# Math 303 History of Mathematical Concepts

# METU Department of Math Fall 2015 Instructor: S.Finashin

**Syllabus**

1. (Oct. 5-9) Primitive counting and numeration systems.
2. (Oct. 12-16) Archaic mathematics in Egypt and Mesopotamia.

---------- Beginning of presentation

1. (Oct. 19-23) Birth of Mathematics as a deductive science in Greece. Thales and Pythagoras.
2. (Oct. 26-30) Principal philosophical Schools and Mathematics before Plato. Paradoxes of Zeno.
3. (Nov. 2-6) Academy of Plato and mathematicians contributed to *Elements*. Logic of Aristotle.

---------- Midterm I (tentatively, November 11)

1. (Nov. 9-13) Hellenistic Golden Age period. Euclid of Alexandria.
2. (Nov. 16-20) Euclid’s *Elements* and its role in the history of Mathematics.
3. (Nov. 23-27) Archimedes, Eratosthenes.
4. (Nov.30-Dec.4) Apollonius and conics. Other curves in the Greek Geometry.
5. (Dec. 7-11) Trigonometry and astronomy: Hipparchus and Ptolemy.

----------- Midterm II (tentatively, December 16)

1. (Dec. 14-18) Late Hellenistic period: Heron, Diophantus, Pappus and others.
2. (Dec. 21-25) Mathematics in China and India
3. (Dec. 28-31) Mathematics of Islamic Middle East.
4. (Jan. 4-8) Reserve.

------------ Final (tentatively, January 6)