# Pre-Calculus AB: Topics and Assignments Weeks of 8/1 and 8/8

Monday	8/1	NO SCHOOL!	
Tuesday	8/2	NO SCHOOL!	
Wednesday	8/3	Start of School	
Thursday	8/4	Class Policy and Expectations Lesson 5  Exponents and Radicals  Complex Numbers  Areas of Similar Geometric Figures  Diagonals of Rectangular Solids	
Friday	8/5	Lesson 6 Fractional Equations Radical Equations Systems of Three Linear Equations	* HW DUE: PS 5 Parent Letter Student Info Sheet
Monday	8/8	Lesson 7  Inductive and Deductive Reasoning  Logic  Contrapositive, converse, inverse	* HW DUE: PS 6
Tuesday	8/9	Lesson 8 Statements of Similarity Proportional Segments Angle Bisectors, Side Ratios	★ HW DUE: PS 7
Wednesday	8/10	Quiz #1: Lessons 1-6	★ HW DUE: PS 8
Thursday	8/11	Lesson 9  Congruent Figures  Proof Outlines	* HW DUE: None!
Friday	8/12	Lesson 10  Equation of a Line  Rational Denominators  Completing the Square	★ HW DUE: PS 9

# Pre-Calculus AB: Topics and Assignments Weeks of 8/15 and 8/22

Monday	8/15	Lesson 11 Circles Properties of Circles	* HW DUE: PS 10
Tuesday	8/16	Lesson 12 Angles, diagonals in Polygons	* HW DUE: WS 1
Wednesday	8/17	TEST #1: Lessons 1-8	* HW DUE: None!
Thursday	8/18	Lesson 13  Intersecting Secants, tangents  Products of Chord Segments  Product secant, tangent segments	★ HW DUE: PS 12
Friday	8/19	Lesson 14 Sine, Cosine, Tangent Angles of Elevation, depression Rectangular Polar Coords Coordinate Conversion	* HW DUE: PS 13
Monday	8/22	Lesson 15 Proofs	* HW DUE: WS 2
Tuesday	8/23	Lesson 16  Complex Fractions  Abstract Equations  Division of Polynomials	★ HW DUE: PS 15
Wednesday	8/24	Quiz #2: Lessons 8-14	★ HW DUE: PS16
Thursday	8/25	Lesson 17  Proofs of Pythagorean Thm  Proofs of Similarity	★ HW DUE: None!
Friday	8/26	Lesson 18 Advanced Word Problems	* HW DUE: PS 17

## Pre-Calculus AB: Topics and Assignments Weeks of 8/29 and 9/5

Monday	8/29	Lesson 19 Nonlinear Systems Factoring Exponentials Sum, Difference of Cubes	* HW DUE: WS 3
Tuesday	8/30	Lesson 20 Two Special Triangles	* HW DUE: PS 19
Wednesday	8/31	TEST #2: Lessons 1-16	★ HW DUE: None!
Thursday	9/1	Lesson 21  Evaluating Functions  Domain and Range  Tests for Functions	* HW DUE: PS 20
Friday	9/2	Lesson 21  Basic Graphs  Transformations	* HW DUE: WS 4
Monday	9/5	NO SCHOOL!	
Tuesday	9/6	Lesson 22  Absolute Value Function  Reciprocal Functions	* HW DUE: WS 5
Wednesday	9/7	Quiz #3: Lessons 16-21	★ HW DUE: PS 22
Thursday	9/8	Lesson 23 Exponential Functions sketching Exponentials	* HW DUE: None!
Friday	9/9	Lesson 24 Sum of Trig Functions Combining Functions	* HW DUE: PS 23

# Pre-Calculus AB: Topics and Assignments Weeks of 9/12 and 9/19

Monday	9/12	Lesson 25 Rate Problems	* HW DUE: PS 24
Tuesday	9/13	Lesson 26  Log and Exponential Form  Log Equations	* HW DUE: WS 6
Wednesday	9/14	TEST #3: Lessons 1-22	★ HW DUE: None!
Thursday	9/15	Lesson 27 Related Angles Sign of Trig Functions	* HW DUE: PS 26
Friday	9/16	Lesson 28 Factorial Notation Abstract Rate Problems	* HW DUE: PS 27
Monday	9/19	Lesson 29  The Unit Circle  Quadrantal Angles	* HW DUE: PS 28
Tuesday	9/20	Lesson 30  Addition of Vectors  Overlapping Triangles	* HW DUE: WS 7
Wednesday	9/21	Quiz #4: Lessons 21-28	★ HW DUE: PS 30
Thursday	9/22	Lesson 31 Symmetry Reflections Translations	⋆ HW DUE: None!
Friday	9/23	Lesson 32 Inverse Functions	* HW DUE: PS 31

