

MATH 330 — Spring 2011
ASSIGNMENT 7

Due February 23, 2011

Having finished the first six chapters of *Journey Through Genius*, this is a good point to reflect on what we've discussed so far. Recall that chapters 4, 5 and 6 centered around the following "great theorems": Archimedes' determination of circular area, Heron's formula for triangular area, and Cardan's solution of the cubic.

- 7.1. 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.
- 7.2. Choose your favorite *proof* of the three discussed above. Write one paragraph explaining why this proof is your favorite.