MA 341 Homework #2
Due Wednesday, September 5, in Class
Bring your solutions to class—there is no need to submit in
Blackboard (but you may if you wish)

1. From our course website, under "Other Resources," select and download "Geometry, Part I" and "Geometry, Part II." These files are large and may take some time to download. We will be looking at parts of these in the future.

2. Get SketchUp installed and running on some computer. From our course website, under "Other Resources," select "Using SketchUp" and read pages 9–11 and practice using the program. Then create your own "still life" in response to "Challenge #1" on page 11. Print it out and include it with your homework submission.

3. From our course website select "Common Core State Standards for Mathematics." Read pages 74–78.

    (a) These pages describe what *all* graduating high school students show know about geometry under newly adopted standards. Type a few sentences to describe some topics you feel are *most* familiar to you, and why.

    (b) Type a few sentences to describe some topics you feel are *least* familiar to you, and why.

4. Problems 1.2.2–1.2.5. *Justify all of your answers!* To address consistency you need to either produce one model, or else you have to explain how the system leads to a contradiction. To address independence, for each particular axiom you need to either produce two models (one in which all axioms hold, and the other in which the particular axiom does not hold but the others do), or else you have to explain how the axiom can be deduced from the other axioms in the system. To address the categoric property you need to either explain why there is essentially only one model, or else produce two essentially different models.