Teacher Contact Information

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Helpful Resources

- Derek Pertzborn 's YouTube Channel
- Mr. Kahle's Resource Doc

AP Calculus Calendar 2024-2025

Wednesday, May 7th - Day 73

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. Continue Practice Test #2
	2. Homework
	   a. REVIEW AP TEST #2
	     i. MCQ No Calc
	     ii. FRQ No Calc
	class periods till AP test: 2

Monday, May 5th - Day 72

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. Continue Practice Test #2
	2. Homework
	   a. REVIEW AP TEST #2
	     i. MCQ No Calc
	     ii. FRQ No Calc
	   b. Derivative Formulas/ Rules
	     i. Trig, exponential, and logs
	     ii. Derivative Rules
	     iii. Practice Problems w/ solutions
	class periods till AP test: 3

Thursday, May 1st - Day 71

Learning Targets

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Today's Classwork	1. Start Practice Test #2
	2. Homework
	   a. Pg. 21
	   b. Pg. 31

Due: Next Class	c. Pg. 61 **class periods till AP test: 4**

Tuesday, April 29th - Day 70

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. Go over Practice Test #1
	2. Homework
	    a. Pg. 15
	    b. Pg. 43
	    c. Pg. 63
	
	class periods till AP test: 5

Friday, April 25th - Day 69

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. SLOT 1 - Derivatives of Trig Functions
	2. Practice Test #1 - Day 3
	3. Homework
	    a. Pg. 13
	    b. Pg. 39
	    c. Pg. 51
	
	class periods till AP test: 6

Wednesday, April 23rdt - Day 68

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. Practice Test #1 - Day 2
	2. Homework
	    a. Pg. 11
	    b. Pg. 35
	    c. Pg. 65
	
	class periods till AP test: 7

Monday, April 21st - Day 67

Learning Targets

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Today's Classwork	1. Practice Test #1 **class periods till AP test: 8**

Due: Next Class	

Wednesday, April 16th - Day 66	

Today's Classwork *Due: Next Class*	1. **Unit 6 Quiz Wednesday April 16th** 2. Homework Check

Monday, April 14th - Day 65	

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. Unit 6 Review Lecture Monday April 14th - Katie and Matt
	2. Loop Activity
	3. Homework
	    a. Pg. 7
	    b. Pg. 59
	    c. Pg. 67
	    d. Pg. 75
	4. Homework Check Wednesday April 16th
	Unit 6 Quiz Wednesday April 16th

Thursday, April 10th - Day 64	

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. SLOT 2 - Derivatives of Inverse Trig Functions
	2. Notes
	    a. Cross Sections
	3. Homework:
	    a. Pg. 5
	    b. Pg. 53
	    c. Pg. 69
	Unit 6 Quiz Wednesday April 16th
	Unit 6 Review Lecture Monday April 14th - Katie and Matt

Tuesday, April 8th - Day 63	

Learning Targets

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Today's Classwork	1. SLOT 1 - Derivatives of Inverse Trig Functions 2. Notes a. Integration with Respect to y

Due: Next Class	b. [Integration of Shells](#)
	3. Homework:
	      a. Pg. 37
	      b. Pg. 55
	      c. Pg. 71

Friday, April 4th - Day 62

Learning Targets

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Today's Classwork *Due: Next Class*	1. [SLOT 1 - Derivatives of Inverse Trig Functions](#) 2. [Disk Method](#) 3. [Washer Method](#) 4. Homework: a. Catch up on Review Packet

Wednesday, April 2nd - Day 61

Learning Targets

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Today's Classwork
 	
Due: Next Class
	1. SLOT 4 - Integration of Exponential Functions
	2. [Area Between Curves](#)
	      a. [Calculator](#)
	3. Homework: Review Packet
	      a. Pg. 3
	      b. Pg. 19
	      c. Pg. 25
	      d. Pg. 33

Monday, March 31st - Day 60

Learning Targets

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Today's Classwork
 	
Due: Next Class
	4. SLOT 3 - Integration of Exponential Functions
	5. Reviewed Chapter 5 Test
	6. Homework: Review Packet
	      a. Pg. 1
	      b. Pg. 9
	      c. Pg. 17

Thursday, March 20th - Day 59

Learning Targets

- I can differentiate exponential functions. (SLOT 6)
- I can approximate values on a curve using a tangent line. (Linear Approximation)
- I can differentiate natural logs.
- I can write and graph inverse functions.
- I can determine if a function has an inverse.

Today's Classwork *Due: Next Class*	7. **Test: Chapter 5: Transcendental Functions** 8. Happy Spring Break!

Tuesday, March 18th - Day 58

Learning Targets

- I can differentiate exponential functions. (SLOT 6)
- I can approximate values on a curve using a tangent line. (Linear Approximation)
- I can differentiate natural logs.
- I can write and graph inverse functions.
- I can determine if a function has an inverse.

Today's Classwork *Due: Next Class*	1. Unit 5 Packet ***Thurs. March. 20th→ Test: Chapter 5: Transcendental Functions***

Friday, March 14th - Day 57

Learning Targets

- I can differentiate exponential functions. (SLOT 6)
- I can approximate values on a curve using a tangent line. (Linear Approximation)
- I can differentiate natural logs.
- I can write and graph inverse functions.
- I can determine if a function has an inverse.

Today's Classwork
 	
Due: Next Class
	2. Notes: Differential Equations - Growth and Decay Part 1
	3. Notes: Differential Equations - Growth and Decay Part 2
	4. Notes: Separable Differential Equations
	5. Unit 5 Packet
	    a. Logarithms (#6-#9 Left Side only)
	    b. Inverse Functions (#3-#4 Left Side only)
	    c. Exponential Functions
	        i. #1-#2 & #6 Left Side only
	        ii. #9A

Wednesday, March 12th - Day 56

Learning Targets

- I can differentiate exponential functions. (SLOT 6)
- I can approximate values on a curve using a tangent line. (Linear Approximation)
- I can differentiate natural logs.
- I can write and graph inverse functions.
- I can determine if a function has an inverse.

