

## Mathematics 3810H – Ancient and classical mathematics

TRENT UNIVERSITY, Fall 2009

### Assignment #6

*Due on Friday, 11 December, 2009.*

#### Big numbers

For this assignment you should read Archimedes' *The Sand-Reckoner* and §3.2 of the textbook, which is about the two most common ancient Greek number systems.

1. Compare the advantages and disadvantages of the Herodianic and Ionic systems for writing numbers. [8]
2. Just how capable and practical was Archimedes' extension, as described in *The Sand-Reckoner*, of the standard number system in use in his time? [12]

**Bonus:** Who was the Gelon that *The Sand-Reckoner* is addressed to? [1]

#### Numbers

A number will find  
fulfillment enough  
in knowing its mind  
and doing its stuff.

*Piet Hein*

#### The Road To Wisdom

The road to wisdom? Well, it's plain  
and simple to express:

Err  
and err  
and err again  
but less  
and less  
and less.

*Piet Hein*