

Course	Conceptual Category	Domain	Cluster Code	Cluster Statement		Standard	Keep or Propose Change	Type of Change: Removed, Broken Up, Re-written	Quality Standards Rule	Reason for Proposed Change
Algebra I	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.1	A.CED.1 Create equations and inequalities in one variable arising from situations in which linear, quadratic, and exponential functions are appropriate and use them to solve problems. (Uses Modeling) Include equations arising from linear and quadratic functions, and simple rational and exponential functions.	change	rewritten	1 - clarity	added the type of functions for Alg 1
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.H	Understand solving equations as a process of reasoning and explain the reasoning.	A.REI.1	A.REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	change		3	
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.K	Represent and solve equations and inequalities graphically.	A.REI.10	A.REI.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	keep			
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.K	Represent and solve equations and inequalities graphically.	A.REI.12	A.REI.12 Graph the solutions to a linear inequality (strict or inclusive) in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and; graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	change	rewritten	clarity #3	clear language
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.I	Solve equations and inequalities in one variable.	A.REI.3	A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	keep			
Algebra I		Reasoning with Equations and Inequalities (A.REI)	A.REI.I	Solve equations and inequalities in one variable.	A.REI.4i	A.REI.4 Solve quadratic equations in one variable. 4a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. 4b. Derive the quadratic formula from this form completing the square. 4c. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula, and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a + bi$ for real numbers a and b.	change	remove part	connections -2	Clarify that solving of quadratics for Algebra 1 is by factoring, graphing, and completing the square. Deriving the quadratic formula and solving with the formula will be placed into Alg 2.
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.J	Solve systems of equations.	A.REI.5	A.REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions. Understand the principles of the elimination method.	change	rewritten	1 - clarity	The intent of the standard is to understand conceptually why the elimination method works.
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.J	Solve systems of equations.	A.REI.6	A.REI.6 Solve systems of linear equations exactly and approximately by graphing (e.g., with graphs), focusing on pairs of linear equations in two variables.	change	rewritten	1 -clarity	We included the specific type of graphing.
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.J	Solve systems of equations.	A.REI.7	A.REI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$	keep			
Algebra I	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.K	Represent and solve equations and inequalities graphically.	A.REI.12	A.REI.12 Graph the solutions to a linear inequality (strict or inclusive) in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and; graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	change	rewritten	clarity #3	clear language
Algebra I	Algebra	Seeing Structure in Expressions (A.SSE)	A.SSE.B	Write expressions in equivalent forms to solve problems.	A.SSE.3	A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. (Uses Modeling) 3a. Factor a quadratic expression to reveal the zeros of the function it defines. 3b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. 3c. Use the properties of exponents to transform write equivalent expressions for exponential functions.	change		1-clarity	Language is more specific
Algebra I	Functions	Building Functions (F.BF)	F.BF.D	Build a function that models a relationship between two quantities.	F.BF.2	F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula and use them to model situations, and translate between the two forms. (Uses Modeling)	change	removed	1 - clarity	removed last part that is repetitive

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Algebra I	Functions	Interpreting Functions (F. IF)	F.IF.A	Understand the concept of a function and use function notation.	F.IF.1 F.IF.1 Understand that a function maps each element of from one set (called the domain) to exactly one element of another set (called the range.) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x . The graph of f is the graph of the equation $y = f(x)$.	change	rewritten	Clarity # 3	removed excessive language that repeated itself.
