

# **1 Particle Motion and Integration**

**1.1 Particle Motion**

**1.2 Optimization**

**1.3 Antiderivatives and Indefinite Integrals**

**1.4 Integration using U-Substitution**

**1.5 Integration and Area Under a Curve**

**1.6 Riemann Sums and the Definite Integral**

**1.7 Fundamental Theorem of Calculus**

**1.8 U-Substitution with Definite Integrals**

**1.9 Another Kind of U-Substitution**

**1.10 Fundamental Theorem of Calculus**

**1.11 Average Value of a Continuous Function**