## ShareWorld Learning Center 2023 06/19~08/09 Algebra 2 & Trigonometry

Instructor: Michael Lee

Textbook: Algebra and Trigonometry – Structure and Method • Book 2 ISBN: 0395585368 (0-395-58536-8), or 0395771188, or 0395977258, or ...

Date	Syllabus	Date	Syllabus
06-19	Chapter 1 – Basic Concepts of	06-21	Review/Test (Chapter 1~2)
00 17	Algebra	00 21	Symbolic Logic: Boolean Algebra
	1.1 Real Numbers and Their Graphs		Chapter 3 – Linear Equations and
	1.2 Simplifying Expressions		Their Graphs
	1.3 Basic Properties of Real Numbers		3.1 Open Sentences in Two Variables
	1.4 Sums and Differences		3.2 Graphs of Linear Equations in
	1.5 Products		Two Variables
	1.6 Quotients		3.3 The Slope of a Line
	1.7 Solving Equations in One		3.4 Finding an Equation of a Line
	Variable		3.5 Systems of Linear Equations in
	1.8 Words into Symbols		Two Variables
	1.9 Problem Solving with Equations		3.6 Problem Solving: Using Systems
	Homework: P.55~56 #1~18		3.7 Linear Inequalities in Two Variables
	Chapter 2 – Working with		3.8 Functions
	Inequalities		3.9 Linear Functions
	2.1 Solving Inequalities in One		3.10 Relations
	Variable		Homework: P.162~163 #1~18
	2.2 Solving Combined Inequalities		
	2.3 Problem Solving Using		
	Inequalities		
	2.4 Absolute Value in Open		
	Sentences		
	2.5 Solving Absolute Value Sentences Graphically		
	2.6 Theorems and Proofs		
	2.7 Theorems about Order and		
	Absolute Value		
	Homework: P.93~94 #1~13		
	Homework: P.99 #1~7		
06-26	Review/Test (Chapter 3)	06-28	Review/Test (Chapter 4)
	Chapter 4 – Products and Factors of		Chapter 5 – using the Laws of
	Polynomials		Exponents
	4.1 Polynomials		5.1 Quotients of Monomials
	4.2 Using Laws of Exponents		5.2 Zero and Negative Exponents
	4.3 Multiplying Polynomials		5.3 Scientific Notation and
	4.4 Using Prime Factorization		Significant Digits
	4.5 Factoring Polynomials		5.4 Rational Algebraic Expressions
	4.6 Factoring Quadratic Polynomials		5.5 Product and Quotients of Rational
	4.7 Solving Polynomial Equations		Expressions

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	4.8 Problem Solving Using		5.6 Sums and Differences of Rational
	Polynomial Equations		Expressions
	4.9 Solving Polynomial Inequalities		5.7 Complex Fractions
	Homework: P.207~208 #1~19		5.8 Fractional Coefficients
	Homework: P.209 #1~7		5.9 Fractional Equations
			Homework: P255~256 #1~18
07-03	Review/Test (Chapter 5)	07-05	Continue
	Chapter 6 – Irrational and Complex		Chapter 6 – Irrational and Complex
	Numbers		Numbers
	6.1 Roots of Real Numbers		6.1 Roots of Real Numbers
	6.2 Properties of Radicals		6.2 Properties of Radicals
	6.3 Sums of Radicals		6.3 Sums of Radicals
	6.4 Binomials Containing Radicals		6.4 Binomials Containing Radicals
	6.5 Equations Containing Radicals		6.5 Equations Containing Radicals
	6.6 Rational and Irrational Numbers		6.6 Rational and Irrational Numbers
	6.7 The Imaginary Number i		6.7 The Imaginary Number i
	6.8 The Complex Numbers		6.8 The Complex Numbers
	Homework: P.302~303 #1~16		Homework: P.302~303 #1~16
	Homework: P.305 #1~8		Homework: P.305 #1~8
07-10	Review/Test (Chapter 6)	07-12	Review/Test (Chapter 7)
07 10	Chapter 7 – Solving Quadratic	07 12	Chapter 8 - Variation and Polynomial
	Equations		Equations
	7.1 Completing the Square		8.1 Direct Variation and Proportion
	7.2 The Quadratic Formula		8.2 Inverse and Joint Variation
	7.3 The Quadratic Political 7.3 The Discriminant		
			8.3 Dividing Polynomials 8.4 Synthetic Division
	7.4 Equations in Quadratic Form 7.5 Graphing $y - k = a (x - h)^2$		8.5 The Remainder and Factor
	7.6 Quadratic Functions		Theorems
			8.6 Some Useful Theorems
	7.7 Writing Quadratic Equations and Functions		
	Homework: P.346~347 #1~15		8.7 Finding Rational Roots Homework: P.397~398 #1~13
	nomework: P.340~34/#1~13		
07.17	D /T (C1 0)	07.10	Homework: P.399 #1~9
07-17	Review/Test (Chapter 8)	07-19	Continue
	Chapter 9 – Analytic Geometry		Chapter 9 – Analytic Geometry
	9.1 Distance and Midpoint Formulas		9.1 Distance and Midpoint Formulas
	9.2 Circles		9.2 Circles
	9.3 Parabolas		9.3 Parabolas
	9.4 Ellipses		9.4 Ellipses
	9.5 Hyperbolas		9.5 Hyperbolas
	9.6 More on Central Conics		9.6 More on Central Conics
	9.7 The Geometry of Quadratic		9.7 The Geometry of Quadratic
	Systems		Systems
	9.8 Solving Quadratic Systems		9.8 Solving Quadratic Systems
	9.9 Systems of Linear Equations in		9.9 Systems of Linear Equations in
	Three Variables		Three Variables
	Homework: P.451~453 #1~20		Homework: P.451~453 #1~20
07-24	Review/Test (Chapter 9)	07-26	Continue
	Chapter 10 - Exponential and		Chapter 10 – Exponential and
	Logarithmic Functions		Logarithmic Functions
	10.1 Rational Exponents		10.1 Rational Exponents

