## Tulare Cunty Office of Education

## California Common Core State Standards Comparison - Grade 8 \& Algebra I

## Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics.
5. Use appropriate tools strategically
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

| $\begin{gathered} \text { Current } \\ \text { CA Alg } \\ 1 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { CCCSS - } \\ \text { Grade } 7 \\ \text { Standards } \\ \hline \end{gathered}$ | CCCSS - Grade 8 Standards | CCCSS - Algebra I Standards | Notes |
| :---: | :---: | :---: | :---: | :---: |
| Alg 2.0 |  |  | Algebral- Number and Quantity <br> The Real Number System <br> Extend the properties of exponents to rational exponents. <br> A.N.RN.1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define $5^{1 / 3}$ to be the cube root of 5 because we want $\left(5^{1 / 3}\right)^{3}=$ $5\left(^{1 / 3}\right)^{3}$ to hold, so $\left(5^{1 / 3}\right)^{3}$ must equal 5. (Common Core Standard N-RN-1) |  |
| Alg 2.0 |  |  | A.N.RN.2. Rewrite expressions involving radicals and rational exponents using the properties of exponents. (Common Core Standard N-RN-2) |  |
| Alg 1.0 |  |  | Use properties of rational and irrational numbers. <br> A.N.RN.3. Understand informally that 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. (Common Core Standard N-RN-3) |  |
|  |  |  | Quantities $\star$ <br> A.N.Q.4. Define appropriate quantities for the purpose of descriptive modeling. (Common Core Standard NQ-2) |  |
|  | 7.NS. 4 | The Number System 8.NS <br> Know that there are numbers that are not rational, and approximate them by rational numbers. <br> 8.NS.1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. |  |  |

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| Alg 1.0 | 7.NS. 5 | 8.NS.2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., m2). For example, by truncating the decimal expansion of $\sqrt{ } 2$, show that $\sqrt{ } 2$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations. |  |  |
| Alg 2.0 |  | Expressions and Equations 8.EE <br> Work with radicals and integer exponents. <br> 8.EE.1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^{2}$ $\times 3^{-5}=3^{-3}=1 / 3^{3}=1 / 27$. | Expressions and Equations 8.EE <br> Work with radicals and integer exponents. <br> A.EE. 1 Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^{2}$ $\times 3^{-5}=3^{-3}=1 / 3^{3}=1 / 27$. |  |
| Alg 2.0 | 7.EE. 5 | 8.EE.2. Use square root and cube root symbols to represent solutions to equations of the form $x^{2}=p$ and $x^{3}=p$, where $p$ is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{ } 2$ is irrational. |  |  |
|  | 7.EE. 6 | 8.EE.3. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as $3 \times 10^{8}$ and the population of the world as $7 \times 10^{9}$, and determine that the world population is more than 20 times larger. |  |  |
|  |  | 8.EE.4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. | A.EE. 2 Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. |  |
| Alg 6.0 |  | Understand the connections between proportional relationships, lines, and linear equations. <br> 8.EE.5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance time graph to a distance-time equation to determine which of two moving objects has greater speed. | Understand the connections between proportional relationships, lines, and linear equations. <br> A.EE. 3 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance time graph to a distance-time equation to determine which of two moving objects has greater speed. |  |