Today's Classwork	1. SLOT 2 - Derivatives of Exponential Functions 2. Notes: Inverse Functions - Finish 3. Notes: Derivatives of Inverse Functions 4. Unit 5 Packet

Due: Next Class	a. Linear Approximation #1 and #3 b. Logarithms (#1-#5 Left Side only) c. Inverse Functions (#1A , #1C, #2A) d. L'Hôpital's Rule (A-H) 5. Math Meet Help

Friday, March 7th - Day 55

Learning Targets

- I can differentiate exponential functions. (SLOT 6)
- I can approximate values on a curve using a tangent line. (Linear Approximation)
- I can differentiate natural logs.
- I can write and graph inverse functions.
- I can determine if a function has an inverse.

Today's Classwork
 	
Due: Next Class
	1. SLOT 1 - Derivatives of Exponential Functions
	2. Notes: Inverse Functions
	3. Classwork:
	    ○ Pg 349 #1, 2, 5, 9-12, 25, 30, 47, 49, 85, 100
	4. Homework:
	    ○ Pg 331 #21-35 odd
	    ○ Pg 240 #3
	    ○ Pg 331 #13, 15, 20, 44, 85, 88, 93, 95
	5. Review:
	    ○ Pg 401 #39, 42, 43, 49, 52, 53, 56
	6. Math Meet Help

Wednesday, March 5th - Day 54

Learning Targets

- I can approximate values on a curve using a tangent line. (Linear Approximation)
- I can differentiate natural logs.

Today's Classwork
 	
Due: Next Class
	1. Notes: Linear Approximation
	2. Notes: Natural Logs and Differentiation
	3. Classwork:
	    ○ Pg 240 #1, 2
	    ○ Pg 331 #7-10, 11, 14, 43, 77, 83, 91, 94
	4. Review:
	    ○ Pg 401 #3, 6, 8, 9, 17, 19, 20
	5. Trig Integration Quiz

Monday, March 3rd - Day 53

Learning Targets

- I can estimate the area under a curve using Riemann Sums and Trapezoidal Sum Rule.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.
- I can evaluate functions using the fundamental theorem of calculus.
- I can create slope fields for functions.

Today's Classwork *Due: Next*	1. **Test: Chapter 4: Integration Corrections**

Class	

| **Thursday, February 27th - Day 52** ||

Learning Targets

- I can estimate the area under a curve using Riemann Sums and Trapezoidal Sum Rule.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.
- I can evaluate functions using the fundamental theorem of calculus.
- I can create slope fields for functions.

Today's Classwork *Due: Next Class*	2. **Test: Chapter 4: Integration** 3. Work Time

| **Tuesday, February 25th - Day 51** ||

Learning Targets

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Today's Classwork
 	
Due: Next Class
	Review Day #2
	
	1. SLOT 8 - Separation of Variables Integration
	2. Nick and Olivia Review Lecture
	3. Unit 4 Key - Mistakes corrected on…
	    ○ problems #2 and #3 of FTC part 1
	    ○ #1 Definite Integrals Basic
	4. Slope Fields Key
	
	Thurs. Feb. 27th→ Test: Chapter 4: Integration

| **Friday, February 20th - Day 50** ||

Learning Targets

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Today's Classwork
 	
Due: Next Class
	Review Day #1
	
	1. Jeopardy
	2. Unit 4 Key - Mistakes corrected on…
	    a. problems #2 and #3 of FTC part 1
	    b. #1 Definite Integrals Basic
	3. Slope Fields Key
	Thurs. Feb. 27th→ Test: Chapter 4: Integration

| **Wednesday, February 19th - Day 49** ||

Learning Targets

- I can differentiate exponential functions. (SLOT 3)
- I can estimate the area under a curve using Riemann Sums and Trapezoidal Sum Rule.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.

	● I can evaluate functions using the fundamental theorem of calculus. ● I can create slope fields for functions.

Today's Classwork
 	
Due: Next Class
	5. SLOT 7 - Separation of Variables Integration
	6. Notes: Applications of Displacement/Accumulation
	7. Homework
	    ○ APPB Pg 117 #1068, 1072, 1073 (Use Calculator)
	    ○ APPB: pg.121 #1090(video), 1098, 1099
	8. Review
	    ○ APPB:
	        ■ Pg 115 #1051
	        ■ Pg 124: 1109, 1110, 1113-1115
	        ■ Pg 128 #11, 12, 13, 15
	        ■ Pg 134 #2 (video), 3
	Thurs. Feb. 27th→ Test: Chapter 4: Integration

Monday, February 17th - Day 48

Learning Targets

● I can differentiate exponential functions. (SLOT 3)
● I can estimate the area under a curve using Riemann Sums and Trapezoidal Sum Rule.
● I can find an exact area under a curve using definite integrals.
● I can evaluate integrals by using the properties of integration.
● I can evaluate functions using the fundamental theorem of calculus.
● I can create slope fields for functions.

Today's Classwork
 	
Due: Next Class
	1. SLOT 6- Integration of Exponential Functions
	2. Notes: Distance vs. Displacement
	3. Classwork:
	    ○ Pg 296: 99, 103, 104 (Use your calculator on all of these)
	    ○ APPB Pg 108 #955
	4. Homework:
	    ○ Slope Field Worksheet
	        ■ Slope Field Examples
	5. Review
	    ○ APPB Pg 121 #1091, 1093, 1094, 1097
	    ○ APPB pg.128 #1, 3, 5, 6, 8, 9, 10

Thursday, February 13th - Day 47

Learning Targets

● I can estimate the area under a curve using Riemann Sums and Trapezoidal Sum Rule.
● I can find an exact area under a curve using definite integrals.
● I can evaluate integrals by using the properties of integration.
● I can evaluate functions using the fundamental theorem of calculus.
● I can create slope fields for functions.

