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AP®
Calculus
BC

Course Lesson Plan

On the pages that follow is a week-by-week lesson guide for your student to follow in order to stay on track with Thinkwell's AP Calculus BC coursework.

Under each week's header you'll see **LEARNING & CONTENT OVERVIEW**, **ASSESSMENT PREPARATION**, and **ASSESSMENT** categories. The estimated time required for each activity is noted. Feel free to work as quickly or as slowly through the week's content as is appropriate for your student's learning style. Some topics may take more time, some may take less.

We suggest printing the page for each week and keeping it handy. Please let us know if you have any questions about the content here. Email us at support@thinkwell.com.

WEEK 1 – Unit 1: Limits and Continuity

LEARNING & CONTENT OVERVIEW:

1.1.1 An Introduction to Thinkwell Calculus
Video Lecture length: 2:36 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

1.1.2 The Two Questions of Calculus
Video Lecture length: 9:54 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

1.1.3 How to Do Math
Video Lecture length: 4:47 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

1.1.4 Average Rates of Change
Video Lecture length: 11:03 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

1.1.5 Finding Rate of Change over an Interval
Video Lecture length: 18:23 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

1.1.6 Finding Limits Graphically
Video Lecture length: 14:41 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

1.1.7 The Limit Laws, Part I
Video Lecture length: 2:31 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

WEEK 1 – Unit 1: Limits and Continuity

LEARNING & CONTENT OVERVIEW:

1.1.8 The Limit Laws, Part II
Video Lecture length: 13:55 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

1.1.9 One-Sided Limits
Video Lecture length: 5:18 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

1.1.10 The Squeeze Theorem
Video Lecture length: 12:40 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 2 – Unit 1: Limits and Continuity (continued)

LEARNING & CONTENT OVERVIEW:

1.1.11 Continuity and Discontinuity
Video Lecture length: 3:39 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

1.1.12 Evaluating Limits
Video Lecture length: 19:10 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

1.1.13 Limits and Indeterminate Forms
Video Lecture length: 18:56 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

1.1.14 Two Techniques for Evaluating Limits
Video Lecture length: 17:55 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

1.1.15 An Overview of Limits
Video Lecture length: 14:16 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

1.1.16 Vertical Asymptotes
Video Lecture length: 8:17 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

WEEK 3 – Unit 1: Limits and Continuity (continued)

LEARNING & CONTENT OVERVIEW:

1.1.17 Horizontal Asymptotes and Infinite Limits
Video Lecture length: 17:43 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:

Estimated time needed: 2 hours

❏ Unit 1 Practice Test

ASSESSMENT:

Estimated time needed: 1.5 hours

❏ Unit 1 Test

WEEK 4 – Unit 2: Differentiation: Definition and Basic Derivative Rules

LEARNING & CONTENT OVERVIEW:

2.1.1 Rates of Change, Secants, and Tangents
Video Lecture length: 18:55 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.2 Finding Instantaneous Velocity
Video Lecture length: 19:58 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.3 The Derivative
Video Lecture length: 11:26 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.4 Instantaneous Rate
Video Lecture length: 14:38 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.5 The Slope of a Tangent Line
Video Lecture length: 11:16 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.6 The Equation of a Tangent Line
Video Lecture length: 17:56 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.7 Differentiability
Video Lecture length: 2:35 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.8 The Derivative of the Reciprocal Function
Video Lecture length: 17:56 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 5 – Unit 2: Differentiation: Definition and Basic Derivative Rules (continued)

LEARNING & CONTENT OVERVIEW:

2.1.9 The Derivative of the Square Root Function
Video Lecture length: 15:19 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.10 A Shortcut for Finding Derivatives
Video Lecture length: 14:03 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.11 A Quick Proof of the Power Rule
Video Lecture length: 9:48 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.12 Uses of the Power Rule
Video Lecture length: 19:43 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.13 The Product Rule
Video Lecture length: 20:43 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.14 The Quotient Rule
Video Lecture length: 13:10 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.15 The Derivatives of Trigonometric Functions
Video Lecture length: 13:39 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

