AP Calculus Notebook 2017-2018

Section 1: Class Info

- Grade Scale
- Syllabus

Section 2: Reference

- Library of Functions
- TI Calculator Info
- Unit Circle
- How to graph a piecewise function on TI Calculator
- How to justify IVT
- Trig Formulas
- Unit circle with Inverse info
- Derivative Rule Summary
- Log and Exponent Properties
- Geometry Formulas
- Rolles/MVT Format
- Function Analysis
- Average value vs Fave
- How to Justify in AP Calculus AB
- Four Important Theorems

Section 3: Limits

- Section 2.1: Prerequisite
- Section 2.2: Limits (graphical/numerical approach)
    Piecewise function practice
- Section 2.3/2.5: Limits Algebraically
- Section 2.4: Continuity
- Section 2.8: Intermediate Value Thm
- Section 2.7: Limits at ∞
- Section 2.6: Trigonometry and Limits
- Multiple Choice Questions on Limits
- Review #2
- Our Chapter One Review Packet
- Day 2 of Our Chapter One Review

Section 4 Derivatives Pt 1

- Section 3.1 Tangents, Velocities and other Rates of change (the derivative)
- Section 3.2 Differentiation Rules
- Section 3.3 Product and Quotient Rules
- Section 3.6 Derivative of Trig Functions
- Section 3.7 The Chain Rule
- Section 3.10 Implicit Differentiation

- Section 3.5 Higher Derivatives
- My Big Review
- FRQ for Ch 3
- My Ch 2 Practice Problems
- Derivative Practice #2
- Derivative Practice #2.5

Section 5 Derivatives Continued
- Section 3.8 Inverses with inverse practice worksheet
- Section 3.8 Trig Inverses
- Section 3.9 Exponential, Log Derivatives and Logarithmic Differentiation
- Calculating Derivatives on the Calculator Packet
- Ch 3 Take-Home Test
- Ch 3 Differentiation : Preparing for the AP Exam packet

Section 6: Uses for the Derivative: Important Theorems and Curve Sketching
- Section 4.1 Linearization
- Section 4.2 Extreme Values
- Section 4.2/4.3 Rolles Thm/MVT
- Section 4.3/4.4 Intervals of Inc/Dec/local min/max/concavity/poi
- Section 4.5 LHopital's Rule
- Section 4.6 Curve Sketching
- Graphs of Derivatives worksheet
- Applications of the Derivative #1
- Applications of the Derivative #2

Section 7: Related Rates and Optimization
- Section 3.11 Related Rates
- Section 4.7 Optimization
- Related Rates and Optimization hw packets

Section 8: AntiDerivatives/Integral
- Section 4.9 Antiderivatives
- Section 5.1 Approximating/Computing Area
- Section 5.2 Official Definition of Integral/Geometric Approach
- Section 5.3 FTC Pt 1
- Section 5.4 FTC Pt 2
- Section 5.5
- Section 5.6 U-Sub/Indefinite Integrals
- Section 5.6 Usub with Trig
- Section 5.6 Pt2 Usub with definite integrals and Logs/Exponential
- Section 5.7 Integrals of Inverse Trig Functions
- Multiple Choice Review Packet
- The FTC worksheet

Section 9: Applications of Integrals
- Section 6.1 Area between curves
- Section 6.2 FAVE
- Section 6.2 Cross sectional Volumes/Volumes by Slicing
- Section 6.3 Disk Method
- Section 6.3 Washer Method

Section 10: Differential Equations/Slopes Fields/ Growth Decay and Trapezoid Method
- Section 9.1 Differential Equations
- Section 9.3 Slope Fields
- Section 9.4 Growth Decay Pt1/Pt 2/Pt 3
- Section 7.8 Trapezoid Method

Section 11: Weekly Problem Sets
- Week 1-6 with Corrections stapled to the front

Section 12: FRQ's Complete and corrected.
      Slope Fields
      Area/Volume
      Curve Sketching
      Motion
      Accumulation
      2008 (Q2-6), 2009(Q1,3-5), 2010(Q1,2,4,5,6), 2013(Q2-6), 2015 FRQ(Q1-6), 2017 FRQ(Q1-6)- in order

Section 13: Cumulative Reviews

Section 14: AP Review
- Motion Unit (worksheets 1-5)
- *Ap Calculus Final Review Sheet (When you see this, you Do this chart)*
- *Limits Review Worksheet*
- *Derivative Review Worksheet*
- *Integral Review Worksheet (Everything)*
- *My AP Calculus AB Quick Skills Drill #2*
- *Pesky Tan Lines*
- *Problems to Ponder*
- *My Big Integral Review*
- *Limits, Continuity and L'Hospital's Rule Worksheet*