

# AP Calculus AB: Topics and Assignments

Weeks 1 and 2

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Monday	7/31	NO SCHOOL!
Tuesday	8/1	NO SCHOOL!
Wednesday	8/2	Start of School ★ HW: None!
Thursday	8/3	Class Policy and Expectations Lesson 4: Trigonometry Review ★ Parent Letter and Student Info ★ HW: Problem Set 4 #3-6, 11-13 ★ HW: Problem Set 5 #7-9, 13, 16
Friday	8/4	Lesson 6: Functions Review ★ HW: Problem Set 6 #2, 7-15 ★ HW: Problem Set 7 #3, 11-14, 17, 18

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Monday	8/7	Lesson 9: Logarithms Review ★ HW: Problem Set 9 #3, 7, 10, 11, 14, 16, 23 ★ HW: Problem Set 10 #2, 12-14, 23
Tuesday	8/8	Graphing Calculator Activity ★ HW: WS 1
Wednesday	8/9	Lesson 11: Continuity and One-Sided Limits ★ HW: Problem Set 11 #1-25 Focus Problems: #3-4, 7-9, 11-14, 21-23
Thursday	8/10	Lesson 14: Limit of a Function ★ HW: WS 2
Friday	8/11	<b>Quiz #1: Lessons 1-11</b> ★ HW: None!

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# AP Calculus AB: Topics and Assignments

Weeks 3 and 4

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Monday	8/14	Lesson 15: Intervals and Increasing/Decreasing Functions ★ HW: Problem Set 15 #1-25 Focus Problems: #3, 5-8, 10-15
Tuesday	8/15	Lesson 16: Logarithms Review ★ HW: Problem Set 16 #3-18, 20
Wednesday	8/16	Lesson 17: Limits at Infinity ★ HW: WS 3
Thursday	8/17	Lesson 19: The Derivative ★ HW: Problem Set 19 #1-25 Focus Problems: #2-7, 9-14, 16, 20, 22-23
Friday	8/18	<b>Quiz #2: Lessons 11-17</b> ★ HW: None!

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Monday	8/21	Lesson 18: Function Composition Review ★ HW: Problem Set 18 #1-25 Focus Problems: #3-8, 10-12, 15, 19, 22
Tuesday	8/22	Lesson 24: The Power Rule ★ HW: Problem Set 24 #1-25 Focus Problems: #2-8, 15-18, 21
Wednesday	8/23	Lesson 25: Rules of Derivatives ★ HW: WS 4
Thursday	8/24	Lesson 26: Derivatives of $e^x$ , $\sin(x)$ , $\cos(x)$ , $\ln(x)$ and Exponential Growth and Decay Problems ★ HW: WS 5
Friday	8/25	<b>TEST #1: Lessons 1-24</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 5 and 6

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Monday	8/28	Lesson 27: Tangent Lines and Higher Order Derivatives ★ HW: Problem Set 27 #1-25 Focus Problems: #1-11, 15, 19
Tuesday	8/29	Lesson 28: Graphs of Rational Functions II ★ HW: WS 6
Wednesday	8/30	Lesson 29+31: Differentials and the Product Rule ★ HW: WS 7
Thursday	8/31	Lesson 32: Indefinite Integrals ★ HW: Problem Set 32 #1-25 Focus Problems: #2-11, 13-14, 17, 19
Friday	9/1	<b>Quiz #3: Lessons 24-28</b> ★ HW: None!

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Monday	9/4	NO SCHOOL!
Tuesday	9/5	Lesson 33: Graphs of Polynomial Functions ★ HW: Problem Set 33 #1-25 Focus Problems: #3, 5-9, 11-13, 15, 21-22
Wednesday	9/6	Lesson 34: Implicit Differentiation ★ HW: WS 8
Thursday	9/7	Lesson 35: More Indefinite Integrals ★ HW: Problem Set 35: #1-25 Focus Problems: #1-10, 12-18
Friday	9/8	<b>Quiz #4: Lessons 29-33</b> ★ HW: None!