# Pre-Calculus AB: Topics and Assignments Weeks of 9/26 and 10/3

Monday	9/26	Lesson 32 Inverse Trig Functions	* HW DUE: WS 8
Tuesday	9/27	$\begin{array}{c} {\rm Lesson} \ 33 \\ {\it Quadrilaterals} \\ {\it Parallelograms} \\ {\it Trapezoids} \end{array}$	* HW DUE: WS 9
Wednesday	9/28	TEST #4: Lessons 1-30	* HW DUE: None!
Thursday	9/29	Lesson 34 Summation Notation Linear Regression Decomposing Functions	★ HW DUE: PS 33
Friday	9/30	Lesson 35  Change in Coordinates  Distance Formula	* HW DUE: WS 10
Monday	10/3	Lesson 36 & 37  Line as a Locus  Midpoint Formula	★ HW DUE: PS 35
Tuesday	10/4	Lesson 38  Fund. Counting Principle  Permutations  Designated Roots  Overall Average Rate	★ HW DUE: PS 37
Wednesday	10/5	Lesson 39 Forms of a Line	★ HW DUE: PS 38
Thursday	10/6	Quiz #5: Lessons 29-35	* HW DUE: WS 11
Friday	10/7	Lesson 40  Argument in Math  Law of Logs  Properties of Inverses	* HW DUE: None!

## Pre-Calculus AB: Topics and Assignments Weeks of 10/10 and 10/17

Monday	10/10	NO SCHOOL!	
Tuesday	10/11	NO SCHOOL!	
Wednesday	10/12	NO SCHOOL!	
Thursday	10/13	NO SCHOOL!	
Friday	10/14	NO SCHOOL!	
Monday	10/17	Lesson 41  Reciprocal Trig Functions  Permutation Notation	* HW DUE: WS 12
Tuesday	10/18	TEST #5: Lessons 1-38	★ HW DUE: None!
Wednesday	10/19	Lesson 42  Conic Sections  Circles  Exponential Functions	* HW DUE: PS 41
Thursday	10/20	Lesson 43  Periodic Functions  Graphs of Sine and Cosine	* HW DUE: WS 13
Friday	10/21	Lesson 44 Abstract Rate Problems	* HW DUE: WS 14

## Pre-Calculus AB: Topics and Assignments Weeks of 10/24 and 10/31

Monday	10/24	Lesson 45  Conditional Permutations  Two-variable Analysis	* HW DUE: PS 44
Tuesday	10/25	Lesson 46 $Complex\ Roots$ $Factoring\ over\ \mathbb{C}$	* HW DUE: PS 45
Wednesday	10/26	Quiz #6: Lessons 38-44	* HW DUE: None!
Thursday	10/27	Lesson 47 $Vertical\ Sinusoid\ Shifts$ $Arctangent$	* HW DUE: WS 15
Friday	10/28	Lesson 48  Powers of Trig Functions  Perpendicular Bisectors	* HW DUE: WS 16
Monday	10/31	Lesson 49 & 50  Log Functions  Trig Equations	* HW DUE: PS 48
Tuesday	11/1	Lesson 51 & 52  Natural and Common Logs  Arguments in Trig Equations	* HW DUE: WS 17
Wednesday	11/2	TEST #6: Lessons 1-46	* HW DUE: None!
Thursday	11/3	Lesson 53  Unit Multipliers  Angular Velocity	★ HW DUE: PS 52
Friday	11/4	Lesson 54  Parabolas	* HW DUE: PS 53

# Pre-Calculus AB: Topics and Assignments Weeks of 11/7 and 11/14

Monday	11/7	Lesson 55 Circular Permutations Distinguishable Permutations	* HW DUE: WS 18
Tuesday	11/8	Lesson 56  Triangular Areas  System of Inequalities	* HW DUE: PS 55
Wednesday	11/9	Quiz #7: Lessons $46-53$	
Thursday	11/10	Lesson 57  Phase Shifts  Period of a Sinusoid	★ HW DUE: PS 56
Friday	11/11	NO SCHOOL!	
Monday	11/14	Lesson 58  Distrace from point to line  More Parabolas	* HW DUE: WS 19
Tuesday	11/15	Lesson 59  Advanced Log Problems  Color of the White House	* HW DUE: PS 58
Wednesday	11/16	TEST #7: Lessons 1-55	* HW DUE: None!
Thursday	11/17	Lesson 60  Factorable Trig Equations  Loss of Solutions	* HW DUE: WS 20
Friday	11/18	Lesson 61 Single-variable Analysis Normal Distribution Box and Whisker Plots	* HW DUE: WS 21