Algebra I	Functions	Interpreting Functions (F. IF)	F.IF.A	Understand the concept of a function and use function notation.	F.IF.2 F.IF.2 Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	change	remove part	Clarity #3	for inputs in their domains does not add clarity
Algebra I	Functions	Interpreting Functions (F. IF)	F.IF.A	Understand the concept of a function and use function notation.	F.IF.3 F.IF.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by $f(0) = f(1) = 1$, $f(n+1) = f(n) + f(n-1)$ for $n > 1$.	change	remove example	clarity # 3	the example may limit the type of sequencents
Algebra I and Algebra-II	Functions	Interpreting Functions (F. IF)	F.IF.B	Interpret functions that arise in applications in terms of the context.	F.IF.4i F.IF.4 For functions, including linear, quadratic, and exponential , that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities; and sketch graphs showing key features given a verbal description of the relationship. (Uses Modeling) <i>Key features include: intercepts; intervals where the function is increasing or decreasing, including using interval notation; positive, or negative, relative maximums and minimums; symmetries; end-behavior; and periodicity.*</i>	change	add and remove parts	clarity #3	added the type of functions an removed the key features that match those functions.
Algebra I and Algebra-II	Functions	Interpreting Functions (F. IF)	F.IF.B	Interpret functions that arise in applications in terms of the context.	F.IF.5i F.IF.5 Relate the domain of a function to its graph and find an appropriate domain in the context of the problem. where applicable, to the quantitative relationship it describes. (Uses Modeling)	keep			
Algebra I and Algebra II	Functions	Interpreting Functions (F. IF)	F.IF.B	Interpret functions that arise in applications in terms of the context.	F.IF.6 F.IF.6 Calculate and interpret the average rate of change of a function, both presented symbolically or and as from a table) over a specified interval. Estimate the rate of change from a graph. (Uses Modeling)	change		3	clarify language and meaning
Algebra I and Algebra-II	Functions	Interpreting Functions (F. IF)	F.IF.C	Analyze functions using different representations.	F.IF.7i F.IF.7 Graph parent functions and their transformations expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. (Uses Modeling) 7a. Graph linear, exponential , and quadratic functions and show intercepts, maxima, and minima. 7b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	change	remove parts from Algebra 2	clarity	remove the types of functions that belong in Algebra II
Algebra I and Algebra-II	Functions	Interpreting Functions (F. IF)	F.IF.C	Analyze functions using different representations.	F.IF.8 F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. 8a. Use the process of graphing , factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. 8b. Use the properties of exponents to Interpret expressions for exponential functions growth and decay . For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^t/10$, and classify them as representing exponential growth or decay.	change	rewritten	1-clarity	adding wording to clarify what methodes for quadratics
Algebra I and Algebra-II	Functions	Interpreting Functions (F. IF)	F.IF.C	Analyze functions using different representations.	F.IF.9i F.IF.9 Compare properties of two functions (linear, quadratic and exponential) each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.	change	rewritten	1 - clarity	added the type of functions
Algebra I	Functions	Linear, Quadratic, and Exponential Models (F. LE)	F.LE.F	Construct and compare linear and exponential models and solve problems.	F.LE.1 1.Distinguish between situations that can be modeled with linear functions and with exponential functions. a.Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. b.Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. c.Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	keep			

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Algebra I	Functions	Linear, Quadratic, and Exponential Models (F.LE)	F.LE.F	Construct and compare linear and exponential models and solve problems.	F.LE.2	F.LE.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table). (Uses Modeling)	keep			
Algebra I	Functions	Linear, Quadratic, and Exponential Models (F.LE)	F.LE.F	Construct and compare linear and exponential models and solve problems.	F.LE.3	F.LE.3 Observe Recognize , using graphs and tables, that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically, or (more generally) as a polynomial function. (Uses Modeling)	change	rewritten	1 - clarity	changed verb to Recognize instead of observe to raise the rigor.
