Math 1

Solving Equations and Inequalities: distributive property, multi-step equations, Variables on both sides, literal equations and formulas, ratios rates conversions, solving proportions, solving multi step inequalities, compound inequalities, absolute value equations and inequalities

An Introduction to functions: graphs to relate two variables, patterns and linear functions, patterns and nonlinear functions, writing a function rule, formalizing relations and function (skip section on arithmetic sequences)

Linear Functions: rate of change and slope, direct variation, slope intercept form, point-slope form, standard form, parallel and perpendicular lines, graphing absolute value equations

Solving Systems of linear equations and inequalities: solve by graphing, substitution, elimination, applications, graphing linear inequalities, solving systems of linear inequalities

Exponential and Radical Functions: exponent rules, exponential functions, comparing exponential and linear, growth vs. decay, solving exponential equations (like bases and graphing), combining functions, graphing radical functions, graphing piecewise functions. (skip section on geometric sequences)

Data Analysis: Frequency and histograms, measures of central tendency and Dispersion: Mean Absolute deviation and Standard deviation, Box and Whisker plots, Scatter plots and trend lines (using residuals), Two-Way frequency tables

Tools of Geometry: Nets and Drawings, points, lines, planes, measuring segments and angles, exploring angle pairs, midpoint and distance formulas.

Transformations: Translations, Reflections, Rotations, Composition of Isometries

Connecting Algebra and Geometry: Perimeter and Area in the coordinate plane, Areas of parallelograms, triangles, trapezoids, rhombuses, kites, Polygons in coordinate plane

Reasoning and Proof: Basic constructions, Patterns and inductive reasoning, Conditional statements, Biconditional statements, DeductiveReasoning, Reasoning in Algebra and Geometry, Proving Angles Congruent.