

College Algebra With Trigonometry, 7<sup>th</sup> Edition  
McGraw Hill  
Raymond Barnett, Michael Zeigler, and Karl Byleen  
Table of Contents.

- **Chapter 1: Basic Algebraic Operations**
  - 1.1: Algebra and Real Numbers
  - 1.2: Polynomials: Basic Operations (6)
  - 1.3: Polynomials: Factoring (8)
  - 1.4: Rational Expressions: Basic Operations (6)
  - 1.5: Integer Exponents (6)
  - 1.6: Rational Exponents (7)
  - 1.7: Radicals (8)
  
- **Chapter 2: Equations and Inequalities**
  - 2.1: Linear Equations and Applications (8)
  - 2.2: Systems of Linear Equations and Applications (5)
  - 2.3: Linear Inequalities (5)
  - 2.4: Absolute Value in Equations and Inequalities (4)
  - 2.5: Complex Numbers (4)
  - 2.6: Quadratic Equations and Applications (6)
  - 2.7: Equations Reducible to Quadratic Form (6)
  - 2.8: Polynomial and Rational Inequalities (6)
  
- **Chapter 3: Graphs and Functions**
  - 3.1: Basic Tools; Circles (7)
  - 3.2: Straight Lines (6)
  - 3.3: Functions (10)
  - 3.4: Graphing Functions (8)
  - 3.5: Combining Functions (6)
  - 3.6: Inverse Functions (5)
  
- **Chapter 4: Polynomial and Rational Functions**
  - 4.1: Polynomial Functions and Graphs (4)
  - 4.2: Finding Rational Zeros of Polynomials (7)
  - 4.3: Approximating Real Zeros of Polynomials
  - 4.4: Rational Functions (10)
  - 4.5: Partial Fractions
  
- **Chapter 5: Exponential and Logarithmic Functions**
  - 5.1: Exponential Functions (5)
  - 5.2: The Exponential Function with Base  $e$  (4)
  - 5.3: Logarithmic Functions (11)
  - 5.4: Common and Natural Logarithms
  - 5.5: Exponential and Logarithmic Equations (6)
  
- **Chapter 6: Trigonometric Functions**
  - 6.1: Angles and Their Measure
  - 6.2: Acute Angle Domains
  - 6.3: General Angle and Real Number Domains
  - 6.4: Exact Values for Special Angles and Real Numbers
  - 6.5: Circular Functions
  - 6.6: Graphing Basic Trigonometric Functions
  - 6.7: Graphing  $y = k + A \sin(Bx + C)$  and  $y = k + A \cos(Bx + C)$
  - 6.8: Graphing More General Tangent, Cotangent, Secant, and Cosecant Functions

- 6.9: Inverse Trigonometric Functions
- **Chapter 7: Trigonometric Identities and Conditional Equations**
  - 7.1: Basic Identities and Their Use
  - 7.2: Sum, Difference, and Cofunction Identities
  - 7.3: Double-Angle and Half-Angle Identities
  - 7.4: Product-Sum and Sum-Product Identities
  - 7.5: Trigonometric Equations
- **Chapter 8: Additional Topics in Trigonometry**
  - 8.1: Law of Sines
  - 8.2: Law of Cosines
  - 8.3: Geometric Vectors
  - 8.4: Algebraic Vectors
  - 8.5: Polar Coordinates and Graphs
  - 8.6: Complex Numbers in Rectangular and Polar Forms
  - 8.7: De Moivre's Theorem
- **Chapter 9: Systems of Equations and Inequalities**
  - 9.1: Systems of Linear Equations and Augmented Matrices
  - 9.2: Gauss-Jordan Elimination
  - 9.3: Systems Involving Second-Degree Equations
  - 9.4: Systems of Linear Inequalities in Two Variables
  - 9.5: Linear Programming
- **Chapter 10: Matrices and Determinants**
  - 10.1: Matrices: Basic Operations
  - 10.2: Inverse of a Square Matrix
  - 10.3: Matrix Equations and Systems of Linear Equations
  - 10.4: Determinants
  - 10.5: Properties of Determinants
  - 10.6: Cramer's Rule
- **Chapter 11: Sequences and Series**
  - 11.1: Sequences and Series
  - 11.2: Mathematical Induction
  - 11.3: Arithmetic and Geometric Sequences
  - 11.4: Binomial Formula
  - 11.5: Multiplication Principle, Permutations, and Combinations
- **Chapter 12: Additional Topics in Analytic Geometry**
  - 12.1: Conic Sections; Parabola (4)
  - 12.2: Ellipse (3)
  - 12.3: Hyperbola (3)
  - 12.4: Translation of Axes (4)
  - 12.5: Parametric Equations