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# AP Calculus AB: Topics and Assignments

Week 7

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Monday	9/11	Lesson 36: Critical Numbers ★ HW: Problem Set 36 #1-25 Focus Problems: #2-11, 13, 15, 18, 20-21
Tuesday	9/12	Lesson 37: Differentiation by U-Substitution ★ HW: Problem Set 37 #1-25 Focus Problems: #1-13, 15, 19
Wednesday	9/13	Lesson 38: Integrals of Sums ★ HW: Problem Set 38 #1-25 Focus Problems: #2-13, 16, 19
Thursday	9/14	Lesson 40: Units for Derivatives and Normal Lines ★ HW: Problem Set 40 #1-25 Focus Problems: #1-19, 22
Friday	9/15	<b>TEST #2: Lessons 1-38</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 8 and 9

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Monday	9/18	Lesson 39: Area Under a Curve (Upper and Lower Sums) ★ HW: None!
Tuesday	9/19	Lesson 39: Area Under a Curve (Left, Right, and Midpoint Sums) ★ HW: WS 9
Wednesday	9/20	Lesson 41: Graphs of Rational Functions III ★ HW: Problem Set 41 #1-25 Focus Problems: # 2-11, 13-20
Thursday	9/21	Lesson 42+43: Quotient Rule & Infinite Sums ★ HW: Problem Set 43 #1-25 Focus Problems: # 1-7, 9-16
Friday	9/22	Lessons 44: Chain Rule and Alternate Definition of Derivative ★ HW: WS 10

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Monday	9/25	Lesson 45: Using $f$ to Characterize $f'$ ★ HW: Problem Set 45 #1-25 Focus Problems: # 2-8, 12-20
Tuesday	9/26	Lesson 46: Related Rates ★ HW: Problem Set 46 #1-25 Focus Problems: #2-8
Wednesday	9/27	Lesson 46 Continued ★ HW: WS 11
Thursday	9/28	Lesson 47: Fundamental Theorem of Calculus + Definite Integral ★ HW: WS 12
Friday	9/29	<b>Quiz #5: Lessons 39-47, excluding 46</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Week 10

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Monday	10/2	Lesson 49: First and Second Derivative Tests ★ HW: None!
Tuesday	10/3	Lesson 49 Continued ★ HW: Problem Set 49 #1-25 Focus Problems: # 1-9, 11, 14-15, 22
Wednesday	10/4	Lesson 50: Derivatives of Composite Functions ★ HW: Problem Set 50 #1-25 Focus Problems: #1-16, 18
Thursday	10/5	Lesson 51: Integration by Guessing ★ HW: Problem Set 51 #1-25 Focus Problems: # 1-18
Friday	10/6	<b>Test # 3: Lessons 1-50</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 11 and 12

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Monday	10/16	Lessons 52+53: Optimization Problems ★ HW: WS 13
Tuesday	10/17	Lesson 54: Velocity and Acceleration ★ HW: Problem Set 54 #1-25 Focus Problems: # 2-10, 13, 17, 19
Wednesday	10/18	Lesson 56: More Integration by Guessing ★ HW: Problem Set 56 #1-25 Focus Problems: #2-12, 18, 21, 23
Thursday	10/19	Lesson 57: Properties of the Definite Integral ★ HW: Problem Set 57 #1-25 Focus Problems: # 4-13, 16-19
Friday	10/20	<b>Quiz #6 Lessons 46-56</b> ★ HW: None!

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Monday	10/23	Lesson 59: Computing Areas ★ HW: Problem Set 59 #1-25 Focus Problems: # 5-8, 12-16
Tuesday	10/24	Lesson 60: Area between Two Curves ★ HW: WS 14
Wednesday	10/25	Study for Trimester Final Exam ★ HW: None!
Thursday	10/26	<b>Trimester Final Exam Part 1</b> ★ HW: None!
Friday	10/27	<b>Trimester Final Exam Part 2</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 13 and 14

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Monday	10/30	Go over Trimester I Final Exam ★ HW: None!
Tuesday	10/31	Lesson 61: Playing Games ★ HW: Problem Set 61 #1-25 Focus Problems: # 5-19
Wednesday	11/1	Lesson 62: Work, Distance, and Rates ★ HW: Problem Set 62 #1-25 Focus Problems: # 4-11, 14-16, 19, 21, 22
Thursday	11/2	Lesson 63: Critical Number Theorem ★ HW: Problem Set 63 #1-25 Focus Problems: # 2-4, 6-12, 14-17, 20, 21
Friday	11/3	<b>Quiz #7: Lessons 56-60</b> ★ HW: None!

