## MA 350 Dr. G. Stoudt

Second Reading Assignment

## Readings

- Chapter II (The Rise of Theoretical Mathematics in Ancient Greece) Introduction, page 37
- Biography of Proclus, page 47
- Reading 5: From "The Catalog of Geometers"-Proclus
- Biography of Pythagoras of Samos, page 50
- Reading 7: From Book VII of the Elements: Definitions-Euclid
- Reading 8: From Prior Analytics i. 23 (Irrationality of the Square Root of 2)-Aristotle
- Reading 10: From Commentary on Ptolemy's Harmonics (Arithmetic, Geometric and Harmonic Means)-Porphyry
- Reading 12: From Commentary on Euclid i (Sum of the Angles of a Triangle)-Proclus
- Reading 13: From Convivial Questions viii. 2. (Pythagoras' Theorem)-Plutarch
- Reading 14: From On Slips in Greetings 5-Lucian


## Questions for Discussion

Introduction

1. What's the big deal about the "Catalogue of Geometers?"
2. What are the basic contributions of Pythagoras and his followers?
3. What is the "application of areas?"

Reading 7

1. What does it mean to "measure" a number?
2. Give an example of an "even-times even number" and an "even-times odd number."
3. We have different terminology for "prime to one another." What is our terminology?
4. How do the definitions of "plane" and "solid" differ from what you think or from more "modern" definitions?
5. Without using fractions, write out what "proportional" means.

Reading 8

1. This is a big one. Know this!

## Reading 10

1. Look at the definition of the geometric mean. How does this relate to the terms of a geometric series?
2. Look at the definition of the harmonic mean. How does this relate to the terms of a harmonic series?

Reading 12

1. Look up the proof of this theorem in a geometry book. Write down the modern proof and compare the two.

Reading 13

1. What does this mean? In other words, what does application of areas mean here?