## Pre-Calculus AB: Topics and Assignments Weeks of 11/21 and 11/28

Monday	11/21	Lesson 62 & 63  Abstract Coefficients  Linear Variation  Circles	* HW DUE: PS 61
Tuesday	11/22	Fun Day	* HW DUE: WS 22
Wednesday	11/23	NO SCHOOL!	
Thursday	11/24	NO SCHOOL!	
Friday	11/25	NO SCHOOL!	
Monday	11/28	NO SCHOOL!	
Tuesday	11/29	Lesson 64  Complex Plane  Polar Form  Sums and Products	★ HW DUE: None!
Wednesday	11/30	Quiz #8: Lessons 55-61	* HW DUE: PS 64
Thursday	12/1	Lesson 65  Radicals in Trig Equations  Graphs of Log Functions	* HW DUE: None!
Friday	12/2	Lesson 66 Standard Form of a Sinusoid	* HW DUE: PS 65

## Pre-Calculus AB: Topics and Assignments Weeks of 12/5 and 12/12

Monday	12/5	Lesson 67 & 68  Antilogarithms  Locus Definition-Parabola  Focus and Directrix	* HW DUE: WS 23
Tuesday	12/6	Lesson 68 Standard Form of a Parabola Applications	★ HW DUE: PS 67
Wednesday	12/7	TEST #8: Lessons 1-64	★ HW DUE: None!
Thursday	12/8	Lesson 69  Matrices  Determinants	★ HW DUE: PS 68
Friday	12/9	Calculator Day Graphing, Changing Window Finding zeros, max, min Intersection Points	* HW DUE: WS 24
Monday	12/12	Lesson 71 The Ellipse	* HW DUE: WS 25
Tuesday	12/13	Lesson 72  One Side, Two Parts  Law of Sines	* HW DUE: PS 71
Wednesday	12/14	Lesson 73 & 74  Regular Polygons  Cramer's Rule	* HW DUE: WS 26
Thursday	12/15	Lesson 75 $Combinations$	* HW DUE: PS 74
Friday	12/16	Quiz # 9: Lessons 65 - 74	* HW DUE: PS 75

# Pre-Calculus AB: Topics and Assignments Weeks of 12/19 and 1/9

Monday	12/19	Lesson 76  Even and Odd Functions  Trig Identities	* HW DUE: None!
Tuesday	12/20	Lesson 77 Binomial Expansion	* HW DUE: WS 28
Wednesday	12/21	Review Day	* HW DUE: WS 29
Thursday	12/22	Christmas Party!	⋆ HW DUE: None!
Friday	12/23	NO SCHOOL!	
Monday	1/9	Review - Functions	
Tuesday	1/10	Review - Trig Functions	
Wednesday	1/11	Review - Word Problems	
Thursday	1/12	Review - Geometry	
Friday	1/13	Review - Algebra	

## Pre-Calculus AB: Topics and Assignments Weeks of 1/16 and 1/23

Monday	1/16	NO SCHOOL!	
Tuesday	1/17	Pre-Comps or Midterms	
Wednesday	1/18	Pre-Comps or Midterms $PreCalc\ AB\ Midterm\ Multiple\ Choice$	
Thursday	1/19	Pre-Comps or Midterms  PreCalc AB Free Response  Pre-Calc AB Pre-Comp	
Friday	1/20	Review Lessons 75-77  Combinations  Even and Odd Functions  Trig Identities  Binomial Expansion	* HW DUE: None!
Monday	1/23	Lesson 78  The Hyperbola	* HW DUE: PS 77
Tuesday	1/24	Lesson 79  De Moivre's Theorem  Roots of Complex Numbers	* HW DUE: PS 78
Wednesday	1/25	TEST #9: Lessons 1- 75	★ HW DUE: None!
Thursday	1/26	Lesson 80 Trig Identities	* HW DUE: WS 30
Friday	1/27	Lesson 81  Law of Cosine	* HW DUE: PS 80