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Monday	11/6	Lesson 64: Derivatives of Inverse Trig Functions ★ HW: Problem Set 64 #1-25 Focus Problems: # 1, 4-7, 9, 11-19, 22
Tuesday	11/7	Lesson 65: Falling-Body Problems ★ HW: Problem Set 65 #1-25 Focus Problems: # 1-3, 5-9, 11-12, 15-19, 23
Wednesday	11/8	Lesson 67: Areas Involving Functions of $y$ ★ HW: WS 15
Thursday	11/9	<b>Quiz #8: Lessons 61-64</b> ★ HW: None!
Friday	11/10	NO SCHOOL!

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## AP Calculus AB: Topics and Assignments

Weeks 15 and 16

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Monday	11/13	Lesson 66: Integration Using U-Substitution ★ HW: Problem Set 66 #1-25 Focus Problems: # 4, 5, 14-19
Tuesday	11/14	Lesson 66 Continued ★ HW: Finish WS 16
Wednesday	11/15	Lesson 68: Even and Odd Functions ★ HW: Problem Set 68 #1-25 Focus Problems: # 2-9, 13, 16, 18
Thursday	11/16	AP Packet Workday (AP Packet Due 12/1) ★ HW: Study for Test!
Friday	11/17	<b>Test #5: Lessons 1-66</b> ★ HW: None!

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Monday	11/20	AP Packet Workday ★ HW: Work on AP Packet
Tuesday	11/21	AP Packet Work Day ★ HW: AP Packet #1 due <b>Friday 12/1!</b>
Wednesday	11/22	NO SCHOOL!
Thursday	11/23	NO SCHOOL!
Friday	11/24	NO SCHOOL!

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## AP Calculus AB: Topics and Assignments

Weeks 17 and 18

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Monday	11/27	NO SCHOOL!
Tuesday	11/28	Lesson 70: Properties of Limits ★ HW: Problem Set 70 #1-25 Focus Problems: #3, 6-13, 18, 19
Wednesday	11/29	Lesson 71: Solids of Revolution I: Disks ★ HW: Problem Set 71 #1-25 Focus Problems: #3-5
Thursday	11/30	Lesson 71 continued ★ HW: WS 17
Friday	12/1	Lesson 72: Derivatives of $\log(x)$ , $a^x$ and $ f(x) $ ★ HW: Problem Set 72 #1-25 Focus Problems: # 2-6, 8, 13-15, 17, 20-23

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Monday	12/4	Lesson 73: Integrals of $a^x$ and $\log(x)$ ★ HW: Problem Set 73 #1-25 Focus Problems: # 3-9, 11-13, 17, 20, 24, 25
Tuesday	12/5	Lesson 75: Continuity of Functions ★ HW: Problem Set 75 #1-25 Focus Problems: # 2-6, 9-11, 16, 18, 20-23
Wednesday	12/6	Lesson 78: Particle Motion I ★ HW: Problem Set 78 #1-25 Focus Problems: # 2-3, 6-7, 9-11, 14, 16, 23, 25
Thursday	12/7	Lesson 79: L'Hopital's Rule ★ HW: WS 18
Friday	12/8	<b>Quiz #9: Lessons 66-73</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 19 and 20

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Monday	12/11	Lesson 81: Solids of Revolution II (Washer Method) ★ HW: WS 19 (Due Wednesday)
Tuesday	12/12	Lesson 81: Solids of Revolution II: Washers ★ HW: WS 19
Wednesday	12/13	Lesson 82: Differentiability ★ HW: Problem Set 82 #1-25 Focus Problems: #3-4, 6-13
Thursday	12/14	Lesson 84: Logarithmic Differentiation ★ HW: Problem Set 84 #1-25 Focus Problems: #3, 5-9, 14, 16, 17, 19, 21, 24
Friday	12/15	<b>Test #6 : Lessons 1-78</b> ★ HW: None!

