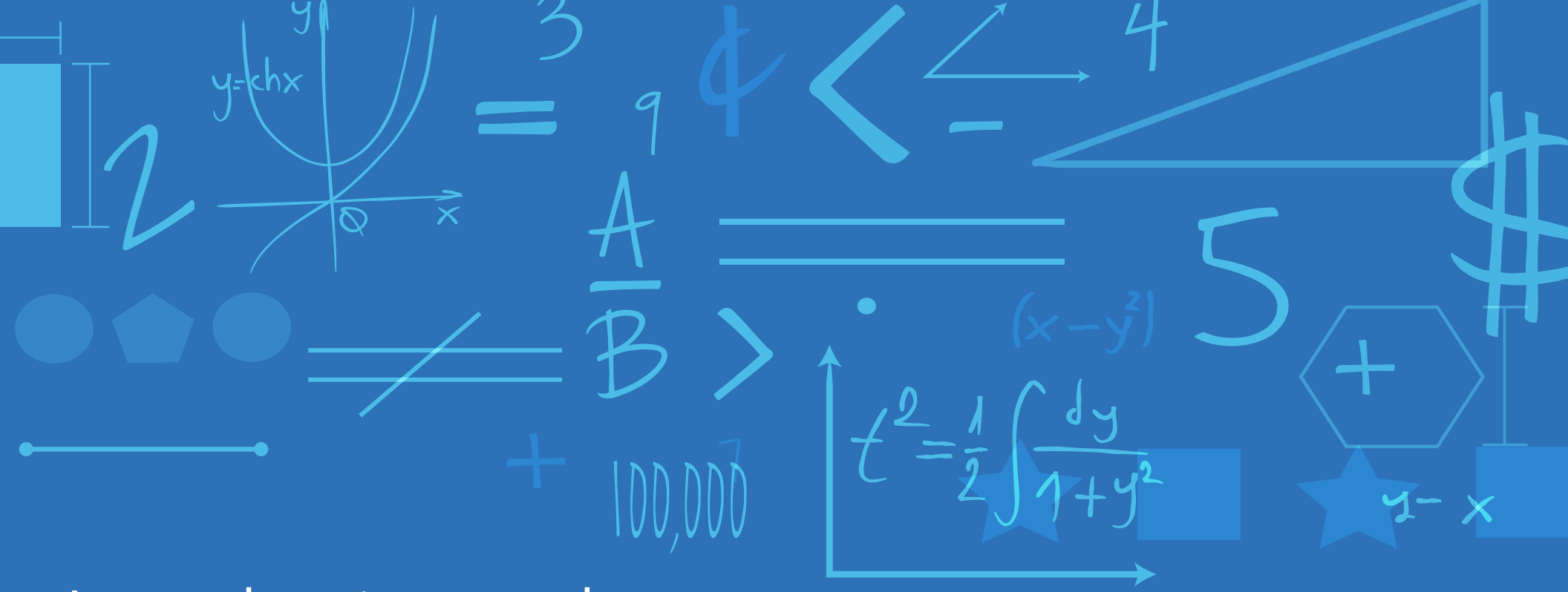

Introduction to the **Revised Mathematics TEKS**

SIDE-BY-SIDE TEKS COMPARISON
ALGEBRA II

TEA™
TEXAS EDUCATION AGENCY

Old TEKS	Current TEKS (2012)	Supporting Information	Notes
	(a) General requirements. Students shall be awarded one-half to one credit for successful completion of this course. Prerequisite: Algebra I.		
	(b) Introduction. (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.	A well-balanced mathematics curriculum includes the College and Career Readiness Standards. A focus on mathematical fluency and solid understanding allows for rich exploration of the key ideas of Algebra II.	

Old TEKS	Current TEKS (2012)	Supporting Information	Notes
(a) Basic understandings. (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 continue to build on this foundation as they expand their understanding through other mathematical experiences.	(b) Introduction. (3) In Algebra II, students build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I. Students will broaden their knowledge of quadratic functions, exponential functions, and systems of equations. Students will study logarithmic, square root, cubic, cube root, absolute value, rational functions, and their related equations. Students will connect functions to their inverses and associated equations and solutions in both mathematical and real-world situations. In addition, students will extend their knowledge of data analysis and numeric and algebraic methods.	The Revised TEKS (2012) condense the language of the basic understandings.	
(a) Basic understandings. (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 study algebraic concepts and the relationships among them to better understand the structure of algebra.			
(a) Basic understandings. (3) Functions, equations, and their relationship. The study of functions, equations, and their relationship is central to all of mathematics. Students perceive functions and equations as means for analyzing and understanding a broad variety of relationships and as a useful tool for expressing generalizations.			
(a) Basic understandings. (4) Relationship between algebra and geometry. Equations and functions are algebraic tools that can be used to represent geometric curves and figures; similarly, geometric figures can illustrate algebraic relationships. Students perceive the connections between algebra and geometry and use the tools of one to help solve problems in the other.			
(a) Basic understandings. (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.			

Content that is deleted by 2012 TEKS – Content that remains or is clarified in 2012 TEKS (● Stay) (●+Addition) (⭘ Deletion) Content that is new in 2012 TEKS +

Old TEKS	Current TEKS (2012)	Supporting Information	Notes
(a) Basic understandings. (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.	(b) Introduction. (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.	The 2012 paragraph occurs second in the Revised TEKS (2012), preceding the content descriptions. This highlights the emphasis of student use of the mathematical process standards to acquire and demonstrate mathematical understanding.	
	(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.	The State Board of Education approved the retention of some “such as” statements within the TEKS where needed for clarification of content.	