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| :---: | :---: | :---: | :---: | :---: |
| Alg 5.0 |  | 8.EE.6. Use similar triangles to explain why the slope $m$ is the same between any two distinct points on a nonvertical line in the coordinate plane; derive the equation $y=m x$ for a line through the origin and the equation $y=m x+b$ for a line intercepting the vertical axis at $b$. | A.EE. 4 Use similar triangles to explain why the slope $m$ is the same between any two distinct points on a nonvertical line in the coordinate plane; derive the equation $y=m x$ for a line through the origin and the equation $y=m x+b$ for a line intercepting the vertical axis at $b$. |  |
| $\begin{aligned} & \hline \text { Alg } 4.0 \\ & \text { Alg } 5.0 \end{aligned}$ |  | Analyze and solve linear equations and pairs of simultaneous linear equations. <br> 8.EE.7. Solve linear equations in one variable. <br> a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x=a, a=a$, or $a=b$ results (where $a$ and $b$ are different numbers). <br> b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. | Analyze and solve linear equations and pairs of simultaneous linear equations. <br> A.EE. 7 Solve linear equations in one variable. <br> a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x=a, a=a$, or $a=b$ results (where $a$ and $b$ are different numbers). <br> b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. |  |
| Alg 9.0 |  | 8.EE.8. Analyze and solve pairs of simultaneous linear equations. <br> a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. <br> b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, $3 x+2 y=5$ and $3 x+2 y=6$ have no solution because $3 x+$ $2 y$ cannot simultaneously be 5 and 6 . <br> c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair. | A.EE. 8 Analyze and solve pairs of simultaneous linear equations. <br> a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. <br> b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, $3 x+2 y=5$ and $3 x+2 y=6$ have no solution because $3 x+$ $2 y$ cannot simultaneously be 5 and 6 . <br> c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair. |  |

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|  |  |  | Seeing Structure in Expressions <br> Interpret the structure of expressions <br> A.A.SSE.7. Interpret expressions that represent a quantity in terms of its context. $\star$ (Common Core Standard A-SSE-1) <br> a. Interpret parts of an expression, such as terms, factors, and coefficients. (Common Core Standard A-SSE-1a) <br> b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret $P(1+r)^{n}$ as the product of $P$ and a factor not depending on $P$. (Common Core Standard A-SSE-1b) |  |
| Alg 11.0 |  |  | A.A.SSE.8. Use the structure of an expression to identify ways to rewrite it. For example, see $x^{4}-y^{4}$ as $\left(x^{2}\right)^{2}-\left(y^{2}\right)^{2}$, thus recognizing it as a difference of squares that can be factored as $\left(x^{2}-y^{2}\right)\left(x^{2}+y^{2}\right)$. (Common Core Standard A-SSE-2) <br> a. Use the distributive property to express a sum of terms with a common factor as a multiple of a sum of terms with no common factor. For example, express $x y^{2}+x^{2} y$ as $x y(y+x)$. (Common Core Standard A-SSE-2a) <br> b. Use the properties of operations to express a product of a sum of terms as a sum of products. For example, use the properties of operations to express $(x+5)(3-x+c)$ as $-x^{2}+$ $c x-2 x+5 c+15$. (Common Core Standard A-SSE-2b) |  |
| $\begin{aligned} & \hline \text { Alg } 11.0 \\ & \text { Alg } 21.0 \end{aligned}$ |  |  | Write expressions in equivalent forms to solve problems A.A.SSE.9. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. $\star$ (Common Core Standard A-SSE-3) <br> a. Factor a quadratic expression to reveal the zeros of the function it defines. (Common Core Standard A-SSE-3a) <br> b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. (Common Core Standard A-SSE-3b) |  |
| Alg 1.0 Alg 10.0 |  |  | Arithmetic with Polynomials and Rational Expressions Perform arithmetic operations on polynomials <br> A.A.APR.10. 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, and divide polynomials by monomials. Solve problems in and out of context. (Common Core Standard A-APR-1) |  |