2.1.16 Derivatives of Exponential Functions
Video Lecture length: 23:17 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 6 – Unit 2: Differentiation: Definition and Basic Derivative Rules (continued) and Unit 3: Differentiation: Composite, Implicit, and Inverse Functions

LEARNING & CONTENT OVERVIEW:

2.1.17 The Derivative of the Natural Log Function
Video Lecture length: 13:24 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:

Estimated time needed: 2 hours

- ❑ Unit 2 Practice Test

ASSESSMENT:

Estimated time needed: 1.5 hours

- ❑ Unit 2 Test

LEARNING & CONTENT OVERVIEW:

3.1.1 An Introduction to the Chain Rule
Video Lecture length: 17:52 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.2 Using the Chain Rule
Video Lecture length: 12:53 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

WEEK 7 – Unit 3: Differentiation: Composite, Implicit, and Inverse Functions (continued)

LEARNING & CONTENT OVERVIEW:

3.1.3 Combining Computational Techniques
Video Lecture length: 14:23 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.4 Using the Derivative Rules with Transcendental Functions
Video Lecture length: 14:42 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.5 An Introduction to Implicit Differentiation
Video Lecture length: 14:43 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.6 Finding the Derivative Implicitly
Video Lecture length: 12:14 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.7 Differentiating Logarithmic Functions
Video Lecture length: 12:58 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.8 Logarithmic Differentiation
Video Lecture length: 11:36 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

3.1.9 Derivatives of Inverse Functions
Video Lecture length: 12:12 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

WEEK 8 – Unit 3: Differentiation: Composite, Implicit, and Inverse Functions (continued)

LEARNING & CONTENT OVERVIEW:

3.1.10 Derivatives of Inverse Trigonometric Functions
Video Lecture length: 11:30 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:

Estimated time needed: 2 hours

❏ Unit 3 Practice Test

ASSESSMENT:

Estimated time needed: 1.5 hours

❏ Unit 3 Test

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WEEK 9 – Unit 4: Contextual Applications of Differentiation

LEARNING & CONTENT OVERVIEW:

4.1.1 Acceleration and the Derivative
Video Lecture length: 5:44 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.2 More on Instantaneous Rate
Video Lecture length: 18:32 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.3 Solving Word Problems Involving Distance and Velocity
Video Lecture length: 22:06 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.4 The Pebble Problem
Video Lecture length: 15:12 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.5 The Ladder Problem
Video Lecture length: 14:18 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.6 The Baseball Problem
Video Lecture length: 18:21 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.7 The Blimp Problem
Video Lecture length: 12:17 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 10 – Unit 4: Contextual Applications of Differentiation (continued)

LEARNING & CONTENT OVERVIEW:

4.1.8 Math Anxiety
Video Lecture length: 5:32 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.9 Higher-Order Derivatives and Linear Approximation
Video Lecture length: 20:57 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.10 Using the Tangent Line Approximation Formula
Video Lecture length: 24:22 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.11 Indeterminate Forms
Video Lecture length: 8:52 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.12 An Introduction to L'Hôpital's Rule
Video Lecture length: 7:44 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

4.1.13 Basic Uses of L'Hôpital's Rule
Video Lecture length: 10:53 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 11 – Unit 4: Contextual Applications of Differentiation (continued)

LEARNING & CONTENT OVERVIEW:

4.1.14 More Exotic Examples of Indeterminate Forms
Video Lecture length: 12:48 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:

Estimated time needed: 2 hours

❑ Unit 4 Practice Test

ASSESSMENT:

Estimated time needed: 1.5 hours

❑ Unit 4 Test

WEEK 12 – Unit 5: Analytical Applications of Differentiation

LEARNING & CONTENT OVERVIEW:

5.1.1 Three Big Theorems
Video Lecture length: 10:38 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.2 Critical Points
Video Lecture length: 17:41 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.3 Maximum and Minimum
Video Lecture length: 21:59 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.4 Regions Where a Function Increases or Decreases
Video Lecture length: 19:54 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.5 The First Derivative Test
Video Lecture length: 2:45 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.6 Concavity and Inflection Points
Video Lecture length: 13:12 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.7 Using the Second Derivative to Examine Concavity
Video Lecture length: 17:01 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 12 – Unit 5: Analytical Applications of Differentiation

