

Current TEKS	Proposed TEKS
	<p>(a) General requirements.</p> <p>Students shall be awarded one credit for successful completion of this course. This course is recommended for students in Grades 8 or 9. Prerequisite: Mathematics, Grade 8 or its equivalent.</p>
	<p>(b) Introduction.</p> <p>(1) The desire to achieve educational excellence is the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on fluency and solid understanding, Texas will lead the way in mathematics education and prepare all Texas students for the challenges they will face in the 21st century.</p>
<p>(a) Basic understandings.</p> <p>(1) Foundation concepts for high school mathematics. As presented in Grades K-8, the basic understandings of number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry; measurement; and probability and statistics are essential foundations for all work in high school mathematics. Students will continue to build on this foundation as they expand their understanding through other mathematical experiences.</p>	<p>(b) Introduction</p> <p>(3) In Algebra I, students will build on the knowledge and skills for mathematics in Grades 6-8, which provide a foundation in linear relationships, number and operations, and proportionality. Students will study linear, quadratic, and exponential functions and their related transformations, equations, and associated solutions. Students will connect functions and their associated solutions in both mathematical and real-world situations. Students will use technology to collect and explore data and analyze statistical relationships. In addition, students will study polynomials of degree one and two, radical expressions, sequences, and laws of exponents. Students will generate and solve linear systems with two equations and two variables and will create new functions through transformations.</p>
<p>(a) Basic understandings.</p> <p>(2) Algebraic thinking and symbolic reasoning. Symbolic reasoning plays a critical role in algebra; symbols provide powerful ways to represent mathematical situations and to express generalizations. Students use symbols in a variety of ways to study relationships among quantities.</p>	
<p>(a) Basic understandings.</p> <p>(3) Function concepts. A function is a fundamental mathematical concept; it expresses a special kind of relationship between two quantities. Students use functions to determine one quantity from another, to represent and model problem situations, and to analyze and interpret relationships.</p>	

Current TEKS	Proposed TEKS
<p>(a) Basic understandings.</p> <p>(4) Relationship between equations and functions. Equations and inequalities arise as a way of asking and answering questions involving functional relationships. Students work in many situations to set up equations and inequalities and use a variety of methods to solve them.</p>	
<p>(a) Basic understandings.</p> <p>(5) Tools for algebraic thinking. Techniques for working with functions and equations are essential in understanding underlying relationships. Students use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools, and technology (including, but not limited to, calculators with graphing capabilities, data collection devices, and computers) to model mathematical situations to solve meaningful problems.</p>	
<p>(a) Basic understandings.</p> <p>(6) Underlying mathematical processes. Many processes underlie all content areas in mathematics. As they do mathematics, students continually use problem-solving, language and communication, and reasoning (justification and proof) to make connections within and outside mathematics. Students also use multiple representations, technology, applications and modeling, and numerical fluency in problem-solving contexts.</p>	<p>(b) Introduction</p> <p>(2) The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>

Current TEKS	Proposed TEKS
	(b) Introduction (4) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

Current TEKS:	Proposed TEKS: Mathematical Process Standards
	<p>A.1A Mathematical Process Standards.</p> <p>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.</p>
	<p>A.1B Mathematical Process Standards.</p> <p>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>The student is expected to use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p>
	<p>A.1C Mathematical Process Standards.</p> <p>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>The student is expected to select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p>
	<p>A.1D Mathematical Process Standards.</p> <p>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p>
	<p>A.1E Mathematical Process Standards.</p> <p>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>The student is expected to create and use representations to organize, record, and communicate mathematical ideas.</p>

Current TEKS:	Proposed TEKS: Mathematical Process Standards
	A.1F Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to analyze mathematical relationships to connect and communicate mathematical ideas.
	A.1G Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Current TEKS: Foundations for Functions	Proposed TEKS
<p>A.1A Foundations for functions. The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways.</p> <p>The student is expected to describe independent and dependent quantities in functional relationships.</p>	
<p>A.1B Foundations for functions. The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways.</p> <p>The student is expected to gather and record data and use data sets to determine functional relationships between quantities.</p>	
<p>A.1C Foundations for functions. The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways.</p> <p>The student is expected to describe functional relationships for given problem situations and write equations or inequalities to answer questions arising from the situations.</p>	<p>A.4C Linear functions, equations and inequalities. The student applies the mathematical process standards to formulate statistical relationships and evaluate their reasonableness based on real-world data.</p> <p>The student is expected to write, with and without technology, linear functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems.</p>
<p>A.1D Foundations for functions. The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways.</p> <p>The student is expected to represent relationships among quantities using concrete models, tables, graphs, diagrams, verbal descriptions, equations, and inequalities.</p>	<p>A.12A Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations and functions.</p> <p>The student is expected to decide whether relations represented verbally, tabularly, graphically, and symbolically define a function.</p>
<p>A.1E Foundations for functions. The student understands that a function represents a dependence of one quantity on another and can be described in a variety of ways.</p> <p>The student is expected to interpret and make decisions, predictions, and critical judgments from functional relationships.</p>	