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| Alg 3.0 |  |  | Creating Equations $\star$ <br> Create equations that describe numbers or relationships <br> A.A.CED.11. Create equations and inequalities in one variable including ones with absolute value and use them to solve problems in and out of context, including equations arising from linear functions. |  |
|  |  |  | A.A.CED.12. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales (limit to linear and quadratic). (Common Core Standard A-CED-2) |  |
| $\begin{aligned} & \hline \text { Alg } 5.0 \\ & \text { Alg } 9.0 \end{aligned}$ |  |  | A.A.CED.13. 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. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods. (Common Core Standard A-CED-3) |  |
|  |  |  | A.A.CED.14. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V=I R$ to highlight resistance R. (Common Core Standard A-CED-4) |  |
| Alg 5.0 |  |  | Reasoning with Equations and Inequalities <br> Solve equations and inequalities in one variable <br> A.A.REI.15. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. (Common Core Standard A-REI-3) |  |
| Alg 11.0 <br> Alg 14.0 <br> Alg 19.0 <br> Alg 20.0 |  |  | A.A.REI.16. Solve quadratic equations in one variable. (Common Core Standard A-REI-4) <br> a. 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. Derive the quadratic formula from this form. (Common Core Standard A-REI-4a) <br> b. 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 $a \pm b i$ for real numbers $a$ and $b$. (Common Core Standard A-REI-4b) |  |

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| Alg 5.0 <br> Alg 9.0 |  |  | Solve systems of equations <br> A.A.REI.17. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. (Common Core Standard A-REI6) |  |
| $\begin{aligned} & \hline \text { Alg } 6.0 \\ & \text { Alg } 9.0 \end{aligned}$ |  |  | Represent and solve equations and inequalities graphically A.A.REI.18. 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). (Common Core Standard AREI- 10) |  |
| Alg 6.0 <br> Alg 9.0 |  |  | A.A.REI.19. Graph the solutions to a linear inequality 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. (Common Core Standard AREI-12) |  |
| Alg 16.0 Alg 17.0 Alg 18.0 |  | Functions 8.F <br> Define, evaluate, and compare functions. <br> 8.F.1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.( Function notation is not required in Grade 8.) | Functions 8.F <br> Define, evaluate, and compare functions. <br> A.F.1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.( Function notation is not required in Grade 8.) |  |
| Alg 16.0 Alg 17.0 Alg 18.0 |  | 8.F.2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change. | A.F.2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change. |  |
| Alg 16.0 |  | 8.F.3. Interpret the equation $y=m x+b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A=$ s2 giving the area of a square as a function of its side length is not linear because its graph contains the points $(1,1),(2,4)$ and (3,9), which are not on a straight line. | A.F.3. Interpret the equation $y=m x+b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A=$ s2 giving the area of a square as a function of its side length is not linear because its graph contains the points $(1,1),(2,4)$ and ( 3,9 ), which are not on a straight line. |  |

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| Alg 16.0 |  | Use functions to model relationships between quantities. 8.F.4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two $(x, y)$ values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values. | Use functions to model relationships between quantities. A.F.4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two $(x, y)$ values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values. |  |
| Alg 18.0 |  | 8.F.5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. | A.F.5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. |  |
|  |  |  | Interpreting Functions <br> Interpret functions that arise in applications in terms of the context <br> A.F.IF.6. For a function 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. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. $\star$ (Common Core Standard F-IF-4) |  |
| Alg 17.0 <br> Alg 18.0 |  |  | A.F.IF.7. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function $h(n)$ gives the number of personhours it takes to assemble $n$ engines in a factory, then the positive integers would be an appropriate domain for the function. $\star$ (Common Core Standard F-IF-5) |  |
| Alg 6.0 Alg 21.0 |  |  | Analyze functions using different representations <br> A.F.IF.8. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. $\star$ (Common Core Standard F-IF-7) <br> a. Graph linear and quadratic functions and show intercepts, maxima, and minima. (Common Core Standard F-IF-7a) |  |

