Problem Set 0 — Political Science 599

Due 13 September 2005 (Tuesday)

Use this as an excuse to explore some of the cool (used & new) bookstores around town!

1. Find an advanced algebra book that you like from the library (Ann Arbor Public Library or the University library) or a bookstore. These usually have titles that include words like *Advanced Mathematics*, *Pre-calculus*, or *Intermediate Algebra*. Make sure the book covers exponents, order of operations, functions, multiplication of functions, slopes, division of functions, roots of functions, factoring functions, slopes of functions, and solving functions for variables. You may need more than one book to cover that whole range. You will need something in this course and beyond as a basic math reference. I constantly refer to my math and stats books (& internet math resources) for things that I don't know or can't remember. You'll want to develop a set of resources to help you handle the mathematical issues that will arise that are new, or old & forgotten, to you.

What's the name of the book? What's the first example it uses to find the product of two functions? Present the example and work through it. Then say how you'd use division to check the result. And then do that. Imagine that you're teaching this material to the math-week students next year. That's your audience. So be clear.

2. Do exactly the same thing for order of operations. How does the book explain this? What examples does it use? How would you explain this to students?

3. Do exactly the same thing for factoring a constant from a function. How does the book explain this? What examples does it use? How would you explain this to a group of incoming students?