

GRADE LEVEL: HIGH SCHOOL

SUBJECT: ALGEBRA 1

DATE: 2021 – 2022

GRADING PERIOD: QUARTER 1

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• FUNCTION</li> <li>• DOMAIN</li> <li>• RANGE</li> </ul>	<p><b>AI.F.1</b> : Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. Understand that if <math>f</math> is a function and <math>x</math> is an element of its domain, then <math>f(x)</math> denotes the output of <math>f</math> corresponding to the input <math>x</math>. Understand the graph of <math>f</math> is the graph of the equation <math>y = f(x)</math> with points of the form <math>(x, f(x))</math>.</p>	<ul style="list-style-type: none"> <li>• Explain and give examples of functions.</li> <li>• Identify whether relations are functions and explain the reasoning.</li> <li>• State the domain and range of a function.</li> <li>• Generate a list of values for a given function and graph the function.</li> <li>• Make explicit use of definitions.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Function</li> <li>• Domain</li> <li>• Range</li> <li>• Input</li> <li>• Output</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• FUNCTION NOTATION</li> </ul>	<p><b>AI.F.2</b> : Evaluate functions for given elements of its domain, and interpret statements in function notation in terms of a context.</p>	<ul style="list-style-type: none"> <li>• Evaluate functions given in function notation for different values of the domain.</li> <li>• Interpret statements that use function notation in terms of real-life problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL
<ul style="list-style-type: none"> <li>• DOMAIN</li> <li>• RANGE</li> </ul>	<p><b>AI.F.3</b> : Identify the domain and range of relations represented in tables, graphs, verbal descriptions, and equations.</p>	<ul style="list-style-type: none"> <li>• Identify the domain and range of a relation given in different forms (ex. tables, graphs, verbal descriptions, and equations).</li> <li>• Use diagrams, two-way tables, graphs, flowcharts, formulas to map relationships between quantities.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Relation</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>LINEAR EQUATIONS, INEQUALITIES, AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• REAL-WORLD PROBLEMS</li> </ul>	<p><b>AI.L.1</b> : Represent real-world problems using linear equations and inequalities in one variable, including those with rational number coefficients and variables on both sides of the equal sign. Solve them fluently, explaining the process used and justifying the choice of a solution method.</p>	<ul style="list-style-type: none"> <li>• Solve real-world problems using linear equations and inequalities in one variable.</li> <li>• Determine if solutions are reasonable.</li> </ul>	<ul style="list-style-type: none"> <li>• Class Presentations</li> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL
<ul style="list-style-type: none"> <li>• COMPOUND LINEAR INEQUALITIES</li> </ul>	<p><b>AI.L.2</b> : Solve compound linear inequalities in one variable, and represent and interpret the solution on a number line. Write a compound linear inequality given its number line representation.</p>	<ul style="list-style-type: none"> <li>• Solve compound linear inequalities in one variable.</li> <li>• Represent solutions on a number line.</li> <li>• Represent situation symbolically.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Compound Inequalities</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• FORMULAS</li> </ul>	<p><b>AI.L.7</b> : Solve linear and quadratic equations and formulas for a specified variable to highlight a quantity of interest, using the same reasoning as in solving equations.</p>	<ul style="list-style-type: none"> <li>• Solve equations and formulas for a specific variable.</li> <li>• Solve equations with coefficients represented by variables.</li> <li>• Students apply what they already know.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL