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Monday	12/18	Lesson 86: Rules for Even and Odd Functions ★ HW: Problem Set 86 #1-25 Focus Problems: #2-4, 10, 11, 13-15, 18, 20-22
Tuesday	12/19	<b>Quiz #10 : Lessons 75-81</b> ★ HW: Bring a gift under \$10
Wednesday	12/20	Christmas Party!
Thursday	12/21	NO SCHOOL!
Friday	12/22	NO SCHOOL!

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## AP Calculus AB: Topics and Assignments

Weeks 21 and 22

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Monday	1/8	Lesson 85: Mean Value Theorem and Rolle's Theorem ★ HW: None!
Tuesday	1/9	Lesson 85 continued ★ HW: WS 20
Wednesday	1/10	Lesson 88: Separable Differential Equations ★ HW: Problem Set 88 #1-25 Focus Problems: #6-8, 17, 22, 25
Thursday	1/11	Lesson 88 continued ★ HW: WS 21
Friday	1/12	<b>Test #7: Lessons 1-84</b> ★ HW: None!

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Monday	1/15	NO SCHOOL!
Tuesday	1/16	Lesson 89: Average Value of a Function ★ HW: Problem Set 89 #1-25 Focus Problems: #2,4,6-10, 12-15,24
Wednesday	1/17	Lesson 90: Particle Motion II ★ HW: Problem Set 90 #1-25 Focus Problems: #1-9,15
Thursday	1/18	Lesson 92: Derivatives of Inverse Functions ★ HW: WS 22
Friday	1/19	<b>Take Home Quiz</b> ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 23 and 24

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Monday	1/22	Lesson 94: Solids of Revolution IV: Displaced Axes ★ HW: Problem Set 94 #1-25 Focus Problems: #2, 6, 11, 12, 15, 18
Tuesday	1/23	Lesson 94 continued ★ HW: WS 23
Wednesday	1/24	Lesson 95: Trapezoidal Riemann Sums ★ HW: Problem Set 95 #1-25 Focus Problems: #4-5, 6a, 9, 10, 15a, 16, 17, 23, 24
Thursday	1/25	Lesson 96: Derivatives and Integrals of Absolute Value ★ HW: Problem Set 96 #1-25 Focus Problems: #1, 3-6, 7b, 10, 16, 22, 24
Friday	1/26	<b>Quiz #11: Lessons 85-94</b> ★ HW: None!

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Monday	1/29	Review for Trimester II Final Exam ★ HW: None!
Tuesday	1/30	Review for Trimester II Final Exam ★ HW: None!
Wednesday	1/31	<b>TRIMESTER II FINAL (Calculator MC)</b> ★ HW: Study for Final!
Thursday	2/1	<b>TRIMESTER II FINAL (Non-Calc MC + Calc FRQs)</b> ★ HW: Study for Final!
Friday	2/2	<b>TRIMESTER II FINAL (Non-Calculator FRQs)</b> ★ HW: Relax and Enjoy the weekend!

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## AP Calculus AB: Topics and Assignments

Weeks 25 and 26

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Monday	2/5	Lesson 97: Solids Defined by Cross Sections ★ HW: Problem Set 97 #1-25 Focus Problems: # 3-9, 13, 20
Tuesday	2/6	Lesson 97 continued ★ HW: WS 24 (Due Thursday)
Wednesday	2/7	Go Over Trimester Final Exam ★ HW: None!
Thursday	2/8	Lesson 98+136: Fundamental Theorem of Calculus, Part 2 ★ HW: Problem Set 98 #1-25 Focus Problems 98: # 3-8, 10-14, 16, 17 Focus Problems 137: # 6, 7
Friday	2/9	Lesson 104: Slope Fields ★ HW: WS 25

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Monday	2/12	Lesson 124: Implicit Differentiation Part II ★ HW: Problem Set 124 #1-25 Focus Problems: # 1-5, 20, 24, 25
Tuesday	2/13	Begin work on AP Packet # 2 ★ HW: None!
Wednesday	2/14	Work on AP Packet # 2 ★ HW: None!
Thursday	2/15	Work on AP Packet # 2 ★ HW: None!
Friday	2/16	Finish AP Packet # 2 ★ HW: None!