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	Old TEKS: Foundations for functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(1)(A) **Foundations for functions.** The student uses properties and attributes of functions and applies functions to problem situations. **The student is expected to identify the mathematical domains and ranges of functions and determine reasonable domain and range values for continuous and discrete situations.**	2A(7)(I) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to write the domain and range of a function in interval notation, inequalities, and set notation.**	The revised SE builds on Algebra I SE A(6)(A), where students are expected to write domain and range of quadratic functions using inequalities. Specificity has been added to include interval notation, inequalities, and set notation. Both continuous and discrete functions are subsumed within the term "function." "Identify" is made more specific with "write." When paired with process standard 2A(1)(B), students are expected to determine reasonable values for domain and range in given situations.	
●	2A(1)(B) **Foundations for functions.** The student uses properties and attributes of functions and applies functions to problem situations. **The student is expected to collect and organize data, make and interpret scatterplots, fit the graph of a function to the data, interpret the results, and proceed to model, predict, and make decisions and critical judgments.**	2A(8)(A) **Data**. The student applies mathematical processes to analyze data, select appropriate models, write corresponding functions, and make predictions. **The student is expected to analyze data to select the appropriate model from among linear, quadratic, and exponential models.** 2A(8)(B) **Data**. The student applies mathematical processes to analyze data, select appropriate models, write corresponding functions, and make predictions. **The student is expected to use regression methods available through technology to write a linear function, a quadratic function, and an exponential function from a given set of data.** 2A(8)(C) **Data**. The student applies mathematical processes to analyze data, select appropriate models, write corresponding functions, and make predictions. **The student is expected to predict and make decisions and critical judgments from a given set of data using linear, quadratic, and exponential models.**	Specificity has been added for which models students may apply. Selecting the appropriate model includes fitting a graph of a function to data. When paired with process standards 2A(1)(D), 2A(1)(E), and 2A(1)(F), the student expectation includes collecting, organizing, making, and interpreting scatterplots. Specificity has been added to use regression methods and technology to write an appropriate model for a given set of data. When paired with process standards, students could use multiple representations of the data to determine which function to us to model the data.	

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	Old TEKS: Foundations for functions	Current TEKS (2012)	Supporting Information	Notes
			The current SE has been split into several more specific SEs which appear in both Algebra I and Algebra II: *Quadratic functions and equations* A(8)(A) *Number and algebraic methods* A(11)(B)	
⭘	2A(2)(A) **Foundations for functions.** 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. **The student is expected to use tools including factoring and properties of exponents to simplify expressions and to transform and solve equations.**		This SE has been subsumed within Algebra II SEs: *Systems of equations and inequalities* 2A(3)(C) *Quadratic and square root functions, equations, and inequalities* 2A(4)(F) *Exponential and logarithmic functions and equations* 2A(5)(D) *Cubic, cube root, absolute value and rational functions, equations, and inequalities* 2A(6)(B) *Number and Algebraic Methods* 2A(7)(B) 2A(7)(C) 2A(7)(F) 2A(7)(G) 2A(7)(H)	
●	2A(2)(B) **Foundations for functions.** 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. **The student is expected to use complex numbers to describe the solutions of quadratic equations.**	2A(4)(F) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic and square root equations.**	The revised SE combines solving both quadratic and square root equations. The notion of complex numbers as solutions is subsumed in the term “solve,” as solutions may be real or imaginary. The revised SE builds on Algebra I A(8)(A), in which students determine only real solutions to quadratic equations.	

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	Old TEKS: Foundations for functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(3)(A) **Foundations for functions.** The student formulates systems of equations and inequalities from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situations. **The student is expected to analyze situations and formulate systems of equations in two or more unknowns or inequalities in two unknowns to solve problems.**	2A(3)(A) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to formulate systems of equations, including systems consisting of three linear equations in three variables and systems consisting of two equations, the first linear and the second quadratic.**	When paired with mathematical process standards A(1)(A)(B)(C),students may be expected to analyze situations to formulate equations and inequalities. The revised SEs separate inequalities and equations into two different SEs. The revised SE 2A(3)(A) builds on systems of equations from Algebra I: *Linear functions, equations, and inequalities* A(2)(I)	
		2A(3)(E) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to formulate systems of at least two linear inequalities in two variables.**	The revised SE 2A(3)(E) builds on formulating inequalities from Algebra I: *Linear functions, equations, and inequalities* A(2)(H) Specificity has been added for solving systems of three equations in three variables. Specificity has been added for formulating systems of at least two linear inequalities.	
●	2A(3)(B) **Foundations for functions.** The student formulates systems of equations and inequalities from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situations. **The student is expected to use algebraic methods, graphs, tables, or matrices, to solve systems of equations or inequalities.**	2A(3)(B) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to solve systems of three linear equations in three variables by using Gaussian elimination, technology with matrices, and substitution.**	Specificity has been added to the methods for solving systems of three linear equations to include Gaussian elimination and technology with matrices. Specificity has been added to include a system of equations consisting of one linear equation and one quadratic equation. The revised SE 2A(3)(C) builds on solving systems of two linear equations with two variables from Algebra I: *Linear functions, equations, and inequalities* A(3)(G) A(5)(C) The revised SE 2A(3)(F) builds on graphing the solution set of systems of two linear inequalities in two variables from Algebra I: *Linear functions, equations, and inequalities* A(3)(H)	
		2A(3)(C) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to solve, algebraically, systems of two equations in two variables consisting of a linear equation and a quadratic equation.**		
		2A(3)(F) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to solve systems of two or more linear inequalities in two variables.**		

