final Exam, Thursday 21 November Fall 2002

Name: _____

Staple this sheet to the front of your exam.

No books, notes, or calculators are allowed.

Dr. S teaches an undergraduate numerical analysis class. This coming quarter she is going to a couple of conferences, and needs someone to teach two class for her. Since you owe her a big favor, you agreed to do it. The topics are:

1. steepest descent (in the context of solving linear systems), and
2. the power method.

She wants you to give her detailed lecture notes so that she knows what you talked about. Please prepare your lecture notes and submit them. Keep in mind:

- Lecture notes are less formal than an essay, but more substantial than an outline. Not everything should be in complete sentences, but key points should be. Mix in formulas and graphs.
- You should have enough detail so that if you get confused about something during the lecture, the answer is in your notes.
- If you are not sure about a formula, write yourself a note to recheck it before class.

(You can choose to do a cooperative-learning group activity if you prefer, but you still need detailed notes.)