

Unit	Lesson & Standards Addressed
Expressions and Equations	<p>Solving Equations with the Distributive Property Al.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p>Solving Equations with the Distributive Property in Context Al.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p>Solving Equations with the Variable on Both Sides Al.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p>Interpreting Slope Al.3.A determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$ Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p> <p>Slope Al.3.A determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$ Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p>
Functions	<p>Slope-Intercept Form Al.2.B write linear equations in two variables in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$, given one point and the slope and given two points Al.3.A determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$ Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p> <p>Point-Slope Form Al.2.B write linear equations in two variables in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$, given one point and the slope and given two points Al.3.A determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$ Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p>
Mixed Review Lessons	<p>STAAR Algebra I: Review 1 (no pre-quiz) Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems Al.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p>
Creating Equations	<p>Writing and Solving Linear Equations in One Variable Al.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p>Writing and Graphing Linear Equations in Two or More Variables Al.2.C write linear equations in two variables given a table of values, a graph, and a verbal description</p>
Building Functions	<p>Sketching Graphs of Linear Functions from Symbolic Representations Al.3.C graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems</p>

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Reasoning with Equations and Inequalities	<p>Solving Systems of Linear Equations AI.2.I write systems of two linear equations given a table of values, a graph, and a verbal description AI.5.C solve systems of two linear equations with two variables for mathematical and real-world problems</p> <p>Graphing Linear Inequalities and Systems of Linear Inequalities in Real-World Situations AI.2.H write linear inequalities in two variables given a table of values, a graph, and a verbal description AI.3.D graph the solution set of linear inequalities in two variables on the coordinate plane AI.3.H graph the solution set of systems of two linear inequalities in two variables on the coordinate plane</p>
Mixed Review Lessons	<p>STAAR Algebra I: Review 2 (no pre-quiz) AI.2.C write linear equations in two variables given a table of values, a graph, and a verbal description AI.2.I write systems of two linear equations given a table of values, a graph, and a verbal description AI.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems AI.3.D graph the solution set of linear inequalities in two variables on the coordinate plane AI.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides AI.5.C solve systems of two linear equations with two variables for mathematical and real-world problems AI.9.C write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay AI.9.D graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems</p>
Interpreting Functions	<p>Understanding the Domain of a Function AI.2.A determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities AI.9.A determine the domain and range of exponential functions of the form $f(x) = ab^x$ and represent the domain and range using inequalities</p>
The Real Number System	<p>Using Rational Exponents to Rewrite Expressions AI.11.B simplify numeric and algebraic expressions using the laws of exponents, including integral and rational exponents</p>
Expressions and Equations	<p>Factoring Expressions AI.10.D rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property AI.10.E factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two</p>
Seeing Structure in Expressions	<p>Factoring Quadratic Expressions AI.7.B describe the relationship between the linear factors of quadratic expressions and the zeros of their associated quadratic functions AI.8.A solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula AI.10.E factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two AI.10.F decide if a binomial can be written as the difference of two squares and, if possible, use the structure of a difference of two squares to rewrite the binomial</p>

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Interpreting Functions	<p>Sketching Graphs of Quadratic Functions in Context AI.6.A determine the domain and range of quadratic functions and represent the domain and range using inequalities AI.7.A graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry</p> <p>Sketching and Transforming Graphs of Quadratic Functions from Symbolic Representations AI.6.A determine the domain and range of quadratic functions and represent the domain and range using inequalities AI.7.A graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry</p>
Reasoning with Equations and Inequalities	<p>Solving Quadratics - Completing the Square AI.8.A solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula</p>
Reasoning with Equations and Inequalities	<p>Problem Solving with Quadratic Functions AI.8.A solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula AI.11.A simplify numerical radical expressions involving square roots</p> <p>Using the Quadratic Formula AI.8.A solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula</p>
Mixed Review Lessons	<p>STAAR Algebra I: Review 5 (no pre-quiz)</p> <p>AI.2.A determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities</p> <p>AI.2.C write linear equations in two variables given a table of values, a graph, and a verbal description</p> <p>AI.2.I write systems of two linear equations given a table of values, a graph, and a verbal description</p> <p>AI.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p> <p>AI.3.C graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems</p> <p>AI.3.D graph the solution set of linear inequalities in two variables on the coordinate plane</p> <p>AI.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p>AI.5.C solve systems of two linear equations with two variables for mathematical and real-world problems</p> <p>AI.6.A determine the domain and range of quadratic functions and represent the domain and range using inequalities</p> <p>AI.7.A graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x-intercept, y-intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry</p> <p>AI.8.A solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula</p> <p>AI.9.C write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay</p> <p>AI.9.D graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems</p> <p>AI.10.E factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two</p>

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Interpreting Functions	<p>Sketching Graphs of Linear and Exponential Functions from a Context</p> <p>Al.3.C graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems</p> <p>Al.9.D graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems</p>
Creating Equations	<p>Modeling Exponential Relationships with Equations, Inequalities, and Graphs</p> <p>Al.9.C write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay</p> <p>Al.9.D graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems</p>
Interpreting Functions	<p>Rate of Change for Linear and Exponential Functions</p> <p>Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p>
Building Functions	<p>Writing Linear and Exponential Functions from a Context</p> <p>Al.2.C write linear equations in two variables given a table of values, a graph, and a verbal description</p> <p>Al.9.C write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay</p>
Linear, Quadratic, and Exponential Models	<p>Writing Linear and Exponential Functions Based on Different Representations</p> <p>Al.2.C write linear equations in two variables given a table of values, a graph, and a verbal description</p> <p>Al.9.C write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay</p>
Mixed Review Lessons	<p>STAAR Algebra I: Review 3 (no pre-quiz)</p> <p>Al.2.A determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities</p> <p>Al.2.C write linear equations in two variables given a table of values, a graph, and a verbal description</p> <p>Al.2.I write systems of two linear equations given a table of values, a graph, and a verbal description</p> <p>Al.3.B calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems</p> <p>Al.3.C graph linear functions on the coordinate plane and identify key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems</p> <p>Al.3.D graph the solution set of linear inequalities in two variables on the coordinate plane</p> <p>Al.5.A solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p>Al.5.C solve systems of two linear equations with two variables for mathematical and real-world problems</p> <p>Al.9.C write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay</p> <p>Al.9.D graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems</p>