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## Semester 1

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### Term 1

- **Foundations of Functions**
    - Inverse Functions and Compositions of Functions
    - Attributes of Functions
    - Linear Regression
  - **Absolute Value Functions, Equations, and Inequalities**
    - Absolute Value Functions/Transformations
    - Solve Absolute Value Equations/Inequalities
  - **Quadratic Functions**
    - Graphing Quadratic Functions and Transformations
    - Write Quadratic Equations/Key Attributes/Converting Forms
    - Quadratic Regression
  - **Quadratic Equations**
    - Complex numbers and Discriminants
    - Solve Quadratic Equations (Factoring, Sq Rt, Graphing, Completing the Square, Quad Formula)
    - Solve Quadratic Inequalities
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### Term 2

- **System of Equations**
  - Linear and Quadratic Systems
  - Linear Systems in 3 Variables
  - Gaussian Elimination and Matrices
  - Solve Systems of Linear Inequalities
- **Cubic Functions**
  - Graphing Cubic Functions
  - Graphing using End Behavior and Multiplicity
- **Polynomials**
  - Add, Subtract, and Multiply Polynomials
  - Factor Polynomials & Polynomial Division
  - Solving Polynomials
- **Rational Functions**
  - Graphs of Rational Functions
  - Transformations
  - Asymptotes and Domain/Range Restrictions
  - Inverse Variation

## Semester Review and Exam



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## Semester 2

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### Term 3

- **Rational Equations**
    - Simplify Rational Expressions
    - Add, Subtract, Multiply, and Divide Rational Expressions
    - Solve Rational Equations
  - **Radical Functions**
    - Inverses of Quadratic and Cubic Functions
    - Graphing Square Root Functions/Transformations
    - Graphing Cube Root Functions/Transformations
    - Simplifying Radical Expressions and Rational Exponents
    - Solving Radical Equations
  - **Exponential Functions**
    - Geometric Sequences
    - Graphing/Transforming Exponential Functions
    - Writing Exponential Equations
  - **Data**
    - Choosing Appropriate Regression
    - Using Regressions Models
  - **Logarithmic Functions**
    - Evaluating Logs
    - Properties of Logs
    - Graphing/Transforming Logarithmic Functions
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### Term 4

- **Logarithmic & Exponential Functions**
  - Solving Logarithmic and Exponential Equations
  - Writing Equations for Functions from Graphs
- **Conics**
  - Graph & Write Equations of Circles
  - Graph & Write Equations of Ellipses
  - Graph & Write Equations of Parabolas
  - Graph & Write Equations of Hyperbolas
  - Writing Equations from Graphs
- **Preparation for Future Math Courses**

## Semester Review and Exam