

Algebra 2



Student Testimonials

Wil

Kayleigh

Prerequisite Essential Concepts

- Slope & Intercept
- Solving Systems of Linear Equations
- Factoring Quadratics
- Exponent Rules
- Graphing Linear and Quadratic Equations

Program of Studies Key Concepts

- Linear Equations & Functions
 - Standard Form
 - Point-Slope Form
 - Parallel Lines
 - Perpendicular Lines
 - Line of Best Fit
- Systems of Equations
 - Graphical Solutions
 - Linear Programming
 - Matrix Operations
 - Solving System with Matrices
- Special Functions
 - Absolute Value Equations
 - Absolute Value Functions
 - Piecewise Functions
 - Step Functions
- Exponents and Polynomial Factoring
 - Operations
 - Factoring Skills
 - Sum or Difference of Cubes
 - Factoring by Grouping
- Quadratic Functions
 - Simplify Radical Expressions
 - Simplify Complex Numbers
 - Discriminant Properties
 - Complex Roots
 - Vertex Form
 - Quadratic Regressions
- Polynomial Functions
 - End Behavior, Domain
 - Maxima and minima
 - Interval Notation
 - Synthetic Division
 - Fundamental Theorem
- Radical Functions
 - Rational Exponents
 - Solve Radical Equations
 - Transformations, Domain
 - Intercepts
 - Composition of Functions
 - Inverse Functions
- Conics
 - Ellipses, Circles, Hyperbolas
 - Midpoint Formula
 - Systems of Conics
- Rational Functions
 - Direct, Inverse, Joint Variation
 - Graphing Rational Functions
 - Simplify Rational Expressions
 - Operations with Rational Functions
- Exponential Functions
 - Graph Growth and Decay
 - Solve Exponential Equations
 - Simple and Compound Interest
 - Financial Literacy & Investments

Homework Expectations

- 60 minutes per 90 minute class

Basic Supplies

- TI-83 or TI-84 Calculator
- Pencils, Erasers, Paper
- Ruler, Graph Paper

Prerequisite Courses

- Math 8 or Algebra Part 1
- Algebra 1
- Geometry

- Sequences and Series

- Find nth term with Explicit Formula
- Arithmetic & Geometric Series
- Summation Notation
- Sum of Infinite Series