

Learning Standards Algebra 2

Chapter 1- Equations and Inequalities

- I will learn to evaluate and simplify numerical expressions.
- I will learn to evaluate and simplify algebraic expressions.
- I will learn to solve linear and absolute value equations and inequalities.
- I will learn to use algebra to model and solve real-life problems.

Chapter 2 – Linear Equations and Functions

- I will learn to graph ordered pairs, relations, functions, linear equations and inequalities in two variables.
- I will learn to graph absolute value functions.
- I will learn to write equations of lines.
- I will learn to solve real-life problems using graphs and equations.

Chapter 3- Systems of Linear Equations and Inequalities

- I will learn to solve linear systems in two variables by graphing.
- I will learn to solve linear systems by using algebraic methods.
- I will learn to write and use linear systems to solve real-life problems.

Chapter 4- Matrices and Determinants

- I will learn to add, subtract, and multiply matrices.
- I will learn to evaluate determinants.
- I will learn to solve linear systems using Cramer's rule.
- I will learn to solve linear systems using inverse matrices.

Chapter 4.5 - Factoring

- I will learn to factor out a greatest common factor.
- I will learn to factor a difference of two squares.
- I will learn to factor a trinomial with and without a leading coefficient.
- I will learn to factor a sum and difference of two cubes.

Chapter 5- Quadratic Functions

- I will learn to solve quadratic equations by factoring.
- I will learn to solve quadratic equations by finding square roots.
- I will learn to solve quadratic equations by completing the square.
- I will learn to solve quadratic equations by using the quadratic formula.
- I will learn to graph quadratic functions and inequalities.
- I will learn properties of complex numbers and learn to apply them.

Chapter 6- Polynomials and Polynomial Functions

- ❑ I will learn to perform operations on polynomials.
- ❑ I will learn to solve polynomial equations.
- ❑ I will learn to evaluate, graph, and find zeros of polynomial functions.

Chapter 7 - Powers, Roots, and Radicals

- ❑ I will learn to use rational exponents and n th roots of numbers.
- ❑ I will learn to perform operations with and find inverses of functions.
- ❑ I will learn to graph radical functions.
- ❑ I will learn to solve radical equations.

Chapter 8 – Exponential and Logarithmic Functions

- ❑ I will learn to graph and use exponential and logarithmic functions.
- ❑ I will learn to use the number e .
- ❑ I will learn to use the definition and properties of logarithms.
- ❑ I will learn to solve exponential and logarithmic equations.

Chapter 9 – Rational Equations and Functions

- ❑ I will learn to simplify and perform operations with rational expressions.
- ❑ I will learn to graph rational functions.
- ❑ I will learn to solve rational equations.

Chapter 10 – Quadratic Relations and Conic Sections

- ❑ I will learn to use the distance and midpoint formulas.
- ❑ I will learn to graph and write equations of conics.
- ❑ I will learn to classify conics.