	Old TEKS: Foundations for functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(3)(C) **Foundations for functions.** The student formulates systems of equations and inequalities from problem situations, uses a variety of methods to solve them, and analyzes the solutions in terms of the situations. **The student is expected to interpret and determine the reasonableness of solutions to systems of equations or inequalities for given contexts.**	2A(3)(D) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to determine the reasonableness of solutions to systems of a linear equation and a quadratic equation in two variables.** 2A(3)(G) **Systems of equations and inequalities.** The student applies mathematical processes to formulate systems of equations and inequalities, use a variety of methods to solve, and analyze reasonableness of solutions. **The student is expected to determine possible solutions in the solution set of systems of two or more linear inequalities in two variables.**	When paired with mathematical process standard A(1)(B), students are expected to evaluate the reasonableness of the solution. Revised SE 2A(3)(D) builds on solving systems of two equations in two variables for real-world problems from Algebra I: *Linear functions, equations, and inequalities* A(3)(G) A(5)(C) The revised SE 2A(3)(G) builds on graphing the solution set of systems of two linear inequalities in two variables from Algebra I: *Linear functions, equations, and inequalities* A(3)(H)	

	Old TEKS: Algebra and geometry	Current TEKS (2012)	Supporting Information	Notes
	2A(4)(A) **Algebra and geometry.** The student connects algebraic and geometric representations of functions. **The student is expected to identify and sketch graphs of parent functions, including**	2A(2)(A) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and understand the relationship between a function and its inverse. **The student is expected to graph the functions,** $f(x) = \sqrt{x}$, $f(x) = \frac{1}{x}$,	The functions are no longer referred to as "parent" functions. Specificity has been added to limit the values for "*b*" in logarithmic functions to 2, 10, and *e*.	
O+	**linear (*f*(*x*) = *x*), quadratic (*f*(*x*) = *x*²),**	$f(x) = x^3$, $f(x) = \sqrt[3]{x}$	The revised SE includes the cube and cube root functions. Linear and quadratic functions were moved to Algebra I: *Linear functions, equations, and inequalities* A(3)(C) *Quadratic functions and equations* A(7)(A)	
	exponential (*f*(*x*) = *a*ˣ), and logarithmic (*f*(*x*) = log$_a$*x*) functions, absolute value of *x* (*f*(*x*) = |*x*|), square root of *x* (*f*(*x*) = √*x*), and reciprocal of *x* (*f*(*x*) = 1/*x*).	$f(x) = b^x$, $f(x) = \lvert x \rvert$, **and** $f(x) = log_b(x)$ **where *b* is 2, 10 and *e*, and, when applicable, analyze the key attributes such as domain, range, intercepts, symmetries, asymptotic behavior, and maximum and minimum given an interval.**	Specificity was added to include the key attributes to be analyzed. Students should use key attributes to recognize and sketch graphs.	
O	2A(4)(B) **Algebra and geometry.** The student connects algebraic and geometric representations of functions. **The student is expected to extend parent functions with parameters such as *a* in *f*(*x*) = *a*/*x* and describe the effects of the parameter changes on the graph of parent functions.**		Parameter changes with regards to linear and quadratic functions have moved to Algebra I and are subsumed within A(3)(E) and A(7)(C). Although "parent" functions are not included in the revised TEKS (2012), the concept of transforming a given function is included in the revised TEKS (2012). Describing the effects of parameter changes on parent functions is subsumed within 2A(4)(C), 2A(5)(A), 2A(6)(C), and 2A(6)(G).	

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	Old TEKS: Algebra and geometry	Current TEKS (2012)	Supporting Information	Notes
●	2A(4)(C) **Algebra and geometry.** The student connects algebraic and geometric representations of functions. **The student is expected to describe and analyze the relationship between a function and its inverse.**	2A(2)(B) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to graph and write the inverse of a function using notation such as $f^{-1}(x)$.** 2A(2)(C) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to describe and analyze the relationship between a function and its inverse (quadratic and square root, logarithmic and exponential), including the restriction(s) on domain, which will restrict its range.** 2A(2)(D) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to use the composition of two functions, including the necessary restrictions on the domain, to determine if the functions are inverses of each other.**	Specificity has been provided in the revised SE 2A(2)(B) to clarify notation that should be used for inverse of a function. Specificity has been added in the revised SE 2A(2)(C) to describe and analyze the quadratic and square root relationship and the logarithmic and exponential relationship. Specificity has been added in the revised SE 2A(2)(D) to use the composition of two functions to determine if those functions are inverses of each other. Domain restrictions were implied in the current SE but are explicitly mentioned in revised SE 2A(2)(D).	
–	2A(5)(A) **Algebra and geometry.** The student knows the relationship between the geometric and algebraic descriptions of conic sections. **The student is expected to describe a conic section as the intersection of a plane and a cone.**		The content of this SE was moved to Precalculus: *Relations and geometric reasoning* P(3)(F)	
–	2A(5)(B) **Algebra and geometry.** The student knows the relationship between the geometric and algebraic descriptions of conic sections. **The student is expected to sketch graphs of conic sections to relate simple parameter changes in the equation to corresponding changes in the graph.**		The content of this SE was moved to Precalculus: *Relations and geometric thinking* P(3)(G) Students are expected to write the equation of a parabola given certain attributes: *Quadratic and square root functions, equations, and inequalities* 2A(4)(B) Students are expected to write the equation of a circle given certain attributes: *Circles* G(12)(E)	