GRADE LEVEL: HIGH SCHOOL

SUBJECT: ALGEBRA 1

DATE: 2021 – 2022

GRADING PERIOD: QUARTER 2

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• FUNCTION RELATIONSHIPS</li> <li>• GRAPHS OF FUNCTIONS</li> <li>• QUALITATIVE DESCRIPTIONS</li> <li>• INDEPENDENT AND DEPENDENT VARIABLES</li> </ul>	<p><b>AI.F.4</b> : Describe, qualitatively, the functional relationship between two quantities by analyzing key features of a graph. Sketch a graph that exhibits given key features of a function that has been verbally described, including intercepts, where the function is increasing or decreasing, where the function is positive or negative, and any relative maximum or minimum values, Identify the independent and dependent variables.</p>	<ul style="list-style-type: none"> <li>• Identify graphs of functions that represent varying rates of change.</li> <li>• Identify independent and dependent variables in real-life situations.</li> <li>• Sketch graphs of real-life applications of functions.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative variables</li> <li>• Independent variables</li> <li>• Dependent variables</li> </ul>	CRITICAL
<b>LINEAR EQUATIONS, INEQUALITIES, AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• COMPOUND LINEAR INEQUALITIES</li> </ul>	<p><b>AI.L.2</b> : Solve compound linear inequalities in one variable, and represent and interpret the solution on a number line. Write a compound linear inequality given its number line representation.</p>	<ul style="list-style-type: none"> <li>• Solve compound linear inequalities in one variable.</li> <li>• Represent solutions on a number line.</li> <li>• Represent situation symbolically.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Compound Inequalities</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>LINEAR EQUATIONS, INEQUALITIES, AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• LINEAR FUNCTIONS</li> <li>• EQUATIONS</li> <li>• TABLES</li> <li>• GRAPHS</li> </ul>	<p><b>AI.L.3:</b> Represent linear functions as graphs from equations (with and without technology), equations from graphs, and equations from tables and other given information (e.g., from a given point on a line and the slope of the line). Find the equation of a line, passing through a given point, that is parallel or perpendicular to a given line.</p>	<ul style="list-style-type: none"> <li>• Write an equation of a line that passes through two points.</li> <li>• Write an equation of a line given the slope and a point on the line.</li> <li>• Graph a linear equation given in different forms (with and without technology).</li> <li>• Identify correspondence between approaches to solve problems.</li> <li>• Use technology for representation, reasoning, communication and problem solving.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Slope</li> <li>• Equation of a line</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• REAL-WORLD PROBLEMS</li> <li>• LINEAR FUNCTIONS</li> <li>• EQUATIONS, GRAPHS AND TABLES</li> </ul>	<p><b>AI.L.4 :</b> Represent real-world problems that can be modeled with a linear function using equations, graphs, and tables; translate fluently among these representations, and interpret the slope and intercepts.</p>	<ul style="list-style-type: none"> <li>• Write a linear equation representing a real-world problem.</li> <li>• Define the variables, graph the equation, determine intercepts and slope.</li> <li>• Solve problems arising in everyday life.</li> <li>• Write equations to describe a situation.</li> <li>• Analyze a problem in the community.</li> <li>• Students apply what they know.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• X-intercept</li> <li>• Y-intercept</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>LINEAR EQUATIONS, INEQUALITIES, AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• SLOPE-INTERCEPT FORM</li> <li>• POINT-SLOPE FORM</li> <li>• STANDARD FORM</li> </ul>	<b>AI.L.5</b> : Translate among equivalent forms of equations for linear functions, including slope-intercept, point-slope, and standard. Recognize that different forms reveal more or less information about a given situation.	<ul style="list-style-type: none"> <li>• Write equations in slope-intercept form.</li> <li>• Write equations in point-slope form.</li> <li>• Write equations in standard form.</li> <li>• Describe how the different forms of a linear equation reveal more or less information about a given situation.</li> <li>• Compare relationships.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Slope-intercept form</li> <li>• Point-slope form</li> <li>• Standard form</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• LINEAR INEQUALITIES IN TWO VARIABLES</li> <li>• SOLVE REAL WORLD PROBLEMS</li> </ul>	<b>AI.L.6</b> : Represent real-world problems using linear inequalities in two variables and solve such problems; interpret the solution set and determine whether it is reasonable. Graph the solutions to a linear inequality in two variables as a half-plane.	<ul style="list-style-type: none"> <li>• Solve and interpret solutions of linear inequalities in two variables.</li> <li>• Graph systems of linear inequalities with and without technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>		CRITICAL
<b>SYSTEMS OF EQUATIONS AND INEQUALITIES</b>					
<ul style="list-style-type: none"> <li>• GRAPHS OF PAIRS OF LINEAR EQUATIONS</li> </ul>	<b>AI.SEI.1</b> : Understand the relationship between a solution of a system of two linear equations in two variables and the graphs of the corresponding lines. Solve pairs of linear equations in two variables by graphing; approximate solutions when the coordinates of the solution are non-integer numbers.	<ul style="list-style-type: none"> <li>• Determine the solution of a system of two linear equations by graphing.</li> <li>• Approximate non-integer solutions to systems of linear equation by graphing.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Systems of linear equations</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>SYSTEMS OF EQUATIONS AND INEQUALITIES</b>					
<ul style="list-style-type: none"> <li>• SUBSTITUTION METHOD</li> <li>• ELIMINATION METHOD</li> <li>• INFINITELY MANY SOLUTIONS</li> <li>• NO SOLUTIONS</li> </ul>	<p><b>AI.SEI.2:</b> Verify that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions, including cases with no solution and infinitely many solutions. Solve systems of two linear equations algebraically using elimination and substitution methods.</p>	<ul style="list-style-type: none"> <li>• Determine the solution of a system of two linear equations by substitution.</li> <li>• Determine the solution of a system of two linear equations by elimination.</li> <li>• Check answers using a different method.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Substitution method</li> <li>• Elimination method</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• REAL-WORLD PROBLEMS</li> </ul>	<p><b>AI.SEI.3 :</b> Write a system of two linear equations in two variables that represents a real-world problem and solve the problem with and without technology. Interpret the solution and determine whether the solution is reasonable.</p>	<ul style="list-style-type: none"> <li>• Use a system of equations in two variables to solve real-world problems.</li> <li>• Explain the solution in context of the problem and discuss whether it is reasonable or not.</li> <li>• Solve problems arising in everyday life.</li> <li>• Write equations to describe a situation.</li> <li>• Analyze a problem in the community.</li> <li>• Students apply what they know.</li> <li>• Solve problems using representations.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL

GRADE LEVEL: HIGH SCHOOL

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GRADING PERIOD: QUARTER 3

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>NUMBER SYSTEMS AND EXPRESSIONS</b>					
<ul style="list-style-type: none"> <li>• IMAGINARY NUMBERS</li> <li>• COMPLEX NUMBERS</li> </ul>	<b>AI.NE.1:</b> Explain the hierarchy and relationships of numbers and sets of numbers within the complex number system. Know that there is an imaginary number, $i$ , such that $i^2 = -1$ . Understand that the imaginary numbers along with the real numbers form the complex number system.	<ul style="list-style-type: none"> <li>• Define the Imaginary unit.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Imaginary numbers</li> <li>• Complex Numbers</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• ALGEBRAIC RATIONAL EXPRESSIONS</li> </ul>	<b>AI.NE.2:</b> Simplify algebraic rational expressions, with numerators and denominators containing monomial bases with integer exponents, to equivalent forms.	<ul style="list-style-type: none"> <li>• Simplify fractions involving monomial numerators and denominators with both positive and negative exponents.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Algebraic rational expressions</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• SQUARE ROOTS OF NON-PERFECT SQUARE INTEGERS AND MONOMIALS</li> </ul>	<b>AI.NE.3:</b> Simplify square roots of monomial algebraic expressions, including non-perfect squares.	<ul style="list-style-type: none"> <li>• Simplify square roots of non-perfect square monomial expressions.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Monomial</li> <li>• Non-Perfect Square</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• POLYNOMIALS</li> <li>• DIFFERENCE OF TWO SQUARES</li> <li>• PERFECT SQUARE TRINOMIALS</li> </ul>	<b>AI.NE.4:</b> Factor quadratic expressions (including the difference of two squares, perfect square trinomials and other quadratic expressions).	<ul style="list-style-type: none"> <li>• Factor polynomial expressions using greatest common factors, grouping and special factoring patterns (difference of squares).</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Polynomials</li> <li>• Factoring</li> <li>• Difference of two squares</li> <li>• Perfect square trinomials</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>NUMBER SYSTEMS AND EXPRESSIONS</b>					
<ul style="list-style-type: none"> <li>• COMPUTE WITH POLYNOMIALS</li> </ul>	<b>AI.NE.5:</b> Add, subtract, and multiply polynomials. Divide polynomials by monomials.	<ul style="list-style-type: none"> <li>• Add, subtract, multiply and divide polynomial expressions.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>		CRITICAL
<b>SYSTEMS OF LINEAR EQUATIONS AND INEQUALITIES</b>					
<ul style="list-style-type: none"> <li>• SYSTEMS OF TWO LINEAR INEQUALITIES</li> </ul>	<b>AI.SEI.4:</b> Represent real-world problems using a system of two linear inequalities in two variables. Graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes with and without technology. Interpret the solution set and determine whether it is reasonable.	<ul style="list-style-type: none"> <li>• Solve and interpret solutions of linear inequalities in two variables.</li> <li>• Graph systems of linear inequalities with and without technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignment</li> <li>• Quiz/Test</li> </ul>		CRITICAL

