MA 123 A1 – Calculus I

Review of Pre-Calculus

a. Quadratic equations
b. Exponentials and logarithms
c. Trigonometry

Limits and derivatives

a. Introduction to limits
b. Continuity
c. Definition and basic properties of derivatives
  a) Applications of derivatives

a. Exponential, log and trigonometric functions
b. Product, quotient and chain rule
c. Implicit and logarithmic differentiation
d. Related rates and optimization
e. Qualitative implications of the derivative, graphing
   L’Hospital’s Rule

Anti-differentiation and integration

a. Anti-derivatives
b. Substitution
c. Growth and decay differential equations
d. Definite integral
e. Fundamental Theorem of Calculus