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	Old TEKS: Algebra and geometry	Current TEKS (2012)	Supporting Information	Notes
–	2A(5)(C) **Algebra and geometry.** The student knows the relationship between the geometric and algebraic descriptions of conic sections. **The student is expected to identify symmetries from graphs of conic sections.**		The content of this SE was moved to Precalculus: *Relations and geometric thinking* P(3)(G)	
–	2A(5)(D) **Algebra and geometry.** The student knows the relationship between the geometric and algebraic descriptions of conic sections. **The student is expected to identify the conic section from a given equation.**		The content of this SE was moved to Precalculus: *Relations and geometric thinking* P(3)(H) P(3)(I) Students are expected to write the equation of a parabola given certain attributes: *Quadratic and square root functions, equations, and inequalities* 2A(4)(B) Students are expected to write the equation of a circle given certain attributes. *Circles* G(12)(E)	
–	2A(5)(E) **Algebra and geometry.** The student knows the relationship between the geometric and algebraic descriptions of conic sections. **The student is expected to use the method of completing the square.**		The content of this SE was moved to Algebra I: *Quadratic functions and equations* A(8)(A)	

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	Old TEKS: Quadratic and square root functions	Current TEKS (2012)	Supporting Information	Notes
●–	2A(6)(A) **Quadratic and square root functions.** The student understands that quadratic functions can be represented in different ways and translates among their various representations. **The student is expected to** **determine the reasonable domain and range values of quadratic functions, as well as** **interpret and determine the reasonableness of solutions to quadratic equations and inequalities.**	2A(4)(F) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic and square root equations.** 2A(4)(H) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic inequalities.**	Solving quadratic equations and inequalities is implicit in the current SE but is explicitly stated in the revised SE. When paired with the mathematical process standard 2A(1)(B), students may be expected to determine the reasonableness of solutions to quadratic equations. Determining the domain and range values of quadratic functions has moved to Algebra I: *Quadratic functions and equations* A(6)(A)	
–	2A(6)(B) **Quadratic and square root functions.** The student understands that quadratic functions can be represented in different ways and translates among their various representations. **The student is expected to relate representations of quadratic functions, such as algebraic, tabular, graphical, and verbal descriptions.**		Students begin working with quadratics in Algebra I and that work continues in Algebra II. When the revised TEKS (2012) for quadratic and square root functions are paired with the mathematical process standards, students are expected to relate the multiple representations of quadratic functions to each other: *Mathematical process standards* A(1)(E) A(1)(D)	
●	2A(6)(C) **Quadratic and square root functions.** The student understands that quadratic functions can be represented in different ways and translates among their various representations. **The student is expected to determine a quadratic function from its roots (real or complex) or a graph.**	2A(4)(A) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to write the quadratic function given three specified points in the plane.**	The revised SE builds on writing quadratic functions given real solutions and related graphs in Algebra I: *Quadratic functions and equations* A(6)(C) Specificity has been added to provide any three specified points. The provided points may or may not include roots. Complex roots may be included. Points may be provided from a table, graph, or verbal description.	

	Old TEKS: Quadratic and square root functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(7)(A) **Quadratic and square root functions.** The student interprets and describes the effects of changes in the parameters of quadratic functions in applied and mathematical situations. **The student is expected to use characteristics of the quadratic parent function to sketch the related graphs and connect between the $y = ax^2 + bx + c$ and the $y = a(x - h)^2 + k$ symbolic representations of quadratic functions.**	2A(4)(D) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to transform a quadratic function $f(x) = ax^2 + bx + c$ to the form $f(x) = a(x - h)^2 + k$ to identify the different attributes of $f(x)$.**	The revised SE builds on completing the square by using it as a method to transform a quadratic function: *Quadratic functions and equations* A(8)(A) The revised SE extends transforming a quadratic function from the form $f(x) = a(x - h)^2 + k$ to the form $f(x) = ax^2 + bx + c$: *Quadratic functions and equations* A(6)(B) After transforming the quadratic function students are expected to identify attributes such as the vertex, intercepts, axis of symmetry, directrix, and the direction of opening.	
–	2A(7)(B) **Quadratic and square root functions.** The student interprets and describes the effects of changes in the parameters of quadratic functions in applied and mathematical situations. **The student is expected to use the parent function to investigate, describe, and predict the effects of changes in a, h, and k on the graphs of $y = a(x - h)^2 + k$ form of a function in applied and purely mathematical situations.**		The content of this SE was moved to Algebra I: *Quadratic functions and equations* A(7)(C)	
●	2A(8)(A) **Quadratic and square root functions.** The student formulates equations and inequalities based on quadratic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to analyze situations involving quadratic functions and formulate quadratic equations or inequalities to solve problems.**	2A(4)(A) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to write the quadratic function given three specified points in the plane.**	When each of the revised SEs listed is paired with the process standards 2A(1)(B), students are expected to analyze quadratic functions, equations, or inequalities in a given situation to solve problems.	
		2A(4)(E) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to formulate quadratic and square root equations using technology given a table of data.**	The revised SE 2A(4)(E) combines two current SEs: *Quadratic and square root functions* 2A(8)(A) 2A(9)(F) In Algebra I students formulate a quadratic equation using technology: *Quadratic functions and equations* A(8)(B)	

	Old TEKS: Quadratic and square root functions	Current TEKS (2012)	Supporting Information	Notes
●		2A(4)(F) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic and square root equations.**	The revised SEs extend students' learning of quadratics functions and equations from Algebra I. Students are expected to use the discriminant of a quadratic equation to determine the number and type of roots. Quadratic inequalities are introduced in Algebra II.	
		2A(4)(H) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic inequalities.**		
–	2A(8)(B) **Quadratic and square root functions.** The student formulates equations and inequalities based on quadratic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to analyze and interpret the solutions of quadratic equations using discriminants and solve quadratic equations using the quadratic formula.**		In Algebra I, students are expected to solve quadratic equations with real solutions using the quadratic formula: *Quadratic functions and equations* A(8)(A) Complex solutions to quadratic equations are included in Algebra II: *Quadratic and square root functions, equations and inequalities* 2A(4)(F) Discriminants are not explicitly addressed in Algebra II, but are subsumed in solving quadratic equations: *Quadratic and square root functions, equations, and inequalities* 2A(4)(F)	
–	2A(8)(C) **Quadratic and square root functions.** The student formulates equations and inequalities based on quadratic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to compare and translate between algebraic and graphical solutions of quadratic equations.**		The content of this SE was moved to Algebra I: *Quadratic functions and equations* A(7)(B)	

