Algebra 1 Topics

Unit 1: Data and Statistics

- Measure of Center (review) solve for x for average.
- Box Plot, Histogram, Dot Plot
- Shape of data and how that affects measures of center.
- Shape of data and how affects variability

Unit 2: Functions

- Definition of a Function (VLT) (8th grade standard)
- Multi-Step Equations (Distributive Property/Variables on both sides) (8th grade standard)
- Clearing Fractions
- Multi-Step Inequalities (Interval Notation)
- Compound Inequalities
- Representations of Functions
- Function Notation
- Equations/ Graphing with Tables
- Domain and Range (Inequalities and Interval notation)

Unit 3: Linear Functions

- Literal Equations
- Slope-Int. (8th grade skill)
- Vertical and horizontal lines (8th grade skill)
- Linear Models
    - Interpret slope and intercept in context.
    - Scatter Plots
- Graphing with 3 Forms
    - Slope-Int Review
    - Standard (intercept graphing)
    - Point Slope
- Parallel and Perpendicular Lines

Unit 4: Intro to Quadratics

- Standard Form
- Vertex Form
- Factored Form
- Projectile Motion/ Maximum Area/ Revenue

Unit 5: Solving Quadratics

- Solving Quadratics (Converting from one form to another)
    - Factoring (GCF, Quadratic Trinomial, factoring with a term, Difference of Two Squares)
    - Solving Square Roots
    - Quadratic Formula

Unit 6: Systems

- Special Cases (no solution, same line)
- Graphing (8th graph standard)
- Substitution (8th grade standard)
- Elimination
- Word Problems

Unit 7: Exponents and Exponential Functions

- Review exponent rules
- Exponential Growth and Decay
- Percent growth and decay (half-life)
- Compound Interest (if time)