Today's Classwork
 	
Due: Next Class
	1. SLOT 5 - Integration of Exponential Functions
	2. Notes: Integration on the Calculator
	3. Notes: Slope Fields
	4. Classwork:
	    ○ Slope Field Worksheet
	        ■ Slope Field Examples
	5. Homework:
	    ○ pg 293 #46, 49, 55, 94
	    ○ APPB Pg 112 #1021, 1022, 1025

6. Review:
   ○ APPB Pg 123 #1101

Tuesday, February 11th - Day 46

Learning Targets

- I can integrate logarithms. (SLOT 1)
- I can integrate functions.
- I can estimate the area under a curve using Riemann Sums and Trapezoidal Sum Rule.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.
- I can evaluate functions using the fundamental theorem of calculus.

Today's Classwork
 	
Due: Next Class
	1. SLOT 4- Differentiation- Exponential Functions (pg.39)
	2. Mind Map – Definite Integrals
	3. Notes: The Mean Value Theorem and Average of a Function for Definite Integrals
	4. Classwork:
	   ○ Pg 293 #45, 48, 50, 51, 56, 59
	5. Homework:
	   ○ Pg 293 #7, 11, 19, 22, 31, 33, 74
	   ○ APPB: Pg 111-112 #1014-1018, 1028
	6. Review:
	   ○ APPB: Pg 134 #1

Thursday, February 6th - Day 45

Learning Targets

- I can differentiate logarithms. (SLOT 3)
- I can integrate functions.
- I can estimate the area under a curve using Riemann Sums.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.

Today's Classwork
 	
Due: Next Class
	1. SLOT 3- Differentiation- Exponential Functions (pg.39)
	2. Notes: Change of Variable and Definite Integrals
	3. Notes: Change of Variable and Definite Integrals - Part 2
	4. Notes: The Fundamental Theorem of Calculus
	5. Classwork:
	   ○ Pg 306 # 72, 83
	   ○ Pg 295: #73, 75, 85, 87, 90
	6. Homework:
	   ○ Pg 293 #5, 9, 15, 21, 27, 35, 66
	   ○ Pg 316 #3, 6, 53

Tuesday, February 4th - Day 44

Learning Targets

- I can differentiate logarithms. (SLOT 2)
- I can integrate functions.
- I can estimate the area under a curve using Riemann Sums.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.

	1. SLOT 2- Integration- Logarithms (pg.38) 2. Notes: Trapezoidal Sum

Today's Classwork
 	
Due: Next Class
	3. Classwork:
	    ○ Pg 316 #1, 4, 7, 9, 52
	    ○ APPB Pg 117 #1057
	4. Homework:
	    ○ APPB: Pg 106 #923
	    ○ Pg 278 #33, 35, 38, 42, 43

Friday, January 31st - Day 43

Learning Targets

- I can integrate functions.
- I can estimate the area under a curve using Riemann Sums.
- I can find an exact area under a curve using definite integrals.
- I can evaluate integrals by using the properties of integration.

Today's Classwork
 	
Due: Next Class
	1. WarmUp - L'Hôpital's rule
	2. Notes: Properties of Integrals
	3. Classwork:
	    ○ Pg 278 #41, 44, 49, 52, 65, 66
	    ○ APPB Pg 107 #940-949
	4. Homework:
	    ○ Pg 278 #17, 19, 25, 31, 47d-f, 48 a-c, 55, 57, 69
	    ○ APPB: Pg 106 #922
	5. Exit Ticket - Rectangular Approximation Method

Wednesday, January 29th - Day 42

Learning Targets

- I can integrate functions.
- I can find particular solutions.
- I can integrate to find position, velocity, and acceleration equations.
- I can estimate the position moved by using RAM.

Today's Classwork
 	
Due: Next Class
	1. SLOT 1- Integration- Logarithms (pg.37)
	2. Notes: Riemann Sums and Definite Integrals (Part 1)
	3. Notes: Riemann Sums and Definite Integrals (Part 2)
	4. Classwork:
	    ○ Pg 278 #15, 18, 27, 47 a-c, 69, 78
	5. Homework:
	    ○ (Kennedy) Pg 271 #10, 19(Number cut off at bottom. It's the "Distance from Velocity Data")
	6. Review:
	    ○ Pg 255 #23, 27, 28, 32
	    ○ Pg 306 #21, 25, 49, 58

Monday, January 27th - Day 41

Learning Targets

- I can evaluate logarithms. (SLOT 12)
- I can integrate functions.
- I can find particular solutions.
- I can integrate to find position, velocity, and acceleration equations.
- I can estimate the position moved by using RAM.

	1. SLOT 3- Differentiation- Logarithms (pg.36)

Today's Classwork
 	
Due: Next Class
	2. Notes: Antiderivatives - Position, Velocity, Acceleration
	3. Notes: Rectangular Approximation Method
	4. Classwork:
	    ○ Pg 258 #81, 83, 84, 87
	    ○ (Kennedy) Pg 271 #9(Do LRAM, RRAM, and MRAM), 17 (Video #17)
	5. Homework:
	    ○ Pg 256 #59, 62
	    ○ APPB:
	        ■ Pg 103 #870-873
	        ■ Pg 104 # 881, 893, 896

Thursday, January 23rd - Day 40

Learning Targets

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Today's Classwork *Due: Next Class*	1. SLOT 1- Differentiation- Logarithms (pg.34) 2. SLOT 2- Differentiation- Logarithms (pg.35) 3. **Semester Exam - Go Over**

Tuesday, January 16th - Day 39

Learning Targets

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Today's Classwork *Due: Next Class*	1. **Semester Exam**

Tuesday, January 14th - Day 38

Learning Targets

● I can evaluate logarithms. (SLOT 13)
● I can integrate functions.
● I can find particular solutions.

