

MA 330 HOMEWORK
DUE WEDNESDAY, FEB 4

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.

Problem 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.

NOTE: Problem 1 may be handwritten.

Problem 2: Choose your favorite proof of the three discussed above. Write one paragraph explaining why this proof is your favorite.

NOTE: Problem 2 should be typed.