Current TEKS: Foundations for Functions	Proposed TEKS
<p>A.2A Foundations for functions.</p> <p>The student uses the properties and attributes of functions.</p> <p>The student is expected to identify and sketch the general forms of linear ($y = x$) and quadratic ($y = x^2$) parent functions.</p>	<p>A.3C Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to 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>A.2B Foundations for functions.</p> <p>The student uses the properties and attributes of functions.</p> <p>The student is expected to identify mathematical domains and ranges and determine reasonable domain and range values for given situations, both continuous and discrete.</p>	<p>A.2A Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to 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> <hr/> <p>A.6A Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations.</p> <p>The student is expected to determine the domain and range of quadratic functions and represent the domain and range using inequalities.</p>

Current TEKS: Foundations for Functions	Proposed TEKS
	<p>A.9A Exponential Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations, and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to determine the domain and range of exponential functions of the form $f(x) = a \cdot b^x$ and represent the domain and range using inequalities.</p>
<p>A.2C Foundations for functions.</p> <p>The student uses the properties and attributes of functions.</p> <p>The student is expected to interpret situations in terms of given graphs or creates situations that fit given graphs.</p>	
<p>A.2D Foundations for functions.</p> <p>The student uses the properties and attributes of functions.</p> <p>The student is expected to collect and organize data, make and interpret scatterplots (including recognizing positive, negative, or no correlation for data approximating linear situations), and model, predict, and make decisions and critical judgments in problem situations.</p>	<p>A.4A Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards to formulate statistical relationships and evaluate their reasonableness based on real-world data.</p> <p>The student is expected to calculate, using technology, the correlation coefficient between two quantitative variables and interpret this quantity as a measure of the strength of the linear association.</p> <p>A.4B Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards to formulate statistical relationships and evaluate their reasonableness based on real-world data.</p> <p>The student is expected to compare and contrast association and causation in real-world problems.</p>

Current TEKS: Foundations for Functions	Proposed TEKS
<p>A.3A Foundations for functions.</p> <p>The student understands how algebra can be used to express generalizations and recognizes and uses the power of symbols to represent situations.</p> <p>The student is expected to use symbols to represent unknowns and variables.</p>	<p><i>MOVED TO 8.1.D</i></p>
<p>A.3B Foundations for functions.</p> <p>The student understands how algebra can be used to express generalizations and recognizes and uses the power of symbols to represent situations.</p> <p>The student is expected to look for patterns and represent generalizations algebraically.</p>	<p>A.12C Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations and functions.</p> <p>The student is expected to identify terms of arithmetic and geometric sequences when the sequences are given in function form using recursive processes.</p>
	<p>A.12D Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations and functions.</p> <p>The student is expected to write a formula for the nth term of arithmetic and geometric sequences, given the value of several of their terms.</p>
<p>A.4A Foundations for functions.</p> <p>The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations.</p> <p>The student is expected to find specific function values, simplify polynomial expressions, transform and solve equations, and factor as necessary in problem situations.</p>	<p>A.10A Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms, and perform operations on, polynomial expressions.</p> <p>The student is expected to add and subtract polynomials of degree one and degree two.</p>
	<p>A.10B Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms, and perform operations on, polynomial expressions.</p> <p>The student is expected to multiply polynomials of degree one and degree two.</p>

