MATH 330 — Spring 2011
ASSIGNMENT 4

Due February 2, 2011

Having finished the first three chapters of *Journey Through Genius*, this is a good point to reflect on what we've discussed so far. Recall that the first three chapters centered around the following "great theorems": Hippocrates' quadrature of a lune, Euclid's proof of the Pythagorean theorem, and Euclid's proof of the infinitude of primes.

4.1. For each of these theorems, state the theorem and provide an outline of the proof given in *Journey Through Genius*. This outline can be in bulleted form or paragraph form, with or without diagrams. Your outlines should capture the fundamental ingredients, ideas, and methods of the proof.

4.2. Choose your favorite proof of the three discussed above. Write one paragraph explaining why this proof is your favorite.

4.3. **COURSE PROJECT TOPIC:** Type a 1-page description of your planned course project. Include two sources you looked at other than *Journey Through Genius*.