Algebra I	Functions	Linear, Quadratic, and Exponential Models (F.LE)	F.LE.G	Interpret expressions for functions in terms of the situation they model.	F.LE.5	F.LE.5 Interpret the parameters in a linear or exponential function in terms of a context. (Uses Modeling)	keep			
Algebra I	Number and Quantity	Quantities (N.Q)	N.Q.C	Reason quantitatively and use units to solve problems.	N.Q.1	N.Q.1 Use unit analysis to understand and guide the process of solving to units as a way to understand problems and to guide the solution of multi-step problems; and choose and interpret units consistently in formulas; and choose and interpret the scale and the origin in graphs and data displays. (Uses modeling)	change	rewritten	clarity - 1	removed words and added words to make it read more clear
Algebra I	Number and Quantity	Quantities (N.Q)	N.Q.C	Reason quantitatively and use units to solve problems.	N.Q.2	N.Q.2 Define appropriate quantities for the purpose of descriptive modeling. (Uses modeling)	keep			
Algebra I	Number and Quantity	Quantities (N.Q)	N.Q.C	Reason quantitatively and use units to solve problems.	N.Q.3	N.Q.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. (Uses modeling)	keep			
Algebra I	Number and Quantity	The Real Number System (N.RN)	N.RN.A	Extend the properties of exponents to rational exponents	N.RN.1	N.RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to these values , allowing for a notation for radicals in terms of rational exponents.	change	removed words	clarity - 1	remove words to make it read more clear
Algebra I	Number and Quantity	The Real Number System (N.RN)	N.RN.A	Extend the properties of exponents to rational exponents.	N.RN.2	N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.	keep			
Algebra I	Number and Quantity	The Real Number System (N.RN)	N.RN.B	Use properties of rational and irrational numbers.	N.RN.3	N.RN.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	change	removed words	clarity - 1	remove words to make it read more clear
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.A	Summarize, represent, and interpret data on a single count or measurement variable.	S.ID.1	S.ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).	keep			
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.A	Summarize, represent, and interpret data on a single count or measurement variable.	S.ID.2	S.ID.2 Use statistics appropriate to the shape and context of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	change	re-written	1 - clarity	Include mode as measure of center and the context of the data.

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Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.A	Summarize, represent, and interpret data on a single count or measurement variable.	S.ID.3	S.ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	keep			
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.B	Summarize, represent, and interpret data on two categorical and quantitative variables.	S.ID.5	S.ID.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	keep			
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.B	Summarize, represent, and interpret data on two categorical and quantitative variables.	S.ID.6	S.ID.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. 6a. Determine the function (linear, quadratic, or exponential model) that best fits a set of data and use that function Fit a function to the data; use functions fitted to data to solve problems within the context of the data. 6b. Informally and using technology assess the fit of a function by plotting and analyzing residuals. 6c. Fit a linear function for a scatter plot that suggests a linear association.	change	rewritten	1 - clarity	Write to clarify finding a function to model a set of data.
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.C	Interpret linear models.	S.ID.7	S.ID.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	keep			
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.C	Interpret linear models.	S.ID.8	S.ID.8 Compute (using technology) and interpret the correlation coefficient of a linear fit.	keep			
Algebra I	Statistics and Probability	Interpreting Categorical and Quantitative Data (S.ID)	S.ID.C	Interpret linear models.	S.ID.9	S.ID.9 Distinguish between correlation and causation.	keep			
Algebra I and Algebra-II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.2i	A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (Uses Modeling)	keep			
Algebra I and Algebra-II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.3i	A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. (Uses Modeling) For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.	keep			
Algebra I and Algebra-II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.4i	A.CED.4 Rearrange Rewrite formulas to highlight a quantity of interest, using the same reasoning as in solving equations. (Uses Modeling) For example, rearrange Ohm's law $V=IR$ to highlight resistance R.	change	rewritten	1 - clarity	changed rearrange to rewrite
Algebra I and Algebra-II	Algebra	Seeing Structure in Expressions (A.SSE)	A.SSE.A	Interpret the structure of expressions.	A.SSE.1i	A.SSE.1 Interpret expressions that represent a quantity in terms of its context. (Uses Modeling) 1a. Interpret parts of an expression, such as terms, factors, and coefficients. 1b. Interpret complicated expressions by viewing one or more of their parts as a single entity in context .	change	rewritten	clarity - 1	Added in context so this does not get lost
Algebra I and Algebra-II	Algebra	Seeing Structure in Expressions (A.SSE)	A.SSE.A	Interpret the structure of expressions.	A.SSE.2i	A.SSE.2 Recognize and use the structure of an expression to identify ways to rewrite it.	change	added the words recognize	clarity -1	We feel they need to recognize the structure first and then student can use it to rewrite expressions.