GRADE LEVEL: HIGH SCHOOL

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GRADING PERIOD: QUARTER 4

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CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>DATA ANALYSIS AND STATISTICS</b>					
<ul style="list-style-type: none"> <li>RANDOM SAMPLING</li> </ul>	<b>AI.DS.1</b> : Understand statistics as a process for making inferences about a population based on a random sample from that population. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.	<ul style="list-style-type: none"> <li>Recognize differences between sample surveys, experiments, and observational studies.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher observation</li> <li>Daily assignments</li> <li>Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>Random sampling</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>MISLEADING DATA</li> </ul>	<b>AI.DS.2</b> : Understand that statistics and data are non-neutral and designed to serve a particular interest. Analyze the possibilities for whose interest might be served and how the representations might be misleading.	<ul style="list-style-type: none"> <li>Analyze claims made from data collection that may lead to misleading results.</li> <li>Explain why the claims are misleading and whose interest is being served.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher observation</li> <li>Daily assignments</li> <li>Quiz/Test</li> </ul>		CRITICAL
<ul style="list-style-type: none"> <li>LINEAR FUNCTIONS</li> <li>REGRESSION EQUATIONS (PREDICTION EQUATIONS)</li> <li>SLOPE AND Y-INTERCEPT</li> </ul>	<b>AI.DS.3:</b> Use technology to find a linear function that models a relationship between two quantitative variables to make predictions, and interpret the slope and y-intercept. Using technology, compute and interpret the correlation coefficient.	<ul style="list-style-type: none"> <li>Given a set of data, use a graphing calculator to find a line of regression and state the meaning of the slopes and intercepts.</li> <li>Compute the correlation coefficient.</li> <li>Describe the relationship that exists between the two variables.</li> </ul>	<ul style="list-style-type: none"> <li>Teacher observation</li> <li>Daily assignments</li> <li>Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>Linear regression</li> <li>Correlation coefficient</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>DATA ANALYSIS AND STATISTICS</b>					
<ul style="list-style-type: none"> <li>• CORRELATION</li> <li>• CAUSATION</li> </ul>	<p><b>AI.DS.4</b> : Describe the differences between correlation and causation.</p>	<ul style="list-style-type: none"> <li>• Make decisions about the validity of conclusions based on correlation and/or causation of two variables.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Causation</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• FREQUENCIES</li> <li>• RELATIVE FREQUENCIES</li> <li>• TWO-WAY TABLES</li> <li>• JOINT, MARGINAL AND RELATIVE FREQUENCIES</li> </ul>	<p><b>AI.DS.5</b> : Summarize bivariate categorical data in two-way frequency tables. Interpret relative frequencies in the contexts of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in data.</p>	<ul style="list-style-type: none"> <li>• Construct table on two categorical variables collected from the same subjects. ( EX. Age vs. height)</li> <li>• Interpret and summarize data.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Frequency</li> <li>• Relative frequency</li> <li>• Relative joint frequency</li> <li>• Relative marginal frequency</li> <li>• Conditional relative frequency</li> </ul>	CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>QUADRATIC AND EXPONENTIAL EQUATIONS AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• LINEAR FUNCTIONS</li> <li>• EXPONENTIAL FUNCTIONS</li> </ul>	<p><b>AI.QE.1:</b> Distinguish between situations that can be modeled with linear functions and with exponential functions. Understand that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. Compare linear functions and exponential functions that model real-world situations using tables, graphs, and equations.</p>	<ul style="list-style-type: none"> <li>• Differentiate between situations that can be modeled with linear functions and exponential functions.</li> <li>• Determine if a given set of data represented by a graph or equation represents linear or exponential growth.</li> <li>• Determine if a data set in a table represents a linear function (grow by equal differences over equal intervals), or an exponential function (grow by equal factors over equal intervals).</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Exponential Functions</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• EXPONENTIAL MODELS OF REAL-WORLD SITUATIONS</li> </ul>	<p><b>AI.QE.2:</b> Represent real-world and other mathematical problems that can be modeled with simple exponential functions using tables, graphs, and equations of the form <math>y = ab^x</math> (for integer values of <math>x &gt; 1</math>, rational values of <math>b &gt; 0</math> and <math>b \neq 1</math>) with and without technology; interpret the values of <math>a</math> and <math>b</math>.</p>	<ul style="list-style-type: none"> <li>• Use tables, graphs and equations of the form <math>y = ab^x</math> to represent exponential functions.</li> <li>• Define what the variables in an exponential equation represent.</li> <li>• Write exponential equations to model real-world problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL
<ul style="list-style-type: none"> <li>• COMPLETING THE SQUARE MODELS TO SOLVE QUADRATICS</li> </ul>	<p><b>AI.QE.3:</b> Use area models to develop the concept of completing the square to solve quadratic equations. Explore the relationship between completing the square and the quadratic formula.</p>	<ul style="list-style-type: none"> <li>• Explore relationship between completing the square and quadratic formula</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Complete the square</li> <li>• Quadratic</li> </ul>	CRITICAL

