Mathematics/Science 381H – Ancient and classical mathematics
Trent University, Fall 2007
Assignment #3
Due on Friday, 19 October, 2007.

1. What are the primary sources of information on the life of either Thales of Miletus or Pythagoras of Samos? How close are these sources to being first-hand accounts, especially concerning his education and his work? *[5]*

  Note: A primary source, in this context, is one such that any prior accounts it may have been based on are lost to us. Observe that it is possible to have multiple primary sources about a given topic. For example, both Plato and Xenophon, who had both known Socrates, wrote works that have survived touching on the life and thought of Socrates.

2. Thales is supposed to have proved that an angle inscribed in a semicircle is a right angle. Another way of putting this is to say that if a triangle ABC is inscribed in a circle and side AC is a diameter of the circle, then the angle at B is a right angle. What might his proof of this result have been? In particular, what basic assumptions about geometry might Thales have made in his proof? *[5]*