## Math 444

## Geometry for Teachers Assignment #5 (CORRECTED)

**MIDTERM EXAM:** Friday, February 15, in class. It will cover Euclid Book 1 and Venema through Section 5.4.

**Reading:** Venema, Section 5.4; Handout 3 (to be given out in class Friday, 2/8).

**Reading Report:** Due Sunday, 2/10, by midnight.

Written Problems: Due Wednesday, 2/13, in class.

• Venema, p. 91, Exercises 5.3, 5.4, 5.10, 5.11, 5.13.

First Portfolio Assignment: Due Wednesday, 2/20, in class.

Rewrite your proofs of Theorems 3.6.4, 3.6.5, 3.6.6, and 3.6.8 in Venema (you wrote these for Assignment 4), with due attention to writing style as well as mathematical correctness. Be sure to read Handout 3 (*Conventions for Writing Mathematical Proofs*) and follow what it says!

Bring three copies to class. (One will be for peer evaluation, one for Professor Lee, and one for the TA.)

Imagine that Venema has decided that these proofs are too important to relegate to the exercises, and has asked you to write them up as a new section of the textbook, to come just after Section 3.6.

You dont have to pretend to write in Venema's voice, but take some care to make sure that your section fits in with the context of the book. Your audience is students like yourself who have read the book up to this point. Like any good textbook author, youll need to do more than just write down each theorem and its proof; you should try to put the theorems and their proofs into some broader context, and give the reader a reason to be interested.