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Algebra I	Functions	Building Functions (F.BF)	F.BF.D	Build a function that models a relationship between two quantities.	F.BF.1 F.BF.1 Write a function (linear, quadratic, and exponential) that describes a relationship between two quantities. (Uses Modeling) 1a. Determine an explicit expression, a recursive process, or steps for calculation from a context. (Uses modeling) 1b. Determine an explicit expression from a graph. (Uses modeling) 1c. Combine standard function types using arithmetic operations. (Uses modeling) 1c. (+) Compose functions. (Uses modeling)	change/added	rewritten	2 - connection	added Missing concept of writing a function expression from a graph.
Algebra I and Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.C	Perform arithmetic operations on polynomials.	A.APR.1 A.APR.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	change	rewritten	1 = clarity	
Algebra I and Algebra II	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.K	Represent and solve equations and inequalities graphically.	A.REI.11 A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., including but not limited to using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, quadratic and polynomial , rational, absolute value, exponential, and logarithmic functions. (Uses Modeling)	change	rewritten	1-clarity	clear language; added clarity with quadratic
Algebra I and Algebra II	Functions	Building Functions (F.BF)	F.BF.E	Build new functions from existing functions.	F.BF.3i F.BF.3 Identify the effect on the graph of replacing $f(x)$ (linear, exponential, quadratic) replaced with $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with contrasting cases and illustrate an explanation of the effects on the graph using technology.	change	rewritten	1 - clarity	added the type of functions
Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.D	Understand the relationship between zeros and factors of polynomials.	A.APR.2 A.APR.2 Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.	change	rewritten	1 - clarity	no need for the definition of the remainder theorem in the actual standards document
Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.D	Understand the relationship between zeros and factors of polynomials.	A.APR.3 A.APR.3 Identify zeros of polynomials by factoring , when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial. 1a. When suitable factorizations are available, use the zeros to construct a rough graph of the related function. 1b. When given a graph, use the zeros to construct a possible factorization of a polynomial.	change			
Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.E	Use polynomial identities to solve problems.	A.APR.4 A.APR.4 Prove polynomial identities and use them to describe numerical relationships.	change	remove	1 - clarity	repetitive concept covered in A.SSE.2
Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.E	Use polynomial identities to solve problems.	A.APR.5* A.APR.5 (+) Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n , where x and y are any numbers, with coefficients determined for example by Pascal's Triangle. (The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.)	change	remove	2-connection	move to fourth year
Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.F	Rewrite rational expressions.	A.APR.6 A.APR.6 Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, synthetic division , long division, box method or, for the more complicated examples, a computer algebra system.	change			
Algebra II	Algebra	Arithmetic with Polynomials and Rational Expressions (A.APR)	A.APR.F	Rewrite rational expressions.	A.APR.7* A.APR.7 (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.	change	remove	2 - connection	move to fourth year
Algebra II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.1 A.CED.1 Create equations and inequalities in one variable and use them to solve problems. (Uses Modeling)	change	add	2 - connection	added to Algebra 2

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Algebra II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.2ii A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. (Uses Modeling)	change	add	2 - connection	added to Algebra 2
Algebra II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.3ii A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. (Uses Modeling)	change	add	2 - connection	added to Algebra 2
