Contents

Downloading Sketchpad Documents	V .
Sketchpad Resources	vi
Chapter 1: Exploring Change	
Visualizing Change: Position	3
Visualizing Change: Velocity	9
Can You Predict the Trace?	15
Catching the Point	21
Plotting Average Rates of Change	28
Going the Distance	34
What Do You Expect?	40
Chapter 2: Exploring Limits	
Continuous or Discontinuous?	49
Delta, Epsilon, and Limits	56
How Close Do You Go?	60
Slope and Limits	67
Area and Limits	75
Chapter 3: Exploring Derivatives	
Taking It Near the Limit	83
Going Off on a Tangent	89
Plotting the Derivative	94
So What's the Function?	100
Derivatives of Exponential Functions	106
Derivatives and Transformations	112
Second Derivatives	119
Newton's Method	126
Chapter 4: Exploring Antiderivatives	
Following Tangent Lines	135
Step to the Antiderivative	142
Plotting the Antiderivative	151
A Field of Slopes	157
Stepping Through the Field	165
Chapter 5: Exploring Integrals	
Building Area	175
The Trapezoid Tool	184
Accumulating Area	189

Area and Integrals	195
The Area Function	202
Plotting the Integral	208
Getting Down to Fundamentals	216