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●	2A(8)(D) **Quadratic and square root functions.** The student formulates equations and inequalities based on quadratic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to solve quadratic equations and inequalities using graphs, tables, and algebraic methods.**	2A(4)(F) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic and square root equations.**	In Algebra I, students determine real solutions to quadratic equations by factoring, taking square roots, completing the square, and applying the quadratic formula: *Quadratic functions and equations* A(8)(A) In Algebra II, students are expected to determine real and complex solutions.	
		2A(4)(H) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic inequalities.**	Inequalities may have real or complex boundary values.	
●	2A(9)(A) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to use the parent function to investigate, describe, and predict the effects of parameter changes on the graphs of square root functions and describe limitations on the domains and ranges.**	2A(2)(A) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to graph the functions,** $f(x) = \sqrt{x}$, $f(x) = \frac{1}{x}$, $f(x) = x^3$, $f(x) = \sqrt[3]{x}$, $f(x) = b^x$, $f(x) = \lvert x \rvert$, **and** $f(x) = \log_b(x)$ **where** b **is** 2, 10 **and** e, **and, when applicable, analyze the key attributes such as domain, range, intercepts, symmetries, asymptotic behavior, and maximum and minimum given an interval.**	Revised SE 2A(2)(A) includes the limitations on the domains and ranges for all of the functions listed, including the square root function. The square root function is included in the functions studied in Algebra II. Specificity has been added with the revised SE 2A(4)(C) to indicate the use of function notation and which parameter changes should be applied. Determining the effects of multiple parameter changes to the function is included.	
		2A(4)(C) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to determine the effect on the graph of** $f(x) = \sqrt{x}$, **when** ***f(x)*** **is replaced by** ***af(x)***, ***f(x) + d***, ***f(bx)***, **and** ***f(x - c)*** **for specific positive and negative values of** ***a***, ***b***, ***c***, **and** ***d***.		

Content that is deleted by 2012 TEKS – Content that remains or is clarified in 2012 TEKS (● Stay) (●+Addition) (⭘ Deletion) Content that is new in 2012 TEKS +

	Old TEKS: Quadratic and square root functions	Current TEKS (2012)	Supporting Information	Notes
–	2A(9)(B) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to relate representations of square root functions, such as algebraic, tabular, graphical, and verbal descriptions.**		When the revised content SEs that address square root functions are paired with the process standards, students will relate the multiple representations of square root functions. Though the specific language of this SE is removed, it is subsumed within A(1)(E) and A(1)(D).	
●+	2A(9)(C) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine the reasonable domain and range values of square root functions, as well as interpret and determine the reasonableness of solutions to square root equations and inequalities.**	2A(4)(G) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to identify extraneous solutions of square root equations.** 2A(7)(I) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to write the domain and range of a function in interval notation, inequalities, and set notation.**	The revised SE 2A(4)(G) is a subset of the current SE: *Quadratic and square root functions* 2A(9)(C) Reasonableness of solutions includes extraneous solutions. When paired with mathematical process standards 2A(1)(A)(B)(D)(G), students are expected to determine the reasonableness of domain and range values in problem situations presented algebraically, graphically and in tables.	
●	2A(9)(D) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine solutions of square root equations using graphs, tables, and algebraic methods.**	2A(4)(F) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic and square root equations.**	When paired with mathematical process standards 2(1)(D), students are expected to use algebraic, graphical, and tabular methods to solve quadratic equations.	

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	Old TEKS: Quadratic and square root functions	Current TEKS (2012)	Supporting Information	Notes
–	2A(9)(E) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine solutions of square root inequalities using graphs and tables.**		Determining the solutions of square root inequalities is not included in the revised TEKS for Algebra II.	
●–	2A(9)(F) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to analyze situations modeled by square root functions, formulate equations or inequalities, select a method, and solve problems.**	2A(4)(E) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to formulate quadratic and square root equations using technology given a table of data.** 2A(4)(F) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve quadratic and square root equations.** 2A(4)(G) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to identify extraneous solutions of square root equations.**	The revised SE 2A(4)(E) combines two current SEs: *Quadratic and square root functions* 2A(8)(A) 2A(9)(F) When paired with the mathematical process standards 2A(1)(B)(C), students are expected to analyze situations that are modeled by quadratic and square root functions. Specificity has been added with revised SE 2A(4(E) regarding the use of technology. Students may be expected to use regression and the concept of inverse function to formulate quadratic and square root equations. Square root inequalities are not included in the revised TEKS for Algebra II.	