Algebra II	Algebra	Creating Equations (A.CED)	A.CED.G	Create equations that describe numbers or relationships.	A.CED.4ii A.CED.4 Rewrite formulas to highlight a quantity of interest, using the same reasoning as in solving equations. (Uses Modeling)	change	add	2 - connection	added to Algebra 2
Algebra II	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.K	Represent and solve equations and inequalities graphically.	A.REI.11ii A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, including but not limited to using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions. (Uses Modeling)	change	added		
Algebra II	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.H	Understand solving equations as a process of reasoning and explain the reasoning.	A.REI.2 A.REI.2 Solve simple-rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. <i>Rational functions are limited to those whose numerators are of degree at most 1 and denominators of degree at most 2. Radical functions are limited to square roots or cube roots of at most quadratic polynomials.</i>	change			
Algebra II	Algebra	Reasoning with Equations and Inequalities (A.REI)	A.REI.I	Solve equations and inequalities in one variable.	A.REI.04ii A.REI.4 Select, justify and apply appropriate methods to solve quadratic equations in one variable. Recognize complex solutions and write them as a $+/- bi$ for real numbers a and b .	new			
Algebra II	Algebra	Seeing Structure in Expressions (A.SSE)	A.SSE.A	Interpret the structure of expressions.	A.SSE.1ii A.SSE.1 Interpret expressions that represent a quantity in terms of its context. (Uses Modeling) 1a. Interpret parts of an expression, such as terms, factors, and coefficients. 1b. Interpret <u>complicated expressions</u> by viewing one or more of their parts as a single entity in context.	change	added	added to Algebra 2	added to Algebra 2 Added in context so this does not get lost
Algebra II	Algebra	Seeing Structure in Expressions (A.SSE)	A.SSE.A	Interpret the structure of expressions.	A.SSE.2ii A.SSE.2 Recognize and use the structure of an expression to identify ways to rewrite it.	change	added	added to Algebra 2	added to Algebra 2
Algebra II	Algebra	Seeing Structure in Expressions (A.SSE)	A.SSE.B	Write expressions in equivalent forms to solve problems.	A.SSE.4 A.SSE.4 Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. (Uses Modeling)	change	remove	3 - connection	move to 4th year
Algebra II	Functions	Building Functions (F.BF)	F.BF.E	Build new functions from existing functions.	F.BF.3ii F.BF.3 Identify the effect on the graph of $f(x)$ replaced with $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with contrasting cases and illustrate an explanation of the effects on the graph using technology.	added	rewritten	1 - clarity	added the type of functions

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Algebra II	Functions	Building Functions (F.BF)	F.BF.E	Build new functions from existing functions.	F.BF.4 F.BF.4 Find inverse functions. 4a. Solve an equation for the independent variable of the form $f(x) = c$ for a simple a function f that has an inverse function and write an expression for the inverse. <i>For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for x (not equal) -1.</i> 4b. Verify by composition that one function is the inverse of another. (+) 4c. Read values of an inverse function from a graph or a table, given that the function has an inverse. (+)	added	moved	2 - connection	drop the plus symbol - connect inverse standards because it make sense.
Algebra II	Functions	Building Functions (F. BF)	F.BF.E	Build new functions from existing functions.	F.BF.5 F.BF.5 (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.	added	Added Alg. 2 standard	2-connection to year 4	developmentally appropriate
Algebra II	Functions	Interpreting Functions (F.IF)	F.IF.B	Interpret functions that arise in applications in terms of the context.	F.IF.4ii F.IF.4 For functions that model a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities and sketch graphs showing key features given a verbal description of the relationship. (Uses Modeling) <i>Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries (including even, odd, or neither); end behavior; and periodicity.*</i>	add standard to Algebra II	add standard to Algebra II		
Algebra II	Functions	Interpreting Functions (F.IF)	F.IF.B	Interpret functions that arise in applications in terms of the context.	F.IF.5ii F.IF.5 Relate the domain of a function to its graph and find an appropriate domain in the context of the problem. (Uses Modeling)	add standard to Algebra II	add standard to Alg II		