	10.2 Real Number Exponents		10.2 Pool Number Evenements
			10.2 Real Number Exponents
	10.3 Composition and Inverses of Functions		10.3 Composition and Inverses of Functions
	10.4 Definition of Logarithms		10.4 Definition of Logarithms
	10.5 Laws of Logarithms		10.5 Laws of Logarithms
	10.6 Applications of Logarithms		10.6 Applications of Logarithms
	10.7 Problem Solving: Exponential		10.7 Problem Solving: Exponential
	Growth and Decay		Growth and Decay
	10.8 The Natural Logarithm Function		10.8 The Natural Logarithm Function
	Homework: P.496~497 #1~16		Homework: P.496~497 #1~16
05.21	Homework: P.499 #1~8	00.00	Homework: P.499 #1~8
07-31	Review/Test (Chapter 10)	08-02	Continue
	Chapter 12 – Triangle Trigonometry		Chapter 12 – Triangle Trigonometry
	12.1 Angles and Degree Measure		12.1 Angles and Degree Measure
	12.2 Trigonometric Functions of		12.2 Trigonometric Functions of
	Acute Angles		Acute Angles
	12.3 Trigonometric Functions of		12.3 Trigonometric Functions of
	General Angles		General Angles
	12.4 Values of Trigonometric		12.4 Values of Trigonometric
	Functions		Functions
	12.5 Solving Right Triangles		12.5 Solving Right Triangles
	12.6 The Law of Cosines		12.6 The Law of Cosines
	12.7 The Law of Sines		12.7 The Law of Sines
	12.8 Areas of Triangles		12.8 Areas of Triangles
	Homework: P.602~604 #1~20		Homework: P.602~604 #1~20
	Homework: P.605 #1~8		Homework: P.605 #1~8
08-07	Review/Test (Chapter 12)	08-09	Continue
	Chapter 13 – Trigonometric Graphs;		Chapter 13 – Trigonometric Graphs;
	Identities		Identities
	13.1 Radian Measure		13.1 Radian Measure
	13.2 Circular Functions		13.2 Circular Functions
	13.3 Periodicity and Symmetry		13.3 Periodicity and Symmetry
	13.4 Graphs of the Sine and Cosine		13.4 Graphs of the Sine and Cosine
	13.5 Graphs of the Other Functions		13.5 Graphs of the Other Functions
	13.6 The Fundamental Identities		13.6 The Fundamental Identities
	13.7 Trigonometric Addition		13.7 Trigonometric Addition
	Formulas		Formulas
	13.8 Double-Angle and Half-Angle		13.8 Double-Angle and Half-Angle
	Formulas		Formulas
	13.9 Formulas for the Tangent		13.9 Formulas for the Tangent
	Homework: P.655~656 #1~18		Homework: P.655~656 #1~18