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	Old TEKS: Quadratic and square root functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(9)(G) **Quadratic and square root functions.** The student formulates equations and inequalities based on square root functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to connect inverses of square root functions with quadratic functions.**	2A(2)(C) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to describe and analyze the relationship between a function and its inverse (quadratic and square root, logarithmic and exponential), including the restriction(s) on domain, which will restrict its range.**	Specificity has been added to include the restrictions on the domain and range of inverse functions.	
+		2A(4)(B) **Quadratic and square root functions, equations, and inequalities.** The student applies mathematical processes to understand that quadratic and square root functions, equations, and quadratic inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to write the equation of a parabola using given attributes, including vertex, focus, directrix, axis of symmetry, and direction of opening**		

	Old TEKS: Rational functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(10)(A) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to use quotients of polynomials to describe the graphs of rational functions, predict the effects of parameter changes, describe limitations on the domains and ranges, and examine asymptotic behavior.**	2A(6)(G) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to analyze the effect on the graphs of $f(x)=\frac{1}{x}$, when *f(x)* is replaced by *af(x)*, *f(bx)*, *f(x - c)*, and *f(x) + d* for specific positive and negative real values of *a*, *b*, *c*, and *d*.**	In the revised SE, students are expected to analyze the effects of parameter changes on $f(x)=\frac{1}{x}$. Specificity has been added to include limitations on the domain and range of a rational function and the behavior of the asymptotes as well as the types of notation. Specificity has been added for the types of notation used to represent domain and range.	
		2A(6)(K) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to determine the asymptotic restrictions on the domain of a rational function and represent domain and range using interval notation, inequalities, and set notation.**	Students may be expected to factor the denominator of the rational function to determine the restrictions on the domain of the function. When paired with the mathematical process standard 2A(1)(C), students may graph rational functions, using technology, to determine the range of the function. Students will graph and continue work with rational functions in Precalculus: *Functions* P(2)(G)(I)	
–	2A(10)(B) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to analyze various representations of rational functions with respect to problem situations.**		When the revised content SEs that address rational functions are paired with the process standards, students will analyze various representations of a rational function. Though the specific language of this SE is removed, it is subsumed in A(1)(E) and A(1)(D).	

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	Old TEKS: Rational functions	Current TEKS (2012)	Supporting Information	Notes
⭘	2A(10)(C) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine the reasonable domain and range values of rational functions, as well as interpret and determine the reasonableness of solutions to rational equations and inequalities.**	2A(6)(J) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to determine the reasonableness of a solution to a rational equation.**	Specificity has been added to the revised SE 2A(6)(K) to include types of notations for representing domain and range. The revised SE 2A(6)(K) focuses on vertical asymptotes which serve to restrict the domain of a rational function.	
		2A(6)(K) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to determine the asymptotic restrictions on the domain of a rational function and represent domain and range using interval notation, inequalities, and set notation.**	Solving rational inequalities has moved to Precalculus. *Algebraic Reasoning* P(5)(L)	
●	2A(10)(D) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine the solutions of rational equations using graphs, tables, and algebraic methods.**	2A(6)(I) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve rational equations that have real solutions.**	When paired with the process standards, students are expected to use different representations to solve rational equations. Specificity was added to include the operations of determining the sum, difference, product, and quotient of rational expressions. Operations with rational expressions are used to solve rational equations when using algebraic methods.	
		2A(7)(F) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to determine the sum, difference, product, and quotient of rational expressions with integral exponents of degree one and of degree two.**		

	Old TEKS: Rational functions	Current TEKS (2012)	Supporting Information	Notes
–	2A(10)(E) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine solutions of rational inequalities using graphs and tables.**		The content of this SE has moved to Precalculus: *Algebraic reasoning* P(5)(L)	
➊	2A(10)(F) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to analyze a situation modeled by a rational function, formulate an equation or inequality composed of a linear or quadratic function, and solve the problem.**	2A(6)(H) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to formulate rational equations that model real-world situations.** 2A(6)(I) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve rational equations that have real solutions.** 2A(6)(J) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to determine the reasonableness of a solution to a rational equation.**	When paired with mathematical process standard 2A(1)(B), students may be expected to analyze a situation before formulating an equation to model the situation. The revised SEs are limited to the rational equations composed of linear or quadratic functions based on the degree one and degree two limitations in revised SE 2A(7)(F). The SEs are limited to rational functions with real solutions. Determining the solution set of rational inequalities has been moved to Precalculus: *Algebraic reasoning* P(5)(L)	

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	Old TEKS: Rational functions	Current TEKS (2012)	Supporting Information	Notes
⊖	2A(10)(G) **Rational functions.** The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to use functions to model and make predictions in problem situations involving direct and inverse variation.**	2A(6)(L) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to formulate and solve equations involving inverse variation.**	Students are expected to model algebraically and formulate equations for inverse variation. Students are expected to solve equations to make predictions. When paired with the mathematical process standards 2A(1)(B)(C), students may be expected to analyze problem situations that involve inverse variation. Direct variation has been moved to Algebra I: *Linear functions, equations, and inequalities* A(2)(D)	