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## AP Calculus AB: Topics and Assignments

Weeks 27 and 28

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Monday	2/26	Go Over AP Packet 2 ★ HW: None!
Tuesday	2/27	Riemann Sum FRQ ★ HW: WS 26
Wednesday	2/28	Integration Application/Rate Problem FRQ ★ HW: WS 27
Thursday	3/1	MC Packet 1
Friday	3/2	Work on MC Packet 1 ★ HW: MC Packet 1

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Monday	3/5	MC Packet 2
Tuesday	3/6	Work on MC Packet 2 ★ HW: MC Packet 2
Wednesday	3/7	Review for Test #8
Thursday	3/8	<b>TEST #8 - FRQs</b>
Friday	3/9	<b>TEST #8 - MCs with a Calculator</b>

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## AP Calculus AB: Topics and Assignments

Weeks 29 and 30

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Monday	3/12	Go over Test #8 ★ HW: WS 28
Tuesday	3/13	Go over Derivative WS 28 ★ HW: WS 29
Wednesday	3/14	Go over Integral WS 29 MC Packet 3
Thursday	3/15	Work on MC Packet 3 ★ HW: MC Packet 3
Friday	3/16	<b>Quiz #12: Derivatives/Integrals</b>

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Monday	3/26	MC Packet 4
Tuesday	3/27	Work on MC Packet 4 ★ HW: MC Packet 4
Wednesday	3/28	MC Packet 5
Thursday	3/29	Work on MC Packet 5 ★ HW: MC Packet 5
Friday	3/30	OECD/PISA Test

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## AP Calculus AB: Topics and Assignments

Weeks 31 and 32

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Monday	4/2	MC Packet 6
Tuesday	4/3	MC Packet 7 ★ HW: MC Packet 6
Wednesday	4/4	MC Packet 8 ★ HW: MC Packet 7
Thursday	4/5	AIMS Test
Friday	4/6	Work on MC Packet 8 ★ HW: MC Packet 8

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## AP Calculus AB: Topics and Assignments

Weeks 33 and 34

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Monday	4/9	FRQ Packet 1 ★ HW: FRQ Packet 1
Tuesday	4/10	Go Over FRQ Packet 1 ★ HW: None!
Wednesday	4/11	FRQ Packet 2 ★ HW: FRQ Packet 2
Thursday	4/12	Go Over FRQ Packet 2 ★ HW: None!
Friday	4/13	NO SCHOOL!

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Monday	4/16	NO SCHOOL!
Tuesday	4/17	<b>MC Test Part 1</b> ★ HW: None!
Wednesday	4/18	<b>MC Test Part 2</b> ★ HW: None!
Thursday	4/19	FRQ Packet 3 ★ HW: FRQ Packet 3
Friday	4/20	Mock Exam Review ★ HW: None!

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**\*\*\* Saturday, April 21th, Full Mock AP Calculus AB Exam \*\*\***

Afternoon start time is 12:30 PM

## AP Calculus AB: Topics and Assignments

Weeks 35 and 36

Monday	4/23	Go Over FRQ Packet 3 HW: None!
Tuesday	4/24	FRQ Packet 4 ★ HW: FRQ Packet 4 (Due Wednesday)
Wednesday	4/25	Go Over FRQ Packet 4 ★ HW: None!
Thursday	4/26	FRQ Packet 5 ★ HW: FRQ Packet 5 (Due Friday)
Friday	4/27	Go Over FRQ Packet 5 ★ HW: None!

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Monday	4/30	FRQ Packet 6 ★ HW: FRQ Packet 6 (Due Tuesday)
Tuesday	5/1	Go Over FRQ Packet 6 ★ HW: None!
Wednesday	5/2	Review Day ★ HW: None!
Thursday	5/3	<b>BIG 6 Test Part 1</b>
Friday	5/4	<b>BIG 6 Test Part 2</b>

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**\*\*\* Thursday, May 15th, AP Calculus AB Exam \*\*\***

8 AM