Concepts	Competencies	Vocabulary
Properties of Rational and Irrational Numbers	Apply and extend the properties of exponents to solve the problems with rational exponents

Represent and/or use numbers in equivalent forms (integers, fractions, decimals, percent's, square roots, exponents).

Apply properties of rational and irrational numbers to solve real world or mathematical problems
CC.2.1.HS.F.1
CC.2.1.HS.F.2 | Absolute Value
Additive Inverse
 Arithmetic Sequence*
Asymptote*
Binomial
Bar Graph*
Box-and-Whisker Plot*
Circle Graph*
Coefficient
Composite Number*
Compound Event |
| **The Real Number System** | Apply and extend the properties of exponents to solve problems with rational exponents

Apply number theory concepts to show relationships between real numbers in problem-solving settings.

Use exponents, roots, and/or absolute values to solve problems.

Use estimation strategies in problem-solving situations.
CC.2.1.HS.F.1
CC.2.1.HS.F.2
CC.2.1.HS.F.3 | Constant
Coordinate Plane*
Degree (of polynomial)
Dependent Events
Dependent Variable
Domain (of Relation or Function)
Elimination Method
Estimation Strategy
Exponent*
Expression*
Factor (verb)
Factor a Monomial
Factor a Polynomial
Function
Independent Events |
| **Equations and Inequalities** | Interpret solutions to linear equations and inequalities.

Interpret solutions to linear systems of equations and inequalities.

Evaluate reasonability of solutions.
CC.2.1.HS.F.3
CC.2.1.HS.F.4
CC.2.1.HS.F.5 | Independent Variable*
Interquartile Range
Inverse (of a Relation)
Irrational Number
Like Terms
Line of Best Fit
Linear Combination
Linear Equation
Linear Function
Linear Inequality |
| **Polynomial and Rational Expressions** | Simplify/factor expressions involving polynomials.

Apply and extend previous understandings of arithmetic to algebraic expressions.

Use polynomial identities.

Perform arithmetic operations on polynomials.

 CC.2.2.HS.D1
CC.2.2.HS.D2
CC.2.2.HS.D3 | Mapping
Maximum Value (of a Graph)
Measure of Central Tendencies
Measure of Dispersion
Minimum Value
Monomial
Multiplicative Inverse
Negative Exponent*
Odds
Outlier
Point-Slope Form
Polynomial |

Concepts	Competencies	Vocabulary
	CC.2.2.HS.D5 CC.2.2.HS.D6	Polynomial Function Positive Exponents*
Equations and Inequalities	Write, solve, and/or graph linear equations and inequalities using various methods. Write, solve, and/or graph systems of linear equations and inequalities using various methods. Use and/or identify algebraic properties. CC.2.2.HS.C.1 CC.2.2.HS.C.2 CC.2.2.HS.C.3	Power* Power of a Power Powers of Products Probability* Probability of Compound Events Quadratic Equation Quartile Radical Expression Range (of a Function or Relation)
Equations and Inequalities	Write, solve, and/or graph compound inequalities. Write and/or identify linear equations in various forms (slope-intercept, point-slope, standard, etc.). Understand and apply the Pythagorean Theorem. Describe, compute, and/or use linear rate of change (slope). CC.2.2.HS.C3 CC.2.2.HS.C5 CC.2.2.HS.D7 CC.2.2.HS.D9 CC.2.2.HS.D10	Rate* Rate (of Change) Ratio Rational Expression Relation Rise* Run* Scatterplot Simple Event Simplest form (of an Expression) Slope (of a Line) Slope-Intercept Form Standard Form (of a Linear
Patterns, Relations and Functions	Define, evaluate, and compare functions. Use the concept and notation of function to interpret and apply them in terms of their context. Create a function and/or sequence that model relationships between two quantities. Create and/or analyze functions using multiple representations (graph, table, and equation). Create new functions from existing functions (transformations of graphs). Construct and compare linear, quadratic, and exponential models and solve problems. CC.2.2.HS.C1 CC.2.2.HS.C2 CC.2.2.HS.C3 CC.2.2.HS.C4 CC.2.2.HS.C6	Equation) Stem-and-Leaf Plot Substitution Substitution Method Systems of Linear Equations Systems of Linear Inequalities Term Trinomial Unit Rate Variable x-intercept y-intercept * – May not be Tier 3 in Algebra 1

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Concepts	Competencies	Vocabulary
Categorical and Quantitative Data	Analyze a set of data for a pattern, and represent the pattern with an algebraic rule and/or a graph. Summarize, represent, and interpret single-variable data and two-variable data. Use measures of dispersion to describe a set of data (range, quartiles, interquartile range). Analyze and/or interpret data displays and/or use them to make predictions (circle graph, line graph, bar graph, box-and-whisker plot, stem-and-leaf plot, scatter plot). Make inferences and justify conclusions based on sample surveys, experiments, and observational studies CC.2.4.HS.B.1 CC.2.4.HS.B.2 CC.2.4.HS.B.3 CC.2.4.HS.B.5	
Probability	Calculate and/or make predictions based upon measures of central tendency. Apply probability to practical situations, including compound events. Recognize and evaluate random processes underlying statistical experiments Apply the rules of probability to compute probabilities of compound events in a uniform probability model CC.2.4.HS.B.4 CC.2.4.HS.B.7	