	Old TEKS: Exponential and logarithmic functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(11)(A) **Exponential and logarithmic functions.** The student formulates equations and inequalities based on exponential and logarithmic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to develop the definition of logarithms by exploring and describing the relationship between exponential functions and their inverses.**	2A(2)(C) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and understand the relationship between a function and its inverse. **The student is expected to describe and analyze the relationship between a function and its inverse (quadratic and square root, logarithmic and exponential), including the restriction(s) on domain, which will restrict its range.** 2A(5)(C) **Exponential and logarithmic functions and equations.** The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. **The student is expected to rewrite exponential equations as their corresponding logarithmic equations and logarithmic equations as their corresponding exponential equations.**	The revised SE 2A(2)(C) adds specificity to "develop" with "describe and analyze." The restrictions on domains and ranges is explicitly stated in the revised SE 2A(2)(C). Revised SE 2A(5)(C) addresses developing the definition of a logarithm. When paired with revised content SE 2A(2)(C), students are rewriting exponential equations to explore the relationship between an exponential function and its inverses. Specificity has been added to write the corresponding equations when given either a logarithmic or an exponential equation.	
●	2A(11)(B) **Exponential and logarithmic functions.** The student formulates equations and inequalities based on exponential and logarithmic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to use the parent functions to investigate, describe, and predict the effects of parameter changes on the graphs of exponential and logarithmic functions, describe limitations on the domains and ranges, and examine asymptotic behavior.**	2A(5)(A) **Exponential and logarithmic functions and equations.** The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. **The student is expected to determine the effects on the key attributes on the graphs of $f(x) = b^x$ and $f(x) = log_b(x)$ where b is 2, 10 and e, when $f(x)$ is replaced by $af(x)$, $f(x) + d$, and $f(x - c)$ for specific positive and negative real values of a, c, and d.** 2A(2)(A) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to graph the functions $f(x) = \sqrt{x}$, $f(x) = \frac{1}{x}$, $f(x) = x^3$, $f(x) = \sqrt[3]{x}$, $f(x) = b^x$, $f(x) = \lvert x \rvert$, and $f(x) = log_b(x)$ where b is 2, 10 and e, and, when applicable, analyze the key attributes such as domain, range, intercepts, symmetries, asymptotic behavior, and maximum and minimum given an interval.**	Specificity has been added to limit values for "b" to 2, 10, and e. Specificity has been added to indicate the use of function notation and specifics parameter changes. Students may be expected to graph and analyze functions where multiple parameter changes have been applied. Specificity has been added to the key attributes of the function.	

	Old TEKS: Exponential and logarithmic functions	Current TEKS (2012)	Supporting Information	Notes
●	2A(11)(C) **Exponential and logarithmic functions.** The student formulates equations and inequalities based on exponential and logarithmic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine the reasonable domain and range values of exponential and logarithmic functions, as well as interpret and determine the reasonableness of solutions to exponential and logarithmic equations and inequalities.**	2A(5)(D) **Exponential and logarithmic functions and equations.** The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. **The student is expected to solve exponential equations of the form $y = ab^x$ where a is a nonzero real number and b is greater than zero and not equal to one and single logarithmic equations having real solutions.**	Specificity has been added to include logarithmic equations with real solutions. When the revised SE 2A(5)(D) is paired with the process standard 2A(1)(B), students are expected to determine the reasonableness of the solutions to exponential and logarithmic equations. Revised SE 2A(2)(A) includes the domain and range values for exponential and logarithmic equations.	
		2A(5)(E) **Exponential and logarithmic functions and equations.** The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. **The student is expected to determine the reasonableness of a solution to a logarithmic equation.**		
		2A(2)(A) **Attributes of functions and their inverses.** The student applies mathematical processes to understand that functions have distinct key attributes and to understand the relationship between a function and its inverse. **The student is expected to graph the functions $f(x) = \sqrt{x}$, $f(x) = \frac{1}{x}$, $f(x) = x^3$, $f(x) = \sqrt[3]{x}$, $f(x) = b^x$, $f(x) = \lvert x \rvert$, and $f(x) = log_b(x)$ where b is 2, 10 and e, and, when applicable, analyze the key attributes such as domain, range, intercepts, symmetries, asymptotic behavior, and maximum and minimum given an interval.**	Determining the reasonableness of solutions to exponential and logarithmic inequalities is not included in the revised TEKS for Algebra II.	
●	2A(11)(D) **Exponential and logarithmic functions.** The student formulates equations and inequalities based on exponential and logarithmic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine solutions of exponential and logarithmic equations using graphs, tables, and algebraic methods.**	2A(5)(D) **Exponential and logarithmic functions and equations.** The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. **The student is expected to solve exponential equations of the form $y = ab^x$ where a is a nonzero real number and b is greater than zero and not equal to one and single logarithmic equations having real solutions.**	The revised SE builds on exponential functions from Algebra I where students graph, write and predict from exponential functions in given situations. Solving exponential and logarithmic equations is introduced in Algebra II. When paired with the mathematical process standards 2A(1)(B)(C)(D), students may be expected to use graphs, tables, and algebraic methods to solve exponential and logarithmic equations.	

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	Old TEKS: Exponential and logarithmic functions	Current TEKS (2012)	Supporting Information	Notes
–	2A(11)(E) **Exponential and logarithmic functions.** The student formulates equations and inequalities based on exponential and logarithmic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to determine solutions of exponential and logarithmic inequalities using graphs and tables.**		Determining solutions to exponential and logarithmic inequalities is not included in the revised TEKS for Algebra II.	
O	2A(11)(F) **Exponential and logarithmic functions.** The student formulates equations and inequalities based on exponential and logarithmic functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. **The student is expected to analyze a situation modeled by an exponential function, formulate an equation or inequality, and solve the problem.**	2A(5)(B) **Exponential and logarithmic functions and equations.** The student applies mathematical processes to understand that exponential and logarithmic functions can be used to model situations and solve problems. **The student is expected to formulate exponential and logarithmic equations that model real-world situations including exponential relationships written in recursive notation.**	Specificity has been added in the revised SE by stating exponential relationships written in recursive notation. When paired with the mathematical process standards 2A(1)(A)(B), students are expected to formulate logarithmic and exponential equations to solve problems. Exponential inequalities have been removed from the SEs.	