Today's Classwork
 	
Due: Next Class
	1. SLOT 13-Logarithms (pg.33)
	2. Semester Exam Review
	    ○ Review
	    ○ Key
	3. ***** SEMESTER EXAM January 16th ******

Friday, January 10th - Day 37

Learning Targets

● I can evaluate logarithms. (SLOT 12)
● I can integrate functions.

	● I can find particular solutions.

Today's Classwork
 	
Due: Next Class
	1. [SLOT 12-Logarithms (pg.32)](#)
	2. [Notes: Techniques of Integration (Part 1)](#)
	3. [Notes: Techniques of Integration (Part 2)](#)
	4. [Notes: Initial Conditions and Particular Solutions](#)
	5. Classwork:**(WILL NOT BE COLLECTING)**
	   a. APPB: Pg 103 #857-866, 880, 883, 885, 888
	   b. Pg 256 #57, 60, 61, 70, 92
	6. Semester Exam Review
	   a. [Review](#)
	   b. [Key](#)
	7. * SEMESTER EXAM January 16th ******

Wednesday, January 8th - Day 36

Learning Targets

- I can evaluate logarithms. (SLOT 11)
- I can find critical numbers, extrema, and inflection points of functions.
- I can determine when a function is increasing or decreasing and concave up or concave down.
- I can use all of the above information to graph an accurate sketch of a function and its derivative.
- I can graph f'(x) from f(x).
- I can graph f(x) from f'(x).
- I can optimize problems.

Today's Classwork *Due: Next Class*	1. [SLOT 11-Logarithms (pg.31)](#) 2. **FINISH Test→ Applications of Derivatives** 3. Unit 3 Test Corrections

Monday, January 6th - Day 35

Learning Targets

- I can evaluate logarithms. (SLOT 10)
- I can find critical numbers, extrema, and inflection points of functions.
- I can determine when a function is increasing or decreasing and concave up or concave down.
- I can use all of the above information to graph an accurate sketch of a function and its derivative.
- I can graph f'(x) from f(x).
- I can graph f(x) from f'(x).
- I can optimize problems.

Today's Classwork *Due: Next Class*	4. [SLOT 10 -Logarithms (pg.30)](#) 5. **Test→ Applications of Derivatives**

Thursday, January 2nd - Day 34

Learning Targets

- I can evaluate logarithms. (SLOT 9)
- I can find critical numbers, extrema, and inflection points of functions.
- I can determine when a function is increasing or decreasing and concave up or concave down.
- I can use all of the above information to graph an accurate sketch of a function and its derivative.

	● I can graph f'(x) from f(x). ● I can graph f(x) from f'(x). ● I can optimize problems.

Today's Classwork
 	
Due: Next Class
	1. SLOT 9-Logarithms (pg.30)
	2. Review
	   ○ APPB:
	     ■ Pg 83 #788, 789
	     ■ Pg 85 #798
	     ■ Pg 86 #812, 813
	     ■ Pg 99 #2, 3
	3. Work Day/Study Day
	   ○ Missing Assignments?
	   ○ Quiz Corrections/Retakes?
	   ○ Test Corrections/Retakes?
	*Coming up: Test→ Applications of Derivatives→ Thursday, December 7th

Thursday, December 18th - Day 33

Learning Targets

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Today's Classwork *Due: Next Class*	1. Derivatives Bee ***Coming up: Test→ Applications of Derivatives→ Monday, January 6th**

Tuesday, December 17th - Day 32

Learning Targets

● I can evaluate logarithms. (SLOT 10)
● I can integrate functions.
● I can find particular solutions.

Today's Classwork
 	
Due: Next Class
	1. SLOT 10 -Logarithms (pg.30)
	2. Notes: Techniques of Integration (Part 1)
	3. Notes: Techniques of Integration (Part 2)
	4. Notes: Initial Conditions and Particular Solutions
	5. Classwork:
	   ○ APPB: Pg 103 #857-866, 880, 883, 885, 888
	   ○ Pg 256 #57, 60, 61, 70, 92

Friday, December 13th - Day 31

Learning Targets

● I can evaluate logarithms. (SLOT 9)
● I can find critical numbers, extrema, and inflection points of functions.
● I can determine when a function is increasing or decreasing and concave up or concave down.
● I can use all of the above information to graph an accurate sketch of a function and its derivative.
● I can graph f'(x) from f(x).
● I can graph f(x) from f'(x).

Today's Classwork *Due: Next Class*	1. [SLOT 9 - Logarithms (pg.30)](#) 2. **Quiz→ Derivatives and the Shapes of Curves**

Wednesday, December 11th - Day 30

Learning Targets

- I can evaluate logarithms. (SLOT 8)
- I can find critical numbers, extrema, and inflection points of functions.
- I can determine when a function is increasing or decreasing and concave up or concave down.
- I can use all of the above information to graph an accurate sketch of a function and its derivative.
- I can graph f'(x) from f(x).
- I can graph f(x) from f'(x).
- I can optimize problems.