Current TEKS: Foundations for Functions	Proposed TEKS
	<p>A.10C Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms, and perform operations on, polynomial expressions.</p> <p>The student is expected to determine the quotient of a polynomial of degree one and polynomial of degree two when divided by a polynomial of degree one and polynomial of degree two when the degree of the divisor does not exceed the degree of the dividend.</p>
	<p>A.10D Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms, and perform operations on, polynomial expressions.</p> <p>The student is expected to rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property.</p>
	<p>A.10E Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms, and perform operations on, polynomial expressions.</p> <p>The student is expected to factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two.</p>
	<p>A.10F Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms, and perform operations on, polynomial expressions.</p> <p>The student is expected to 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>

Current TEKS: Foundations for Functions	Proposed TEKS
	<p>A.12B Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations and functions.</p> <p>The student is expected to evaluate functions, expressed in function notation, given one or more elements in their domains.</p>
	<p>A.12E Number and Algebraic Methods. The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations and functions.</p> <p>The student is expected to solve mathematic and scientific formulas, and other literal equations, for a specified variable.</p>
<p>A.4B Foundations for functions.</p> <p>The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations.</p> <p>The student is expected to use the commutative, associative, and distributive properties to simplify algebraic expressions.</p>	<p style="text-align: right;"><i>Moved to 6.7D</i></p>
<p>A.4C Foundations for functions.</p> <p>The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations.</p> <p>The student is expected to connect equation notation with function notation, such as $y = x + 1$ and $f(x) = x + 1$.</p>	

Current TEKS: Linear Functions	Proposed TEKS
<p>A.5A Linear functions.</p> <p>The student understands that linear functions can be represented in different ways and translates among their various representations.</p> <p>The student is expected to determine whether or not given situations can be represented by linear functions.</p>	<p style="text-align: right;"><i>Moved to 8.5G</i></p>
<p>A.5B Linear functions.</p> <p>The student understands that linear functions can be represented in different ways and translates among their various representations.</p> <p>The student is expected to determine the domain and range for linear functions in given situations.</p>	<p>A.2A Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to 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>A.5C Linear functions.</p> <p>The student understands that linear functions can be represented in different ways and translates among their various representations.</p> <p>The student is expected to use, translate, and make connections among algebraic, tabular, graphical, or verbal descriptions of linear functions.</p>	<p>A.1D Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.</p> <p>The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p>
<p>A.6A Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to develop the concept of slope as rate of change and determine slopes from graphs, tables, and algebraic representations.</p>	<p>A.3A Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to 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 $y - y_1 = m(x - x_1)$.</p>

Current TEKS: Linear Functions	Proposed TEKS
	<p>A.3B Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems.</p>
<p>A.6B Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to interpret the meaning of slope and intercepts in situations using data, symbolic representations, or graphs.</p>	<p>A.3B Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to calculate the rate of change of a linear function represented tabularly, graphically, and algebraically over a specified interval within mathematical and real-world problems.</p>
<p>A.6C Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to investigate, describe, and predict the effects of changes in m and b on the graph of $y = mx + b$.</p>	<p>A.3E Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to determine the effects on the graph of the parent function $f(x) = x$ when $f(x)$ is replaced by $a \cdot f(x)$, $f(x) + d$, $f(x - c)$, $f(b \cdot x)$ for specific values of a, b, c and d.</p>

Current TEKS: Linear Functions	Proposed TEKS
<p>A.6D Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to graph and write equations of lines given characteristics such as two points, a point and a slope, or a slope and y-intercept.</p>	<p>A.2B Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to 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.</p>
	<p>A.2C Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write linear equations in two variables given a table of values, a graph, and a verbal description.</p>
	<p>A.2E Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write the equation of a line that contains a given point and is parallel to a given line.</p>
	<p>A.2F Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write the equation of a line that contains a given point and is perpendicular to a given line.</p>

Current TEKS: Linear Functions	Proposed TEKS
	<p>A.2G Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write an equation of a line that is parallel or perpendicular to the x- or y-axis, and determine whether the slope of the line is zero or undefined.</p>
<p>A.6E Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to determine the intercepts of the graphs of linear functions and zeros of linear functions from graphs, tables, and algebraic representations.</p>	<p>A.3C Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to 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>A.6F Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to interpret and predict the effects of changing slope and y-intercept in applied situations.</p>	