Old TEKS	Current TEKS (2012): Mathematical process standards	Supporting Information	Notes
+	2A(6)(A) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to analyze the effect on the graphs of $f(x) = x^3$ and $f(x) = \sqrt[3]{x}$ when *f(x)* is replaced by *af(x)*, *f(bx)*, *f(x - c)*, and *f(x) + d* for specific positive and negative real values of *a*, *b*, *c*, and *d*.**	The revised SEs include two new functions: $f(x) = x^3$ and $f(x) = \sqrt[3]{x}$. Students are expected to continue analyzing parameter changes to these new functions.	
+	2A(6)(B) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve cube root equations that have real roots.**	Students are expected to solve cube root equations with real roots.	
	2A(6)(C) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to analyze the effect on the graphs of *f(x)* = |*x*| when *f(x)* is replaced by *af(x)*, *f(bx)*, *f(x-c)*, and *f(x) + d* for specific positive and negative real values of *a*, *b*, *c*, and *d*.**		
+	2A(6)(D) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to formulate absolute value linear equations.**		

Old TEKS	Current TEKS (2012): Mathematical process standards	Supporting Information	Notes
+	2A(6)(E) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve absolute value linear equations.**		
+	2A(6)(F) **Cubic, cube root, absolute value and rational functions, equations, and inequalities.** The student applies mathematical processes to understand that cubic, cube root, absolute value and rational functions, equations, and inequalities can be used to model situations, solve problems, and make predictions. **The student is expected to solve absolute value linear inequalities.**		
+	2A(7)(A) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to add, subtract, and multiply complex numbers.**	The revised SE includes the operations of adding, subtracting, and multiplying complex numbers.	
+	2A(7)(B) **Number and Algebraic Methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to add, subtract, and multiply polynomials.**	In Algebra I, students are expected to add, subtract, and multiply polynomials of degree one and degree two: *Number and algebraic methods* A(10)(A) A(10)(B) Multiplying polynomials is limited to polynomial factors with degree less than four resulting in a product that has a degree no greater than six.	
+	2A(7)(C) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to determine the quotient of a polynomial of degree three and of degree four when divided by a polynomial of degree one and of degree two.**	In Algebra I, students are expected to divide polynomials of degree one and degree two: *Number and algebraic methods* A(10)(C) Methods of division may include long division or synthetic division.	

Old TEKS	Current TEKS (2012): Mathematical process standards	Supporting Information	Notes
+	2A(7)(D) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to determine the linear factors of a polynomial function of degree three and of degree four using algebraic methods.**	In Algebra I, students are expected to factor trinomials and binomials with the structure of the difference of two squares: *Number and algebraic methods* A(10)(D) A(10)(E) The revised SE builds on Algebra I by extending factoring to polynomials of degree three and degree four with linear factors. Methods of factoring may include common monomial factoring, factoring by grouping, or factoring using special products.	
+	2A(7)(E) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to determine linear and quadratic factors of a polynomial expression of degree three and of degree four, including factoring the sum and difference of two cubes and factoring by grouping.**		
+	2A(7)(G) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to rewrite radical expressions that contain variables to equivalent forms.**	In Algebra I, students are expected to simplify numerical radical expressions involving square roots: *Number and algebraic methods* A(11)(A)	
+	2A(7)(H) **Number and algebraic methods.** The student applies mathematical processes to simplify and perform operations on expressions and to solve equations. **The student is expected to solve equations involving rational exponents.**		

Old TEKS	Current TEKS (2012): Mathematical process standards	Supporting Information	Notes
+	2A(1)(A) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.**	The focus is on application in three areas: everyday life, society, and the workplace. This SE, when paired with a revised content SE, allows for increased relevance through connections within and outside mathematics. *Example*: When paired with revised content SE 2A(4)(A), the student maybe expected to write the quadratic function when given three specified points in the plane and then use this quadratic function to solve a problem arising in everyday life, society, and the workplace.	
+	2A(1)(B) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **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.**	This process standard provides continuity through application of the same problem-solving model included in the TEKS for kindergarten through grade 8.	
+	2A(1)(C) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **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.**	The phrase "as appropriate" indicates that students are assessing which tool to apply rather than trying only one or all of those listed. *Example:* When paired with revised content SE 2A(8)(A), the student is expected to choose the appropriate tool to determine the curve of best fit.	
+	2A(1)(D) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.**	Student communication is expected to address three areas: mathematical ideas, reasoning, and implications of these ideas and reasoning. Specificity is added to the means of communication. Communication can be through the use of symbols, diagrams, graphs, or language. The phrase "as appropriate" implies that students are assessing which communication tool to apply rather than trying only one or all of those listed. The use of multiple representations includes translating and making connections among the representations. *Example*: When paired with revised content SE 2A(4)(C), the student is expected to communicate the relationship between various parameter changes to the square root function using symbols, diagrams, graphs, and language as appropriate.	

Old TEKS	Current TEKS (2012): Mathematical process standards	Supporting Information	Notes
+	2A(1)(E) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to create and use representations to organize, record, and communicate mathematical ideas.**	Students are expected to use representations for three purposes: to organize, record, and communicate mathematical ideas. Representations include verbal, graphical, tabular, and algebraic representations. As students create and use representations, they will evaluate the effectiveness of their representations to ensure that they are communicating mathematical ideas with clarity. *Example*: When paired with revised content SE 2A(8)(C), students may need to create a graph or a table in order to organize the data, determine which model fits, and communicate their results.	
+	2A(1)(F) **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.**	Students are expected to analyze relationships and to form connections with mathematical ideas. Students may form conjectures about mathematical representations based on patterns or sets of examples and non-examples. Forming connections with mathematical ideas extends past conjecturing to include verification through a deductive process. *Example*: When paired with revised content SE 2A(2)(C), students look for and analyze the mathematical relationship between the restrictions on the domains and ranges of inverse functions.	
+	2A(1)(G) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.**	Students are expected to speak and write with precise mathematical language to explain and justify their thinking. *Example*: When paired with revised content SE 2A(4)(G), the student is expected to justify in precise mathematical language why some results are extraneous.	