LEARNING & CONTENT OVERVIEW:

5.1.8 Graphs of Polynomial Functions
Video Lecture length: 10:13 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.9 Cusp Points and the Derivative
Video Lecture length: 13:53 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 13 – Unit 5: Analytical Applications of Differentiation (continued)

LEARNING & CONTENT OVERVIEW:

5.1.10 Domain-Restricted Functions and the Derivative
Video Lecture length: 10:20 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

5.1.11 The Second Derivative Test
Video Lecture length: 3:27 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

5.1.12 Graphing Functions with Asymptotes
Video Lecture length: 10:15 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

5.1.13 Functions with Asymptotes and Holes
Video Lecture length: 3:28 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

5.1.14 Functions with Asymptotes and Critical Points
Video Lecture length: 17:20 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

5.1.15 Morale Moment
Video Lecture length: 5:39 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

5.1.16 The Connection Between Slope and Optimization
Video Lecture length: 27:17 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

WEEK 13 – Unit 5: Analytical Applications of Differentiation

LEARNING & CONTENT OVERVIEW:

5.1.17 The Fence Problem
Video Lecture length: 25:03 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

5.1.18 The Box Problem
Video Lecture length: 20:38 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 14 – Unit 5: Analytical Applications of Differentiation (continued)

LEARNING & CONTENT OVERVIEW:

5.1.19 The Can Problem
Video Lecture length: 20:47 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

5.1.20 The Wire-Cutting Problem
Video Lecture length: 24:40 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

5.1.21 Using Implicit Differentiation
Video Lecture length: 22:24 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

5.1.22 Applying Implicit Differentiation
Video Lecture length: 22:53 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:
Estimated time needed: 2 hours

❏ Unit 5 Practice Test

ASSESSMENT:
Estimated time needed: 1.5 hours

❏ Unit 5 Test

WEEK 15 – Unit 6: Integration and Accumulation of Change

LEARNING & CONTENT OVERVIEW:

6.1.1 Antidifferentiation
Video Lecture length: 13:59 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.2 Antiderivatives of Powers of *x*
Video Lecture length: 17:56 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.3 Antiderivatives of Trigonometric and Exponential Functions
Video Lecture length: 10:24 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.4 Undoing the Chain Rule
Video Lecture length: 8:30 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.5 Integrating Polynomials by Substitution
Video Lecture length: 15:24 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 16 – Unit 6: Integration and Accumulation of Change (continued)

LEARNING & CONTENT OVERVIEW:

6.1.6 Integrating Composite Trigonometric Functions by Substitution
Video Lecture length: 12:44 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.7 Integrating Composite Exponential and Rational Functions by Substitution
Video Lecture length: 13:30 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.8 More Integrating Trigonometric Functions by Substitution
Video Lecture length: 7:19 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.9 Choosing Effective Function Decompositions
Video Lecture length: 11:42 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.10 Approximating Areas of Plane Regions
Video Lecture length: 9:39 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 17 – Unit 6: Integration and Accumulation of Change (continued)

LEARNING & CONTENT OVERVIEW:

6.1.11 Areas, Riemann Sums, and Definite Integrals
Video Lecture length: 13:40 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.12 The Fundamental Theorem of Calculus, Part I
Video Lecture length: 11:46 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.13 The Fundamental Theorem of Calculus, Part II
Video Lecture length: 16:28 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.14 Illustrating the Fundamental Theorem of Calculus
Video Lecture length: 13:55 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.15 Evaluating Definite Integrals
Video Lecture length: 12:53 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.16 Long Division
Video Lecture length: 9:34 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.17 More Calculus of Inverse Trigonometric Functions
Video Lecture length: 9:31 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.18 Deriving the Trapezoidal Rule
Video Lecture length: 12:36 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.19 An Example of the Trapezoidal Rule
Video Lecture length: 7:15 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

WEEK 18 – Unit 6: Integration and Accumulation of Change (continued)