Current TEKS: Linear Functions	Proposed TEKS
<p>A.6G Linear functions.</p> <p>The student understands the meaning of the slope and intercepts of the graphs of linear functions and zeros of linear functions and interprets and describes the effects of changes in parameters of linear functions in real-world and mathematical situations.</p> <p>The student is expected to relate direct variation to linear functions and solve problems involving proportional change.</p>	<p>A.2D Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write and solve equations involving direct variation.</p>
<p>A.7A Linear functions.</p> <p>The student formulates equations and inequalities based on linear functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.</p> <p>The student is expected to analyze situations involving linear functions and formulate linear equations or inequalities to solve problems.</p>	<p style="text-align: right;"><i>Moved to 8.5A, 8.5B, 8.5I</i></p>
<p>A.7B Linear functions.</p> <p>The student formulates equations and inequalities based on linear functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.</p> <p>The student is expected to investigate methods for solving linear equations and inequalities using concrete models, graphs, and the properties of equality, select a method, and solve the equations and inequalities.</p>	<p>A.5A Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions.</p> <p>The student is expected to solve linear equations in one variable, including those for which the application of the distributive property is necessary and includes variables on both sides.</p>

Current TEKS: Linear Functions	Proposed TEKS
	<p>A.5B Linear Functions, Equations, and Inequalities. The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions.</p> <p>The student is expected to solve linear inequalities 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>A.7C Linear functions.</p> <p>The student formulates equations and inequalities based on linear functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.</p> <p>The student is expected to interpret and determine the reasonableness of solutions to linear equations and inequalities.</p>	<p style="text-align: right;"><i>Moved to 7.13B</i></p>
<p>A.8A Linear functions.</p> <p>The student formulates systems of linear equations from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.</p> <p>The student is expected to analyze situations and formulate systems of linear equations in two unknowns to solve problems.</p>	<p>A.2I Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write systems of two linear equations given a table of values, a graph, and a verbal description.</p>

Current TEKS: Linear Functions	Proposed TEKS
<p>A.8B Linear functions.</p> <p>The student formulates systems of linear equations from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.</p> <p>The student is expected to solve systems of linear equations using concrete models, graphs, tables, and algebraic methods.</p>	<p>A.3F Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to graph systems of two linear equations in two variables on the coordinate plane and determine the solutions if they exist.</p>
	<p>A.3G Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to estimate graphically the solutions to systems of two linear equations with two variables in real-world problems.</p>
	<p>A.5C Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions.</p> <p>The student is expected to solve, systems of two linear equations with two variables for mathematical and real-world problems.</p>

Current TEKS: Linear Functions	Proposed TEKS
<p>A.8C Linear functions.</p> <p>The student formulates systems of linear equations from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation.</p> <p>The student is expected to interpret and determine the reasonableness of solutions to systems of linear equations.</p>	
	<p>A.2H Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations.</p> <p>The student is expected to write linear inequalities in two variables given a table of values, a graph, and a verbal description.</p>
	<p>A.3D Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to graph the solution set of linear inequalities in two variables on the coordinate plane.</p>
	<p>A.3H Linear Functions, Equations, and Inequalities.</p> <p>The student applies the mathematical process standards when using graphs of linear functions, their key features, and their related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations.</p> <p>The student is expected to graph the solution set of systems of two linear inequalities in two variables on the coordinate plane.</p>

Current TEKS: Quadratic and other nonlinear functions	Proposed TEKS
<p>A.9A Quadratic and other nonlinear functions.</p> <p>The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions.</p> <p>The student is expected to determine the domain and range for quadratic functions in given situations.</p>	<p>A.6A Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations.</p> <p>The student is expected to determine the domain and range of quadratic functions and represent the domain and range using inequalities.</p>
<p>A.9B Quadratic and other nonlinear functions.</p> <p>The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions.</p> <p>The student is expected to investigate, describe, and predict the effects of changes in a on the graph of $y = ax^2 + c$.</p>	<p>A.7C Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations.</p> <p>The student is expected to determine the effects on the graph of the parent function $f(x) = x^2$ when $f(x)$ is replaced by $a \cdot f(x)$, $f(x) + d$, $f(x - c)$, $f(b \cdot x)$ for specific values of a, b, c and d.</p>
<p>A.9C Quadratic and other nonlinear functions.</p> <p>The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions.</p> <p>The student is expected to investigate, describe, and predict the effects of changes in c on the graph of $y = ax^2 + c$.</p>	
<p>A.9D Quadratic and other nonlinear functions.</p> <p>The student understands that the graphs of quadratic functions are affected by the parameters of the function and can interpret and describe the effects of changes in the parameters of quadratic functions.</p> <p>The student is expected to analyze graphs of quadratic functions and draw conclusions.</p>	<p>A.7A Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations.</p> <p>The student is expected to 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>