Today's Classwork
 	
Due: Next Class
	1. SLOT 8-Logarithms (pg.29)
	2. [Computer Lab: Graphing f from f'](#)
	3. Homework
	   ○ Pg 224 #24, 25
	   ○ [Worksheet: Graphing f from f'](#)
	4. Review
	   ○ APPB: pg.78-88 [#744](#), [750](#), 771, 790, [817](#)
	   ○ APPB Pg 93 #1-5, 8-14
	   ○ APPB Pg 99 #1
	Next Class: Quiz→ Derivatives and the Shapes of Curves*

Monday, December 9th - Day 29

Learning Targets

- I can evaluate logarithms. (SLOT 7)
- I can find critical numbers, extrema, and inflection points of functions.
- I can determine when a function is increasing or decreasing and concave up or concave down.
- I can use all of the above information to graph an accurate sketch of a function and its derivative.
- I can graph f'(x) from f(x).
- I can optimize problems.

Today's Classwork
 	
Due: Next Class
	1. [SLOT 7-Logarithms (pg.29)](#)
	2. [Computer Lab: Graphing f' from f](#)
	3. Videos: (Patrickjmt.com)
	   ○ [Optimization Problem #2](#)
	   ○ [Optimization Problem #3](#)
	4. Classwork
	   ○ APPB: pg.78 #747, 749, 752, 754
	5. Review:
	   ○ APPB Pg 86 #810, 811
	   ○ APPB Pg 89 #820-828

Thursday, December 5th - Day 28

Learning Targets

- I can evaluate logarithms. (SLOT 6)
- I can find extrema of functions.
- I can find critical numbers.
- I can determine when a function is increasing or decreasing.

	● I can determine when a function is concave up or concave down. ● I can find points of inflection. ● I can use all of the above information to graph an accurate sketch of a function and its derivative.

Today's Classwork
 	
Due: Next Class
	1. [SLOT 6- Logarithms (pg.28)](#)
	2. [Notes: Graphing f' from f](#)
	3. Notes Video (Patrickjmt):
	    ○ [Optimization Problem #1](#)
	4. Classwork:
	    ○ Pg 215 #1-4
	    ○ APPB Pg 71-73 #719-722
	5. Homework:
	    ○ APPB: pg.74 #730, 731

Tuesday, December 3rd - Day 27

Learning Targets

- I can evaluate logarithms. (SLOT 5)
- I can find extrema of functions.
- I can find critical numbers.
- I can determine when a function is increasing or decreasing.
- I can determine when a function is concave up or concave down.
- I can find points of inflection.
- I can use all of the above information to graph an accurate sketch of a function.

Today's Classwork
 	
Due: Next Class
	1. [SLOT 5 Logarithms (p.28)](#)
	2. [Notes: Optimization: Area and Volume Part 1](#)
	3. [Notes: Optimization: Area and Volume Part 2](#)
	4. Classwork:
	    ○ Pg 224 #21, 23
	5. Homework:
	    ○ APPB: pg. 74 #724-726
	    ○ Pg 186 #52 (Calculator)

Tuesday, November 26 - Day 26

Learning Targets

- I can evaluate logarithms. (SLOT 4)
- I can simplify/factor expressions to solve different types of algebraic problems without a calculator

Today's Classwork
 	
Due: Next Class
	1. [SLOT 4 - Logarithms (p.27)](#)
	2. Simplifying Expressions Game
	    a. Problems
	    b. Solutions
	3. Corrections/ Retakes

Friday, November 22th - Day 25

Learning Targets

- I can evaluate logarithms. (SLOT 3)
- I can find extrema of functions.
- I can find critical numbers.
- I can determine when a function is increasing or decreasing.
- I can determine when a function is concave up or concave down.

	● I can find points of inflection. ● I can use all of the above information to graph an accurate sketch of a function.

Today's Classwork
 	
Due: Next Class
	1. SLOT 3 - Logarithms (pg. 27)
	2. Notes: Derivatives and Their Graphs
	3. Notes: Finding Critical Values, Max, Min From Graphing Calculator
	4. Classwork:
	    ○ Pg 215 #23, 27, 37, 38
	    ○ Pg 170 # 47 (Calculator)
	    ○ Pg 186 #51 (Calculator)

Wednesday, November 20th

Learning Targets

Today's Classwork *Due: Next Class*	1. 3 Problems

Monday, November 18th - Day 24

Learning Targets

● I can evaluate logarithms. (SLOT 1 & 2)
● I can find extrema of functions.
● I can find critical numbers.
● I can determine when a function is increasing or decreasing.
● I can determine when a function is concave up or concave down.
● I can find points of inflection.

Today's Classwork
 	
Due: Next Class
	1. SLOT 1- Logarithms (pg.26)
	2. SLOT 2- Logarithms (pg.26)
	3. Notes: The Shape of a Graph
	4. ~~Classwork:~~
	    ○ ~~Pg. 215 #5,19,21 (Has a corner),47,67~~
	5. ~~Homework:~~
	    ○ ~~Pg. 195 #1, 4, 7, 11, 18, 23, 29, 41, 52, 59, 67~~
	    ○ ~~APPB: Pg 70 #717~~

Thursday, November 14th - Day 23

Learning Targets

● I can evaluate logarithms. (SLOT 2)
● I can find extrema of functions.
● I can find critical numbers.
● I can determine when a function is increasing or decreasing.
● I can determine when a function is concave up or concave down.
● I can find points of inflection.

Today's Classwork	1. SLOT 8 - Integration 2. Notes: Concavity and the Second Derivative Test Part 1 3. Notes: Concavity and the Second Derivative Test Part 2 4. Classwork:

Due: Next Class	○ Pg 195 #2, 3, 5, 8, 17, 21, 27, 30, 39, 43, 51, 57(Video #57), 58, 65
	5. Homework:
	  ○ Pg 186 #6, 7, 9, 11, 21, 36, 49, 53, 63, 64, 74, 75, 78
	  ○ APPB: Pg 70 #709

Tuesday, November 12th - Day 22

Learning Targets

- I can evaluate logarithms. (SLOT 1)
- I can find extrema of functions.
- I can determine if a function is continuous.
- I can determine if a function is differentiable.
- I can use the mean value theorem to find c-values
- I can determine when a function is increasing or decreasing.