Algebra II	Functions	Interpreting Functions (F.IF)	F.IF.C	Analyze functions using different representations.	F.IF.7ii F.IF.7 Graph parent functions and their transformations expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. (Uses Modeling) 7b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. 7c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. 7d. Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available and showing end behavior. 7e. Graph logarithmic functions, showing intercepts and end behavior. 7f. Graph trigonometric functions (sine and cosine), showing period, midline, and amplitude.	change	add the standard to Algebra II	clarity	identify the functions that belong in Algebra II
Algebra II	Functions	Interpreting Functions (F.IF)	F.IF.C	Analyze functions using different representations.	F.IF.9ii F.IF.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	change	Added Alg. 2 standard		
Algebra II	Functions	Linear, Quadratic, and Exponential Models (F. LE)	F.LE.F	Construct and compare linear and exponential models and solve problems.	F.LE.4 F.LE.4 For exponential models, express as a logarithm the solution to $ab^{ct} = d$ where a , c , and d are numbers and the base b is 2, 10, or e ; evaluate the logarithm using technology. (Uses Modeling)	keep			
Algebra II	Functions	Trigonometric Functions (F.TF)	F.TF.H	Extend the domain of trigonometric functions using the unit circle.	F.TF.1 F.TF.1 Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.	keep			

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Algebra II	Functions	Trigonometric Functions (F.TF)	F.TF.H	Extend the domain of trigonometric functions using the unit circle.	F.TF.2	F.TF.2 Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions (sine and cosine) to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.	change	rewritten	1 - clarity	added the type of functions
Algebra II	Functions	Trigonometric Functions (F.TF)	F.TF.I	Model periodic phenomena with trigonometric functions.	F.TF.5	F.TF.5 Choose trigonometric functions (sine and cosine) to model periodic phenomena with specified amplitude, frequency, and midline. (Uses Modeling)	change	rewritten	1- clarity	added the type of functions
Algebra II	Functions	Trigonometric Functions (F.TF)	F.TF.J	Prove and apply trigonometric identities.	F.TF.8	F.TF.8 Prove the Pythagorean identity $\sin^2(A) + \cos^2(A) = 1$ and use it to calculate trigonometric ratios.	keep			
Algebra II	Number and Quantity	The Complex Number System (N.CN)	N.CN.F	Use complex numbers in polynomial identities and equations.	N.CN.7	N.CN.7 Solve quadratic equations with real coefficients that have complex solutions.	keep			
Algebra II	Number and Quantity	The Complex Number System (N.CN)	N.CN.D	Perform arithmetic operations with complex numbers.	N.CN.1	N.CN.1 Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ where with a and b are real numbers.	change	rewritten	clarity - 1	removed words and added words to make it read more clear
Algebra II	Number and Quantity	The Complex Number System (N.CN)	N.CN.D	Perform arithmetic operations with complex numbers.	N.CN.2	N.CN.2 Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.	keep			
Algebra II	Number and Quantity	The Complex Number System (N.CN)	N.CN.F	Use complex numbers in polynomial identities and equations.	N.CN.8	N.CN.8 (+) Extend polynomial identities to the complex numbers.	moved to year 4			
Algebra II	Number and Quantity	The Complex Number System (N.CN)	N.CN.F	Use complex numbers in polynomial identities and equations.	N.CN.9	N.CN.9 (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.	moved to year 4			
Algebra II	Statistics and Probability	Making Inferences and Justifying Conclusions (S.IC)	S.IC.D	Understand and evaluate random processes underlying statistical experiments.	S.IC.1	S.IC.1 Understand statistics as a process for making inferences about population parameters based on a random sample from that population.	keep			
Algebra II	Statistics and Probability	Making Inferences and Justifying Conclusions (S.IC)	S.IC.D	Understand and evaluate random processes underlying statistical experiments.	S.IC.2	S.IC.2 Decide if Determine whether a specified model is consistent with results from a given data-generating process, e.g., by using simulation.	change		0 3	changed verb from decide to determine in order to make more measurable
Algebra II	Statistics and Probability	Making Inferences and Justifying Conclusions (S.IC)	S.IC.E	Make inferences and justify conclusions from sample surveys, experiments and observational studies.	S.IC.3	S.IC.3 Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.	keep			