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<b>QUADRATIC AND EXPONENTIAL EQUATIONS AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• SOLVE QUADRATIC EQUATIONS</li> </ul>	<p><b>AI.QE.4:</b> Solve quadratic equations in one variable by inspection (e.g., for <math>x^2 = 49</math>), finding square roots, using the quadratic formula, and factoring, as appropriate to the initial form of the equation.</p>	<ul style="list-style-type: none"> <li>• Solve quadratic equations by:               <ul style="list-style-type: none"> <li>– Factoring</li> <li>– Finding square roots</li> <li>– Using the quadratic formula</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>	<ul style="list-style-type: none"> <li>• Quadratic Formula</li> </ul>	CRITICAL
<ul style="list-style-type: none"> <li>• SOLVE REAL-WORLD PROBLEMS INVOLVING QUADRATIC EQUATIONS</li> </ul>	<p><b>AI.QE.5:</b> Represent real-world problems using quadratic equations in one or two variables and solve such problems with technology. Interpret the solution(s) and determine whether they are reasonable.</p>	<ul style="list-style-type: none"> <li>• Solve real-world problems using quadratic equations.</li> <li>• Explain if the solution is reasonable to the application.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL
<ul style="list-style-type: none"> <li>• GRAPH EXPONENTIAL FUNCTIONS.</li> <li>• GRAPH QUADRATIC FUNCTIONS.</li> <li>• ZEROS OF QUADRATIC FUNCTIONS</li> <li>• LINES OF SYMMETRY</li> <li>• EXTREME VALUES</li> </ul>	<p><b>AI.QE.6:</b> Graph exponential and quadratic functions with and without technology. Identify and describe key features, such as zeros, lines of symmetry, and extreme values in real-world and other mathematical problems involving quadratic functions with and without technology; interpret the results in the real-world contexts.</p>	<ul style="list-style-type: none"> <li>• Graph exponential and quadratic functions</li> <li>• Determine the zeros, line of symmetry, maximum and/or minimum values for a quadratic function.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL

CONTENT	STANDARD INDICATORS	SKILLS	ASSESSMENT	VOCABULARY	PRIORITY
<b>QUADRATIC AND EXPONENTIAL EQUATIONS AND FUNCTIONS</b>					
<ul style="list-style-type: none"> <li>• RELATIONSHIPS BETWEEN SOLUTIONS OF QUADRATIC EQUATIONS</li> </ul>	<p><b>AI.QE.7:</b> Describe the relationships among a solution of a quadratic equation, a zero of the function, an x-intercept of the graph, and the factors of the expression. Explain that every quadratic has two complex solutions, which may or may not be real solutions.</p>	<ul style="list-style-type: none"> <li>• Given the solutions to a quadratic equation, describe the relationship between the zeros, the factors, the graph and the equation itself.</li> </ul>	<ul style="list-style-type: none"> <li>• Teacher observation</li> <li>• Daily assignments</li> <li>• Quiz/Test</li> </ul>		CRITICAL