Today's Classwork
 	
Due: Next Class
	1. SLOT 7 - Integration
	2. Notes: Increasing and Decreasing Functions and the First Derivative
	3. Classwork:
	  ○ Pg 186 #5, 17, 24, 35, 43, 44, 51, 71, 73
	  ○ Pg 186 #46 (Video for #46)
	4. Homework:
	  ○ Pg 176 #13, 21, 27, 43, 48

Friday, November 8th - Day 21

Learning Targets

- I can find an integral of a function (SLOT 8)
- I can find extrema of functions.
- I can determine if a function is continuous.
- I can determine if a function is differentiable.
- I can use the mean value theorem to find c-values

Today's Classwork
 	
Due: Next Class
	1. SLOT 8 – Integration (pg.22)
	2. Notes: The Mean Value Theorem Part 1
	3. Notes: The Mean Value Theorem Part 2
	4. Notes: Rolle's Theorem
	5. Classwork:
	  ○ Pg 176 #11, 19, 25, 29, 41, 46, 55
	  ○ APPB: Pg 69 #700
	6. Homework:
	  ○ Pg 169 #12, 23, 35, 43, 59, 65

Wednesday, November 4th - Day 20

Learning Targets

- I can differentiate functions.

Today's Classwork *Due: Next Class*	1. Survey 2. **Test: Differentiation**

Monday, November 4th - Day 19

Today's Classwork *Due: Next Class*	1. SLOT 7- Integration (pg.21) 2. Notes: Using Zeroes to Solve Equations on the Calculator 3. Notes: Extrema 4. Classwork: ○ ~~Pg 169 #2, 5, 7, 13, 15, 19, 22, 27, 33, 39, 41, 57, 67~~ 5. Solutions from Day 17

Wednesday, October 30th - Day 18

Learning Targets

- I can find an integral of a function (SLOT 6)
- I can find a higher-order derivative.
- I can use related rates to solve problems.

Today's Classwork
 	
Due: Next Class
	1. Warm-Up
	    ○ Point on graph
	    ○ Sphere with constant dr/dt
	    ○ Sphere with constant dV/dt
	2. SLOT 6- Integration (pg.20)
	3. Related Rates: Multi-step Problems
	4. Classwork:
	    ○ Related Rates: Multi-step Problems Worksheet (#1 together)
	5. Review: → Solutions
	    ○ APPB: Pg.65: 1, 2
	    ○ APPB: Pg.49: 551
	    ○ APPB: Pg.55: 655
	Coming up: → Wednesday, November 6th - Test: Differentiation

Monday, October 28th - Day 17

Learning Targets

- I can find an integral of a function (SLOT 5)
- I can determine if a function is differentiable.
- I can use derivatives to find rates of change. (Position/Velocity/Acceleration)
- I can find a higher-order derivative.
- I can use related rates to solve problems.

Today's Classwork
 	
Due: Next Class
	1. SLOT 4- Integration (pg.18)
	2. Related Rates: Trigonometry
	3. Related Rates Involving Trigonometry (Video-PatrickJMT)
	
	4. Classwork:
	    ○ Pg.154: #25c, 42, 45
	    ○ APPB: Pg.49: 553
	5. Homework:
	    ○ APPB: Pg.49: 549, 554
	    ○ APPB: Pg.59: 1,10,11,12,15
	6. Review:
	    ○ APPB: Pg.54: 654
	    ○ APPB: Pg.55: 656

	○ APPB: Pg.52: 639-642 ***Coming up: → Wednesday, November 6th - Test: Differentiation***

Thursday, October 24th - Day 16	

Learning Targets

- I can find an integral of a function (SLOT 4)
- I can determine if a function is differentiable.
- I can use derivatives to find rates of change. (Position/Velocity/Acceleration)
- I can find a higher-order derivative.
- I can use related rates to solve problems.

Today's Classwork
 	
Due: Next Class
	1. Related Rates—Cones (Video-patrickJMT)
	2. Classwork:
	   ○ Pg.154: 17, 21, 25b
	   ○ APPB: Pg.48/49: 542, 552
	3. Homework:
	   ○ APPB: Pg.49: 548
	4. Review:
	   ○ APPB: Pg.54: 652, 653
	   ○ APPB: Pg.59: 2, 4, 5, 6, 8, 9
	5. Quiz → Implicit Differentiation

Tuesday, October 22nd - Day 15	

Learning Targets

- I can find an integral of a function (SLOT 3)
- I can determine if a function is differentiable.
- I can use derivatives to find rates of change. (Position/Velocity/Acceleration)
- I can find a higher-order derivative.

Today's Classwork
 	
Due: Next Class
	1. SLOT 3- Integration (pg.17)
	2. Notes: Related Rates: Pythagorean Theorem
	3. Notes: Related Rates: Area and Volume
	4. Classwork:
	   ○ Pg. 129: 117,136
	   ○ Pg. 154: #11, 25a
	   ○ APPB: Pg.48: 543
	5. Homework:
	   ○ APPB: pg.52: 645, 646, 649
	Next Class: Quiz → Implicit Differentiation

Friday, October 18th - Day 14.5	

Learning Targets

- I can find an integral of a function (SLOT 2)
- I can use implicit differentiation to find the derivative of a function.
- I can determine if a function is differentiable.
- I can use derivatives to find rates of change. (Position/Velocity)

Today's Classwork	1. SLOT 2- Integration (pg.16)
	2. Notes: Rectilinear Motion
	   ○ Part 1
	   ○ Part 2
	3. Finish Differentiation Quiz

Due: Next Class	4. Classwork:
	   ○ Pg. 115: 97, 99
	   ○ Pg.128: #93, 97
	5. Homework:
	   ○ Pg.127: 73, 76, 105-108, 131-135
	   ○ Pg.138: #91, 95
	   ○ APPB: Pg.47- The Return of Geometry- 522-536

Wednesday, October 16th - Day 14.0

Learning Targets

- I can find an integral of a function (SLOT 1)
- I can use implicit differentiation to find the derivative of a function.
- I can determine if a function is differentiable.
- I can use derivatives to find rates of change. (Position/Velocity)
- I can find a higher-order derivative.

