# TOPICS FOR MATHEMATICS 153, SPRING 2005

**TEXT:** D. M. Burton, The History of Mathematics: An Introduction (Fifth Ed.). McGraw-Hill, Boston *etc.*, 2003. ISBN: 0–072–88523–8.

## I. Ancient mathematics

Generalities (Burton, Preface)

Egyptian and Babylonian mathematics (Burton, §§ 1.1–1.3, 2,2–2,5)

Early Greek mathematics (Burton, §§ 3.1–3.4, 10.1)

Euclid and the Alexandrian school (Burton, §§ 4.1–4.5)

Late Greek mathematics (Burton, §§ 5.1–5.4)

## II. The transitional period

Hindu and Islamic contributions (Burton, §§ 5.5, 6,1)

Revival of European mathematical activity (Burton, §§ 6.2–6.4, 7.1)

The Sixteenth Century (Burton, §§ 7.2–7.4, 8.1)

## III. Calculus and subsequent developments

The early Seventeenth Century (Burton, §§ 8.1–8.2)

The emergence of calculus (Burton, §§ 8.3–8.4)

Calculus and the Eighteenth Century (Burton, §§ 9.3, 10.2)

The Nineteenth Century (Burton, §§ 10.3, 11.1–11.4, 12.2)

Modern perspectives on classical material (Burton, §§ 12.3, 13.1–13.3)