# Pre-Calculus AB: Topics and Assignments Weeks of 1/30 and 2/6

Monday	1/30	Lesson 82  Taking the Log of  Exponential Equations	* HW DUE: WS 31
Tuesday	1/31	Lesson 83 Simple Probability Independent Events	* HW DUE: WS 32
Wednesday	2/1	Quiz # 10 : Lessons 75-81	★ HW DUE: PS 83
Thursday	2/2	Lesson 84 Factorable Expressions Sketching Sinusoids	* HW DUE: None!
Friday	2/3	Lesson 85  Advanced Trig Equations	* HW DUE: WS 33
Monday	2/6	Lesson 86 Arithmetic Progressions Arithmetic Means	* HW DUE: PS 85
Tuesday	2/7	Lesson 87 Sum/Difference Identities Tangent Iddentities	* HW DUE: WS 34
Wednesday	2/8	TEST #10: Lessons 1-83	★ HW DUE: None!
Thursday	2/9	Lesson 88  Exponential Functions  Exponential Growth/Decay	★ HW DUE: PS 87
Friday	2/10	Lesson 89 & 90  The Ellipse (2)  Double Angle Identities	* HW DUE: WS 35

# Pre-Calculus AB: Topics and Assignments Weeks of 2/13 and 2/20

Monday	2/13	Lesson 91 & 92  Geometric Progression  Probability of Either	* HW DUE: PS 90
Tuesday	2/14	Lesson 93  Advanced Trig Identities  Triangle Inequalities	* HW DUE: WS 36
Wednesday	2/15	Quiz #11: Lessons: 83-89	★ HW DUE: PS 93
Thursday	2/16	Lesson 94 & 95  Graphs of Secant, Cosecant  Graphs of Tangent, Cotangent  Advanced Complex Roots	* HW DUE: None!
Friday	2/17	Lesson 96 & 97  Double Angle Identities  Triangle Area Formula  The Ambiguous Case	* HW DUE: WS 37
Monday	2/20	Lesson 98  Change of Base Formula  Contrived Log Problems	★ HW DUE: PS 97
Tuesday	2/21	Lesson 99 Sequence Notation Advanced Sequence Problems Arithmetic/Geometric Means	* HW DUE: PS 98
Wednesday	2/22	NO SCHOOL!	★ HW DUE: None!
Thursday	2/23	NO SCHOOL!	* HW DUE: None!
Friday	2/24	NO SCHOOL!	★ HW DUE: None!

# Pre-Calculus AB: Topics and Assignments Weeks of 2/27 and 3/6

Monday	2/27	Series (104)  Arithmetic Series  Geometric Series  Nth Partial Sums	* HW DUE: WS 38
Tuesday	2/28	Series (117)  Infinite Series  Convergent Geometric Series	* HW DUE: PS 99
Wednesday	3/1	TEST # 11: Lessons 1-97	★ HW DUE: None!
Thursday	3/2	Matrices (101, 105) 3 x 3 Determinants Cramer's Rule Independent Systems	* HW DUE: WS 39
Friday	3/3	Matrices (108)  Matrix Multiplication	★ HW DUE: WS 40
Monday	3/6	Rationals and Primes (109, 117)  Rational vs. Real Numbers  Proof Number is Rational  Prime vs. Relatively Prime	* HW DUE: WS 41
Tuesday	3/7	Binomial Theorem (102, 112)  Binomial Expansion  Combinations-Pascal's Triangle  Binomial Theorem	★ HW DUE: WS 42
Wednesday	3/8	Quiz # 12: Series, Matrices	* HW DUE: None!
Thursday	3/9	Conic Sections (106, 123)  Types of Conic Sections  Translated Conic Sections  General Conic Equation	* HW DUE: WS 43
Friday	3/10	Fun Day!	* HW DUE: WS 44

## Pre-Calculus AB: Topics and Assignments Weeks of 3/13 and 3/20

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Monday	3/13	NO SCHOOL!	
Tuesday	3/14	NO SCHOOL!	
Wednesday	3/15	NO SCHOOL!	
Thursday	3/16	NO SCHOOL!	
Friday	3/17	NO SCHOOL!	
Monday	3/20	Inverse Trig Functions (110)  Graphs, Domain, Range Inverse Properties	★ HW DUE: None!
Tuesday	3/21	Inverse Trig Functions (110) $Applications$	* HW DUE: WS 45
Wednesday	3/22	TEST # 12: upto $3/9/17$	* HW DUE: None!
Thursday	3/23	Exponential Functions (88)  Solving Equations  Word Problems	* HW DUE: WS 46
Friday	3/24	Exponential Functions (88)  Exponential Models  Interpretations	★ HW DUE: WS 47

