Lecture 1

a) Historical Perspective

Plato: 429-348 BC: ideas are central and are not tested by observations

Aristotle: 387-322 BC: a force is needed to move an object
- heavenly objects are lighter because light objects move upward

Euclid: 300 BC: geometry

Archimedes: 287-212 BC: static, recursive reasoning

In the Western world, not much happened until the 13th century. However, mathematics was developed in India and the Muslim world (Alexandria).

One reason for the lack of progress is the use of Roman numerals

Ptolemy: 100-170 AD: epicycles

Neoplatonism: Platonism is adopted by Christianity
- earth, sun and planets move on spheres