LEARNING & CONTENT OVERVIEW:

6.1.20 An Introduction to Integrals with Powers of Sine and Cosine
Video Lecture length: 11:15 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.21 Integrals with Powers of Sine and Cosine
Video Lecture length: 12:09 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.22 Integrals with Even and Odd Powers of Sine and Cosine
Video Lecture length: 11:00 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.23 Integrals of Other Trigonometric Functions
Video Lecture length: 9:01 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.24 Integrals with Odd Powers of Tangent and Any Power of Secant
Video Lecture length: 10:26 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.25 Integrals with Even Powers of Secant and Any Power of Tangent
Video Lecture length: 7:50 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

6.1.26 An Introduction to Integration by Parts
Video Lecture length: 12:25 minutes

- ❏ Instruction: 1 Video Lecture
- ❏ Instruction: Notes
- ❏ Practice: Thinkwell Exercise

WEEK 18 – Unit 6: Integration and Accumulation of Change

LEARNING & CONTENT OVERVIEW:

6.1.27 Applying Integration by Parts to the Natural Log Function
Video Lecture length: 8:11 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.28 Inspirational Examples of Integration by Parts
Video Lecture length: 9:18 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

6.1.29 Repeated Application of Integration by Parts
Video Lecture length: 9:32 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

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WEEK 19 – Unit 6: Integration and Accumulation of Change (continued)

LEARNING & CONTENT OVERVIEW:

6.1.30 Algebraic Manipulation and Integration by Parts
Video Lecture length: 13:37 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

6.1.31 Finding Partial Fraction Decompositions
Video Lecture length: 13:07 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

6.1.32 Partial Fractions
Video Lecture length: 10:58 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

6.1.33 The First Type of Improper Integral
Video Lecture length: 9:42 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

6.1.34 The Second Type of Improper Integral
Video Lecture length: 7:26 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

6.1.35 Infinite Limits of Integration, Convergence, and Divergence
Video Lecture length: 11:50 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:
Estimated time needed: 2 hours

☐ Unit 6 Practice Test

ASSESSMENT:
Estimated time needed: 1.5 hours

☐ Unit 6 Test

WEEK 20 – Unit 7: Differential Equations

LEARNING & CONTENT OVERVIEW:

7.1.1 An Introduction to Differential Equations
Video Lecture length: 10:57 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

7.1.2 Direction Fields
Video Lecture length: 5:49 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

7.1.3 Euler's Method for Solving Differential Equations Numerically
Video Lecture length: 19:47 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

7.1.4 Solving Separable Differential Equations
Video Lecture length: 8:44 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

7.1.5 Finding a Particular Solution
Video Lecture length: 6:25 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 21 – Unit 7: Differential Equations (continued)

LEARNING & CONTENT OVERVIEW:

7.1.6 Exponential Growth
Video Lecture length: 12:20 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

7.1.7 Radioactive Decay
Video Lecture length: 8:05 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

7.1.8 Logistic Growth
Video Lecture length: 29:15 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:
Estimated time needed: 2 hours

- ❑ Unit 7 Practice Test

ASSESSMENT:
Estimated time needed: 1.5 hours

- ❑ Unit 7 Test

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WEEK 22 – Unit 8: Applications of Integration

LEARNING & CONTENT OVERVIEW:

8.1.1 Finding the Average Value of a Function
Video Lecture length: 8:18 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.2 Antiderivatives and Motion
Video Lecture length: 19:51 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.3 Gravity and Vertical Motion
Video Lecture length: 18:22 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.4 Solving Vertical Motion Problems
Video Lecture length: 11:53 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.5 The Area between Two Curves
Video Lecture length: 9:04 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

WEEK 23 – Unit 8: Applications of Integration (continued)

LEARNING & CONTENT OVERVIEW:

8.1.6 Limits of Integration and Area
Video Lecture length: 15:16 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.7 Finding Areas by Integrating with Respect to *y*: Part One
Video Lecture length: 8:15 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.8 Finding Areas by Integrating with Respect to *y*: Part Two
Video Lecture length: 18:50 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.9 Area, Integration by Substitution, and Trigonometry
Video Lecture length: 11:43 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.10 Common Mistakes to Avoid When Finding Areas
Video Lecture length: 15:36 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.11 Regions Bound by Several Curves
Video Lecture length: 11:13 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.12 Finding Volumes Using Cross-Sectional Slices
Video Lecture length: 9:58 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

8.1.13 An Example of Finding Cross-Sectional Volumes
Video Lecture length: 12:02 minutes

❏ Instruction: 1 Video Lecture
❏ Instruction: Notes
❏ Practice: Thinkwell Exercise

WEEK 24 – Unit 8: Applications of Integration (continued)

LEARNING & CONTENT OVERVIEW:

8.1.14 Solids of Revolution
Video Lecture length: 11:50 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

8.1.15 The Disk Method along the *y*-Axis
Video Lecture length: 11:43 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

8.1.16 A Transcendental Example of the Disk Method
Video Lecture length: 9:39 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

8.1.17 The Washer Method across the *x*-Axis
Video Lecture length: 13:11 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

8.1.18 The Washer Method across the *y*-Axis
Video Lecture length: 13:11 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

8.1.19 An Introduction to Arc Length
Video Lecture length: 11:33 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

8.1.20 Finding Arc Lengths of Curves Given by Functions
Video Lecture length: 13:44 minutes

☐ Instruction: 1 Video Lecture
☐ Instruction: Notes
☐ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:
Estimated time needed: 2 hours

☐ Unit 8 Practice Test

ASSESSMENT:
Estimated time needed: 1.5 hours

☐ Unit 8 Test

WEEK 25 – Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions

LEARNING & CONTENT OVERVIEW:

9.1.1 An Introduction to Parametric Equations
Video Lecture length: 11:47 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.2 The Cycloid
Video Lecture length: 12:30 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.3 Eliminating Parameters
Video Lecture length: 8:04 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.4 Derivatives of Parametric Equations
Video Lecture length: 12:43 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.5 Graphing the Elliptic Curve
Video Lecture length: 12:28 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.6 The Arc Length of a Parameterized Curve
Video Lecture length: 10:04 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.7 Finding Arc Lengths of Curves Given by Parametric Equations
Video Lecture length: 15:04 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 26 – Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions (continued)

LEARNING & CONTENT OVERVIEW:

9.1.8 Introduction to Vector Functions
Video Lecture length: 13:47 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.9 Derivatives of Vector Functions
Video Lecture length: 19:54 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.10 Vector Functions: Velocity and Acceleration
Video Lecture length: 22:08 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.11 The Polar Coordinate System
Video Lecture length: 12:31 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.12 Converting between Polar and Cartesian Forms
Video Lecture length: 9:36 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.13 Spirals and Circles
Video Lecture length: 9:23 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.14 Graphing Some Special Polar Functions
Video Lecture length: 8:22 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

9.1.15 Calculus and the Rose Curve
Video Lecture length: 17:59 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 27 – Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions (continued)

LEARNING & CONTENT OVERVIEW:

9.1.16 Finding the Slopes of Tangent Lines in Polar Form
Video Lecture length: 7:34 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

9.1.17 Heading toward the Area of a Polar Region
Video Lecture length: 12:58 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

9.1.18 Finding the Area of a Polar Region: Part One
Video Lecture length: 8:49 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

9.1.19 Finding the Area of a Polar Region: Part Two
Video Lecture length: 9:17 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

9.1.20 The Area of a Region Bounded by Two Polar Curves: Part One
Video Lecture length: 10:46 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

9.1.21 The Area of a Region Bounded by Two Polar Curves: Part Two
Video Lecture length: 9:34 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:
Estimated time needed: 2 hours

- ❑ Unit 9 Practice Test

ASSESSMENT:
Estimated time needed: 1.5 hours

- ❑ Unit 9 Test

WEEK 28 – Unit 10: Infinite Sequences and Series

LEARNING & CONTENT OVERVIEW:

10.1.1 An Introduction to Infinite Series
Video Lecture length: 11:28 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

10.1.2 The Summation of Infinite Series
Video Lecture length: 11:21 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

