

Summer 2010 Algebra 2

Instructor: Michael Lee

Schedule: June 22-August 12, Tuesday & Thursday, 6:30-8:30 pm

Textbook: Algebra and Trigonometry – Structure and Method • Book 2 (ISBN: 0-395-97725-8)

Date	Syllabus	Date	Syllabus
06-22	1.1 Real Numbers and Their Graphs 1.2 Simplifying Expressions 1.3 Basic Properties of Real Numbers 1.4 Sums and Differences 1.5 Products 1.6 Quotients 1.7 Solving Equations in One Variable 1.8 Words into Symbols 1.9 Problem Solving with Equations Homework: P.55~56 #1~18; Handout 2.1 Solving Inequalities in One Variable 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; Handout	06-24	Test (Chapter 1~2) Symbolic Logic: Boolean Algebra 3.1 Open Sentences in Two Variables 3.2 Graphs of Linear Equations in Two Variables 3.3 The Slope of a Line 3.4 Finding an Equation of a Line 3.5 Systems of Linear Equations in Two Variables 3.6 Problem Solving: Using Systems 3.7 Linear Inequalities in Two Variables 3.8 Functions 3.9 Linear Functions 3.10 Relations Homework: P.162 ~163 #1~18; P.165 #1~27 (odd) ; Handout
06-29	Test (Chapter 3) 4.1 Polynomials 4.2 Using Laws of Exponents 4.3 Multiplying Polynomials 4.4 Using Prime Factorization 4.5 Factoring Polynomials 4.6 Factoring Quadratic Polynomials Homework: P.207 #1~14; Handout	07-01	Quiz (4.1~4.6) 4.7 Solving Polynomial Equations 4.8 Problem Solving Using Polynomial Equations 4.9 Solving Polynomial Inequalities Homework: P.207~208 #15~19 5.1 Quotients of Monomials 5.2 Zero and Negative Exponents 5.3 Scientific Notation and Significant Digits Homework: P.255 #1~6; Handout
07-06	Test (Chapter 4) 5.4 Rational Algebraic Expressions 5.5 Product and Quotients of Rational	07-08	Test (Chapter 5) 6.1 Roots of Real Numbers 6.2 Properties of Radicals

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	Expressions 5.6 Sums and Differences of Rational Expressions 5.7 Complex Fractions 5.8 Fractional Coefficients 5.9 Fractional Equations Homework: P255~256 #7~18; Handout		6.3 Sums of Radicals 6.4 Binomials Containing Radicals 6.5 Equations Containing Radicals 6.6 Rational and Irrational Numbers Homework: P302 #1~12; Handout
07-13	Quiz (6.1~6.6) 6.7 The Imaginary Number i 6.8 The Complex Numbers Homework: P.303 #13~16; Handout 7.1 Completing the Square 7.2 The Quadratic Formula 7.3 The Discriminant 7.4 Equations in Quadratic Form Homework: P.346 #1~8; Handout	07-15	Test (Chapter 6) 7.5 Graphing $y - k = a(x - h)^2$ 7.6 Quadratic Functions 7.7 Writing Quadratic Equations and Functions Homework: P.347 #9~15; Handout 8.1 Direct Variation and Proportion 8.2 Inverse and Joint Variation Homework: P.397 #1~4; Handout
07-20	Test (Chapter 7) 8.3 Dividing Polynomials 8.4 Synthetic Division 8.5 The Remainder and Factor Theorems 8.6 Some Useful Theorems 8.7 Finding Rational Roots Homework: P.397~398 #5~11; Handout	07-22	Test (Chapter 8) 10.1 Rational Exponents 10.2 Real Number Exponents 10.3 Composition and Inverses of Functions 10.4 Definition of Logarithms 10.5 Laws of Logarithms Homework: P.496 #1~12; Handout
07-27	Quiz (10.1~10.5) 10.6 Applications of Logarithms 10.7 Problem Solving: Exponential Growth and Decay 10.8 The Natural Logarithm Function P.497 #13~16; Handout	07-29	Test (Chapter 10) 11.1 Types of Sequences 11.2 Arithmetic Sequences 11.3 Geometric Sequences 11.4 Series and Sigma Notation Homework: P.545 #1~8; Handout
08-03	Quiz (11.1~11.4) 11.5 Sums of Arithmetic and Geometric Series 11.6 Infinite Geometric Series 11.7 Powers of Binomials 11.8 The General Binomial Expansion Homework: P.546 #9~13; Handout	08-05	Test (Chapter 11) 15.5 Fundamental Counting Principles 15.6 Permutations 15.7 Combinations Homework: P.764 #5~8; Handout
08-10	Quiz (15.5~15.7) 15.8 Sample Space and Events 15.9 Probability 15.10 Mutually Exclusive and Independent Events Homework: P.764~765 #9~12; Handout	08-12	Test (15.5~15.10) 9.1 Distance and Midpoint Formulas 9.2 Circles 9.3 Parabolas 9.4 Ellipses 9.5 Hyperbolas 9.6 More on Central Conics Homework: P.451~452 #1~15; Handout