Current TEKS: Quadratic and other nonlinear functions	Proposed TEKS
<p>A.10A Quadratic and other nonlinear functions.</p> <p>The student understands there is more than one way to solve a quadratic equation and solves them using appropriate methods.</p> <p>The student is expected to solve quadratic equations using concrete models, tables, graphs, and algebraic methods.</p>	<p>A.8A Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards to solve, with and without technology, quadratic equations and evaluate the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to solve quadratic equations, having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula.</p>
<p>A.10B Quadratic and other nonlinear functions.</p> <p>The student understands there is more than one way to solve a quadratic equation and solves them using appropriate methods.</p> <p>The student is expected to make connections among the solutions (roots) of quadratic equations, the zeros of their related functions, and the horizontal intercepts (x-intercepts) of the graph of the function.</p>	<p>A.6C Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations.</p> <p>The student is expected to write quadratic functions when given real solutions and graphs of their related equations.</p> <hr/> <p>A.7B Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations.</p> <p>The student is expected to describe the relationship between the linear factors of quadratic expressions and the zeros of their associated quadratic functions.</p>

Current TEKS: Quadratic and other nonlinear functions	Proposed TEKS
Moved from Algebra 2	<p>A.6B Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations.</p> <p>The student is expected to write equations of quadratic functions given the vertex and another point on the graph, write this equation in vertex form $(f(x) = a(x - h)^2 + k)$, and then rewrite this equation from vertex form to standard form $(f(x) = ax^2 + bx + c)$.</p>
Moved from Algebra 2	<p>A.6C Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations.</p> <p>The student is expected to write quadratic functions when given real solutions and graphs of their related equations.</p>
Moved from Algebra 2	<p>A.8B Quadratic Functions, and Equations.</p> <p>The student applies the mathematical process standards to solve, with and without technology, quadratic equations and evaluate the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to write, using technology, quadratic functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems.</p>
	<p>A.9B Exponential Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations, and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to interpret the meaning of the values of a and b in exponential functions of the form $f(x) = a \cdot b^x$ in real-world problems.</p>

Current TEKS: Quadratic and other nonlinear functions	Proposed TEKS
	<p>A.11A Number and Algebraic Methods.</p> <p>The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms.</p> <p>The student is expected to simplify numerical radical expressions involving square roots.</p>
<p>A.11A Quadratic and other nonlinear functions.</p> <p>The student understands there are situations modeled by functions that are neither linear nor quadratic and models the situations.</p> <p>The student is expected to use patterns to generate the laws of exponents and apply them in problem-solving situations.</p>	<p>A.11B Number and Algebraic Methods.</p> <p>The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms.</p> <p>The student is expected to simplify numeric and algebraic expressions using the laws of exponents, including integral and rational exponents.</p>
<p>A.11B Quadratic and other nonlinear functions.</p> <p>The student understands there are situations modeled by functions that are neither linear nor quadratic and models the situations.</p> <p>The student is expected to analyze data and represent situations involving inverse variation using concrete models, tables, graphs, or algebraic methods.</p>	

Current TEKS: Quadratic and other nonlinear functions	Proposed TEKS
<p>A.11C Quadratic and other nonlinear functions.</p> <p>The student understands there are situations modeled by functions that are neither linear nor quadratic and models the situations.</p> <p>The student is expected to analyze data and represent situations involving exponential growth and decay using concrete models, tables, graphs, or algebraic methods.</p>	<p>A.9B Exponential Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations, and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to interpret the meaning of the values of a and b in exponential functions of the form $f(x) = a \cdot b^x$ in real-world problems.</p>
	<p>A.9C Exponential Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations, and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to write exponential functions in the form $f(x) = a \cdot b^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations including growth and decay.</p>

Current TEKS: Quadratic and other nonlinear functions	Proposed TEKS
	<p>A.9D Exponential Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations, and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to graph exponential functions that model growth and decay and identify key features, including y-intercept and asymptote, in mathematical and real-world problems.</p> <hr/> <p>A.9E Exponential Functions, and Equations.</p> <p>The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations, and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data.</p> <p>The student is expected to write, using technology, exponential functions that provide a reasonable fit to data and make predictions for real-world problems.</p>