10.1.3 Geometric Series
Video Lecture length: 13:21 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

10.1.4 Properties of Convergent Series
Video Lecture length: 7:23 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

10.1.5 The nth-Term Test for Divergence
Video Lecture length: 8:58 minutes

- ❑ Instruction: 1 Video Lecture
- ❑ Instruction: Notes
- ❑ Practice: Thinkwell Exercise

WEEK 29 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.6 An Introduction to the Integral Test
Video Lecture length: 12:45 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.7 Examples of the Integral Test
Video Lecture length: 8:08 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.8 Using the Integral Test
Video Lecture length: 13:58 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.9 Defining *p*-Series
Video Lecture length: 9:36 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 30 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.10 An Introduction to the Direct Comparison Test
Video Lecture length: 14:03 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.11 Using the Direct Comparison Test
Video Lecture length: 10:10 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.12 An Introduction to the Limit Comparison Test
Video Lecture length: 10:49 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.13 Using the Limit Comparison Test
Video Lecture length: 11:09 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.14 Inverting the Series in the Limit Comparison Test
Video Lecture length: 12:55 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 31 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.15 Alternating Series
Video Lecture length: 9:36 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.16 The Alternating Series Test
Video Lecture length: 7:20 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.17 Estimating the Sum of an Alternating Series
Video Lecture length: 9:36 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.18 Absolute and Conditional Convergence
Video Lecture length: 12:13 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.19 The Ratio Test
Video Lecture length: 13:16 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.20 Examples of the Ratio Test
Video Lecture length: 10:38 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.21 Polynomial Approximation of Elementary Functions
Video Lecture length: 13:14 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 32 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.22 Higher-Degree Approximations
Video Lecture length: 14:17 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.23 Taylor Polynomials
Video Lecture length: 14:32 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.24 Maclaurin Polynomials
Video Lecture length: 9:06 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.25 The Remainder of a Taylor Polynomial
Video Lecture length: 5:48 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.26 Approximating the Value of a Function
Video Lecture length: 6:10 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.27 Taylor Series
Video Lecture length: 4:45 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.28 Examples of the Taylor and Maclaurin Series
Video Lecture length: 9:43 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 33 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.29 New Taylor Series
Video Lecture length: 7:40 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.30 The Convergence of Taylor Series
Video Lecture length: 14:40 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.31 The Definition of Power Series
Video Lecture length: 6:01 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.32 The Interval and Radius of Convergence
Video Lecture length: 10:28 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 34 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.33 Finding the Interval and Radius of Convergence: Part One
Video Lecture length: 14:02 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.34 Finding the Interval and Radius of Convergence: Part Two
Video Lecture length: 11:19 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.35 Finding the Interval and Radius of Convergence: Part Three
Video Lecture length: 10:00 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.36 Differentiation and Integration of Power Series
Video Lecture length: 7:59 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

WEEK 35 – Unit 10: Infinite Sequences and Series (continued)

LEARNING & CONTENT OVERVIEW:

10.1.37 Finding Power Series Representations by Differentiation
Video Lecture length: 4:03 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.38 Finding Power Series Representations by Integration
Video Lecture length: 5:39 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

10.1.39 Integrating Functions Using Power Series
Video Lecture length: 5:39 minutes

❑ Instruction: 1 Video Lecture
❑ Instruction: Notes
❑ Practice: Thinkwell Exercise

ASSESSMENT PREPARATION:

Estimated time needed: 2 hours

❑ Unit 10 Practice Test

ASSESSMENT:

Estimated time needed: 1.5 hours

❑ Unit 10 Test

WEEK 36 – Practice AP Exams

Estimated time needed: 105 minutes ❑ #1 Practice AP BC Exam - Part 1 (no calculator)

Estimated time needed: 75 minutes ❑ #1 Practice AP BC Exam - Part 2 (calculator)

Estimated time needed: 105 minutes ❑ #2 Practice AP BC Exam - Part 1 (no calculator)

Estimated time needed: 75 minutes ❑ #2 Practice AP BC Exam - Part 2 (calculator)