# Pre-Calculus AB: Topics and Assignments Weeks of 3/27 and 4/3

Monday	3/27	AIMS	
Tuesday	3/28	AZmerit	
Wednesday	3/29	AZmerit	
Thursday	3/30	AZmerit	
Friday	3/31	Functions (24)  Continuous Functions Increasing/Decreasing Local Maximas/Minimas Function Operations	★ HW DUE: WS 48
Monday	4/3	Functions (21, 31, 32)  Transformations  One-to-one Functions  Inverse Functions	★ HW DUE: WS 49
Tuesday	4/4	Functions (18, 44)  A Function of  Word Problems	★ HW DUE: WS 50
Wednesday	4/5	Quiz# 13: TBA	★ HW DUE: None!
Thursday	4/6	Piecewise Functions (121)  Evaluating  Graphing  Writing Equations	★ HW DUE: WS 51
Friday	4/7	Piecewise Functions (121) $Step Functions$ $Applications$	★ HW DUE: WS 52

# Pre-Calculus AB: Topics and Assignments Weeks of 4/10 and 4/17

Monday	4/10	Absolute Value Functions (22)  Graphs of $ f(x) $ Graphs of $f( x )$	* HW DUE: WS 53
Tuesday	4/11	Optimization Problems  Set Up  Finding Max/Min on Calc	★ HW DUE: WS 54
Wednesday	4/12	Review	★ HW DUE: WS 55
Thursday	4/13	TEST # 13: Functions to $4/4$	★ HW DUE: None!
Friday	4/14	NO SCHOOL!	
Monday	4/17	NO SCHOOL!	
Tuesday	4/18	Polynomials (113, 114, 115)  End Behavior  Local vs. Absolute Extrema  Turning Points/Zeros  Graphs-Distinct Linear Factors	* HW DUE: None!
Wednesday	4/19	Quiz # 14: Functions to $4/11$	★ HW DUE: None!
Thursday	4/20	Polynomials (114)  Irreducible Factors  Multiplicity of Roots  Graphs	* HW DUE: WS 56
Friday	4/21	Polynomials (117, 118)  Factoring Polynomials  Remainder Theorem  Rational Roots Theorem	★ HW DUE: WS 57

# Pre-Calculus AB: Topics and Assignments Weeks of 4/24 and 5/1

Monday	4/24	Rational Functions (122)  Holes and Zeros  Vertical Asymptotes  Horizontal/Slant Asymptotes	* HW DUE: WS 58
Tuesday	4/25	Ractional Functions (122)  End behavior  Sign Chart  Graphs	* HW DUE: WS 59
Wednesday	4/26	Rational Functions (122, 125)  Graphs	* HW DUE: WS 60
Thursday	4/27	Test Review	★ HW DUE: WS 61
Friday	4/28	TEST # 14: Functions to 4/25	★ HW DUE: None!
Monday	5/1	Topic: Comp Review  Complex numbers (14, 79)  Functions (21, 34, 38)	⋆ HW: None!
Tuesday	5/2	Topic: Comp Review  Trig Functions (32, 41, 48, 66)  Permutations (38)  Combinations (75)  Binomial Exp. (77)  Sequences (99)	* HW: Comp WS 1 Comp WS 2
Wednesday	5/3	Topic: Comp Review  Trig Equations (52, 60, 84)  System of Inequalities (56)  Completing the Square (63)	* HW: Comp WS 3 Comp WS 4
Thursday	5/4	Topic: Comp Review  Logarithms (59, 98)  Cramer's Rule (62, 74)  Determinants (69)	* HW: Comp WS 5 Comp WS 6
Friday	5/5	Topic: Comp Review  Law of Sines (72)  Identities (87, 90, 96)  Exponential Functions (82, 88)	* HW: Comp WS 7 Comp WS 8

## Pre-Calculus AB: Topics and Assignments Weeks of 5/8 and 5/15

Monday	5/8	Topic: Comp Review  Polynomials  Rational Functions	* HW: Comp WS 9 & 10
Tuesday	5/9	Topic: Comp Review	* HW: Comp WS 11 & 12
Wednesday	5/10	Topic: Comp Review	⋆ HW: None!
Thursday	5/11	Topic: Comp Reivew	⋆ HW: None!
Friday	5/12	Topic: Comp Review	★ HW: None!
Monday	5/15	Comp or Final Exams	
Tuesday	5/16	Comp or Final Exams	
Wednesday	5/17	Comp or Final Exams	
Thursday	5/18	Checkout Day	
Friday	5/19	Start of Project Week	