Today's Classwork *Due: Next Class*	1. SLOT 1- Integration (pg.16) 2. Notes: Higher Order Derivatives 3. AP Problem- Implicit Differentiation 4. Classwork/Homework a. Start Day 14.5 HW

Monday, October 14th - Day 13

Learning Targets

- I can find a derivative of a function (SLOT 11(2))
- I can use the rules of differentiation to find a derivative.
- I can use implicit differentiation to find the derivative of a function.
- I can determine if a function is differentiable.

Today's Classwork
 	
Due: Next Class
	1. SLOT 11(2)- Derivatives (pg.15)
	2. Notes: Differentiability and Piecewise Functions
	3. Classwork:
	   ○ Pg.106: 83, 86, 87, 93, 96
	   ○ APPB: Pg.38: 383, 385
	4. Homework:
	   ○ Pg. 146: 3, 4, 8, 11, 25, 27, 31, 54, 61
	   ○ APPB: Pg.46: #521
	5. **Quiz→ Rules of Differentiation***

Thursday, October 10th - Day 12

Learning Targets

- I can find a derivative of a function (SLOT 11)
- I can use the rules of differentiation to find a derivative.
- I can find a tangent line to a function through a specific point.
- I can find a normal line to a function through a specific point.

	1. SLOT 11- Derivatives (pg.14) 2. Notes: Implicit Differentiation 3. Classwork:

Today's Classwork
 	
Due: Next Class
	○ Pg.147: 5, 9, 13, 23, 24, 53, 57, 59
	      ○ APPB: pg.46: 517, 518
	  4. <u>Homework:</u>
	      ○ APPB: pg.45: #492, 493, 498
	Next Class: Quiz→ Rules of Differentiation

Tuesday, October 8th - Day 11

Learning Targets

- I can find a derivative of a function (SLOT 10)
- I can use the rules of differentiation to find a derivative.
- I can use the definition of a derivative to find a derivative.
- I can find a tangent line to a function through a specific point.
- I can find a normal line to a function through a specific point.

Today's Classwork
 	
Due: Next Class
	1. <u>SLOT 10- Derivatives (pg.13)</u>
	2. <u>Notes: Derivative and the Tangent Line Problem</u>
	3. <u>Notes: The Derivative and the Calculator</u>
	4. <u>Classwork:</u>
	      ○ APPB: pg.39: 387, 389
	      ○ APPB: pg.45: 491, 494, 497
	5. <u>Homework:</u>
	      ○ Pg.104: 13, 22
	      ○ APPB: pg.40: 408,410
	6. Review:
	      ○ Pg.158: 4, 23, 29, 41, 43, 45, 47, 73, 74, 81

Friday, October 4th - Day 10

Learning Targets

- I can find a derivative of a function (SLOT 8 and 9)
- I can use the rules of differentiation to find a derivative.

Today's Classwork
 	
Due: Next Class
	1. <u>SLOT 8 – Derivatives (pg.11)</u>
	2. <u>SLOT 9- Derivatives (pg.12)</u>
	3. <u>Notes: Definition of Derivative</u>
	4. <u>Classwork</u>
	      ○ APPB: Pg. 43: 451-471 (Only in Class!! If you don't finish DON'T FININISH)
	      ○ Pg. 104: 14, 17, 21
	5. <u>Review</u>
	      ○ APPB: Pg. 38: 366, 368, 369, 370, 374

Wednesday, October 2nd - Day 9

Learning Targets

- I can find a derivative of a function (SLOT 5, 6 & 7)

Today's Classwork *Due: Next Class*	1. <u>SLOT 5- Derivatives (pg.8)</u> 2. <u>SLOT 6- Derivatives (pg.9)</u> 3. <u>SLOT 7 – Derivatives (pg.10)</u> 4. <u>Notes: Average Rate of Change</u> 5. <u>Notes: Instantaneous Rate of Change</u> 6. <u>Classwork:</u> ○ Pg.117: 94,95

7. [Homework](#)
   - Pg.117: 93, 96
8. Review
   - [APPB](#): Pg. 43: 451-467 odd (Linked in Google Classroom as well)
   - Pg. 137 #23, 25,27

Monday, September 30th - Day 8

Learning Targets

- I can calculate limits.
- I can estimate an average rate of change.

Today's Classwork

Due: Next Class

1. Unit Review Lecture - Tessa and Kaden
2. **Test: Limits**

Wednesday, September 25th - Day 7

Learning Targets

- I can calculate limits.

Today's Classwork

Due: Next Class

1. **Quizzes→ Limits (NO CALCULATORS)**
2. Unit 1 Review on AP Classroom

Next Class→ Limits Unit Test

Monday, September 23rd - Day 6

Learning Targets

- I can find a derivative of a function (SLOT 4)
- I can calculate limits.

