Mathematics/Science 381H – Ancient and classical mathematics
Trent University, Fall 2007
Assignment #1
Due on Monday, 24 September, 2007.

1. The Greek historian Herodotus asserted that the Egyptians invented geometry to deal with surveying problems [see p. 4 of the text]. How likely is it that this assertion is correct? Why? *[5]*

2. §1.3 Exercise 6 *[2]*

3. §1.5 Exercise 7(b) *[3]*

4. Determine, as accurately as you can, how high the top of the Bata Library flagpole is above the visitors' parking lot just west of Bata. Give a complete description of the method you employed. Aside from a calculator or computer to do your arithmetic, you may *not* use any other tools that would not have been available in, say, ancient Egypt, nor may you just ask for or look up the answer. Please observe all applicable laws and regulations in the course of your work ... *[10]*

Unified Field Theory

In the beginning there was Aristotle,
And objects at rest tended to remain at rest,
And objects in motion tended to come to rest,
And soon everything was at rest,
And God saw that it was boring.

Then God created Newton,
And objects at rest tended to remain at rest,
But objects in motion tended to remain in motion,
And energy was conserved and momentum was conserved
      and matter was conserved,
And God saw that it was conservative.

Then God created Einstein,
And everything was relative,
And fast things became short,
And straight things became curved,
And the universe was filled with inertial frames,
And God saw that it was relatively general,
      but some of it was especially relative.

Then God created Bohr,
And there was principle,
And the principle was quantum,
And all things were quantified,
But some things were still relative,
And God saw that it was confusing.

Then God was going to create Furgeson,
And Furgeson would have unified,
And he would have fielded a theory,
And all would have been one,
But it was the seventh day,
And God rested,
And objects at rest tend to remain at rest.

Tim Joseph