

Honors Algebra II Syllabus Semester I

Chapter 1 Data and Linear Representations

- 1.1 Tables and Graphs of Linear Equations
- 1.2 Slopes and Intercepts
- 1.3 Linear Equations in Two Variables
- 1.4 Direct Variation and Proportion
- 1.6 Introduction to Solving Equations
- 1.7 Introduction to Solving Inequalities
- Test

Chapter 2 Numbers and Functions

- 2.1 Operations with Numbers
- 2.2 Properties of Exponents
- 2.3 Introduction to Functions
- 2.4 Operations with Functions
- 2.5 Inverses of Functions
- 2.6 Special Functions
- 2.7 A Preview of Transformations
- Test

Chapter 3 Systems of Linear Equations and Inequalities

- 3.1 Solving Systems by Graphing or Substitution
- 3.2 Solving Systems by Elimination
- 3.3 Linear Inequalities in Two Variables
- 3.4 Systems of Linear Inequalities
- 3.5 Linear Programming
- 3.6 Parametric Equations
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Chapter 4 Matrices

- 4.1 Using Matrices to Represent Data
- 4.2 Matrix Multiplication
- 4.3 The Inverse of a Matrix
- 4.4 Solving Systems with Matrix Equations
- 4.5 Using Matrix Row Operations
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Chapter 5 Quadratic Functions

- 5.1 Introduction to Quadratic Functions
- 5.2 Introduction to Solving Quadratic Equations
- 5.3 Factoring Quadratic Expressions
- 5.4 Completing the Square
- 5.5 The Quadratic Formula
- 5.6 Quadratic Equations and Complex Numbers
- 5.7 Curve Fitting with Quadratic Models
- 5.8 Solving Quadratic Inequalities
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Chapter 6 Exponential and Logarithmic Models

- 6.1 Exponential Growth and Decay
- 6.2 Exponential Functions
- 6.3 Logarithmic Functions
- 6.4 Properties of Logarithmic Functions
- 6.5 Application of Common Logarithms
- 6.6 The Natural Base, e
- 6.7 Solving Equations and Modeling
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Chapter 7 Polynomial Functions

- 7.1 An Introduction to Polynomials
- 7.2 Polynomial Functions and Their Graphs
- 7.3 Products and Factors of Polynomials
- 7.4 Solving Polynomial Equations
- 7.5 Zeros of Polynomial Functions
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Semester Exam