Today's Classwork

Due: Next Class

1. [SLOT 4 – Derivatives (pg.7)](#)
2. Review: Horizontal Asymptotes - no video
3. [Notes: Overview of Limits](#) - no video (notes attached)
4. ~~Quizzes → Limits (NO CALCULATORS)~~
5. Classwork
6. Homework
   - ~~IVT: Pg. 80: 85, 92, 93~~
   - ~~Infinite Limits: Pg. 88: 6, 7, 14, 19, 23, 28, 30, 31, 34, 40, 47, 53~~

Wednesday, September 16th - Day 5

Learning Targets

	● I can calculate limits.
Today's Classwork *Due: Next Class*	1. Notes: Intermediate Value Theorem ○ [Video](#) ○ Notes 2. [Notes: Limits at Infinity](#) 3. [Classwork](#) ○ IVT: CW: Pg. 81: 91, 94 ○ L@∞: CW: Pg. 205: 1-3, 13, 15, 19, 25, 27, 30, 37, 39, 45, 59, 62, 73 4. [Homework](#) ○ Pg. 78: 2, 6, 10, 11, 14, 19, 26, 27, 30, 35, 38, 41, 44, 50, 52, 55, 64, 67, 78, 80 ***Next Class: Quizzes → Limits***

Monday, September 16th - Day 4

Learning Targets

- I can find a derivative of a function (SLOT 3)
- I can calculate limits.

Today's Classwork *Due: Next Class*	1. SLOT 3 - Derivatives (pg.6) ○ [Video](#) 2. Finish Notes: One Sided Limits and Continuity ○ [Video](#) ○ Notes 3. Notes: Infinite Limits ○ [Video](#) ○ Notes 4. Classwork ○ Infinite Limits: Pg. 88: 1, 4, 5, 8, 13, 15, 16, 22, 25, 29, 33, 37, 42, 43, 50 5. Homework ○ N/a 6. Review ○ Pg. 91: 11, 16, 18, 20 ○ Pg. 68: 70 **Coming up: Quiz→ Limits Monday, September 23rd (NO CALCULATOR)**

Thursday, September 12th - Day 3

Learning Targets

- I can factor least powers. (SLOT 4)
- I can find a derivative of a function (SLOT 2)
- I can calculate limits.

Today's Classwork *Due: Next Class*	1. SLOT 4 - Factoring Least Powers (pg.4) ○ [Video](#) ○ [Solutions](#) 2. SLOT 2 – Derivatives (pg.5) ○ [Video](#) ○ Solutions 3. Notes: One Sided Limits and Continuity ○ [Video](#) ○ Notes **4. Unit Cirlce Quiz** 5. Classwork ○ Pg. 78: #3, 4, 5, 8, 9, 12, 13, 17, 20, 23, 28, 29, 36, 46, 49, 51, 63, 77, 78

6. Homework
   - Pg. 67 #28, 38, 39, 56, 59, 66, 67, 77
7. Review
   - Pg. 91 #9, 10, 17, 19, 22 (Look up Factoring Sum of Cubes), 24

Coming up: Quiz→ Limits Monday, September 23rd (NO CALCULATOR)

Tuesday, September 10th - Day 2

Learning Targets

- I can factor least powers. (SLOT 3)
- I can find a derivative of a function (SLOT 1)
- I can calculate limits.

Today's Classwork
 	
Due: Next Class
	1. SLOT 1 – Derivatives (pg.5)
	     ○ [Video](#)
	     ○ [Blank](#)
	2. SLOT 3 - Factoring Least Powers (pg. 3)
	     ○ [Video](#)
	3. [Notes: Properties of Limits](#)
	     ○ Notes
	4. [Notes: Piecewise Functions](#)
	     ○ Notes
	5. [Notes: Limits – Special Cases](#)
	     ○ Notes
	6. Notes From Patrickjmt
	     ○ [Calculating a Limit by Multiplying by the Conjugate](#)
	     ○ [Calculating a Limit involving Absolute Value](#)
	7. Classwork - no video
	     ○ Limits by Common Denominator/Expanding - Pg. 67:60, 79
	     ○ Properties of Limits - Pg. 67: 37, 40
	     ○ Limits - Special Cases - Pg. 67: 65, 68, 69, 74
	     ○ Calculating a Limit by Multiplying by the Conjugate - Pg. 67: 55, 58
	8. Homework - no video
	     ○ Pg. 54 #16, 17, 19, 22, 72, 74
	     ○ Pg. 67 #7, 14, 31, 38, 46, 47, 52

Friday, September 6th - Day 1

Learning Targets

- I can factor least powers. (SLOT 2)
- I can calculate limits.

Today's Classwork
 	
Due: Next Class
	1. SLOT 2 - Least Powers Factoring (pg.2)
	     a. [Video](#)
	2. Notes: Introduction to Limits
	     a. [Video](#)
	     b. Notes
	3. Notes From Patrickjmt
	     ○ [Calculating a Limit by Getting a Common Denominator](#)
	     ○ [Calculating a Limit by Expanding and Simplifying](#)
	4. Classwork - no video
	     a. Pg. 54: 9, 15, 18, 20, 21, 24, 31, 64, 71
	     b. Pg. 67: 5, 9, 16, 23, 27, 32, 36, 45, 48, 51
	     c. Solutions: [Here](#)
	5. Discussion Post on Google Classroom

Wednesday, September 4th - Day 0
__Learning Targets__ ● I can factor least powers. (SLOT 1) ● I can use a unit circle to find the exact value of trigonometric functions.

1. Parent Letter
2. SLOT 1 - Least Powers Factoring (pg.1)
    a. Blank
    b. Video
3. Unit Circle
    a. Video Notes
    b. Blank Template
    c. Kahle Video
4. Unit Circle Game
5. Unit Circle Practice #11-30 -no video
    a. Blank
    b. Solutions
Unit Circle Quiz Thursday 9/12