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| Alg 14.0 Alg 21.0 Alg 22.0 |  |  | A.F.IF.9. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. (Common Core Standard F-IF-8) <br> a. Use the process of 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. (Common Core Standard F-IF-8a) |  |
|  |  |  | Building Functions <br> Build a function that models a relationship between two quantities <br> A.F.BF.10. Write a function that describes a relationship between two quantities. $\star$ (Common Core Standard F-BF-1) <br> a. Determine an explicit expression, a recursive process, or steps for calculation from a context. (Common Core Standard F-BF-1a) |  |
|  |  |  | Build new functions from existing functions <br> A.F.BF.11. Identify the effect on the graph of replacing $f(x)$ by $f(x)+k, k f(x), f(k x)$, and $f(x+k)$ for specific values of $k$ (both positive and negative); find the value of $k$ given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them. (Common Core Standard F-BF-3) |  |
|  |  |  | Linear, Quadratic, and Exponential Models $\star$ Interpret expressions for functions in terms of the situation they model <br> A.F.LE.12. Interpret the parameters in a linear or exponential function in terms of a context. (Common Core Standard F-LE-5) |  |
| Alg 23.0 |  |  | A.F.LE.13. Apply quadratic equations to physical problems, such as the motion of an object under the force of gravity. (CA Standard A-23) |  |
|  |  | Geometry 8.G <br> Understand congruence and similarity using physical models, transparencies, or geometry software. <br> 8.G.1. Verify experimentally the properties of rotations, reflections, and translations: <br> a. Lines are taken to lines, and line segments to line segments of the same length. <br> b. Angles are taken to angles of the same measure. <br> c. Parallel lines are taken to parallel lines. | Geometry 8.G <br> Understand congruence and similarity using physical models, transparencies, or geometry software. <br> A.G.1. Verify experimentally the properties of rotations, reflections, and translations: <br> a. Lines are taken to lines, and line segments to line segments of the same length. <br> b. Angles are taken to angles of the same measure. <br> c. Parallel lines are taken to parallel lines. |  |

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|  |  | 8.G.2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. | A.G.2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. |  |
|  |  | 8.G.3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. | A.G.3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. |  |
|  |  | 8.G.4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. | A.G.4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. |  |
|  |  | 8.G.5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so. | A.G.5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so. |  |
|  |  | Understand and apply the Pythagorean Theorem. 8.G.6. Explain a proof of the Pythagorean Theorem and its converse. | Understand and apply the Pythagorean Theorem. <br> A.G.6. Explain a proof of the Pythagorean Theorem and its converse. |  |
|  |  | 8.G.7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. | A.G.7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. |  |
|  |  | 8.G.8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. | A.G.8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. |  |
|  | $7 . \mathrm{G.7}$ | Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres. <br> 8.G.9. Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems. |  |  |

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| Alg 8.0 |  |  | Expressing Geometric Properties with Equations Use coordinates to prove simple geometric theorems algebraically <br> A.G.GPE.9. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point). (Common Core Standard G-GPE-5) |  |
|  |  | Statistics and Probability 8.SP Investigate patterns of association in bivariate data. 8.SP.1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. | Statistics and Probability 8.SP <br> Investigate patterns of association in bivariate data. <br> A.SP.1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. |  |
|  |  | 8.SP.2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. | A.SP.2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. |  |
|  |  | 8.SP.3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of $1.5 \mathrm{~cm} / \mathrm{hr}$ as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height. | A.SP.3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. For example, in a linear model for a biology experiment, interpret a slope of $1.5 \mathrm{~cm} / \mathrm{hr}$ as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height. |  |
|  |  | 8.SP.4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores? | A.SP.4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores? |  |

## Tulare Cunty Office of Education

Jim vidak, county superintendentof schools
California Common Core State Standards Comparison - Grade 8 \& Algebra I

| Current CA Alg 1 | $\begin{gathered} \hline \text { CCCSS - } \\ \text { Grade } 7 \\ \text { Standards } \end{gathered}$ | CCCSS - Grade 8 Standards | CCCSS - Algebra I Standards | Notes |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Alg } 24.0 \\ \text { Alg } 24.3 \end{gathered}$ |  |  | Constructing Viable Arguments <br> A.CVA.1. Use and know simple aspects of a logical argument. <br> (California Algebra I, Standard 24.0) <br> a. Use counterexamples to show that an assertion is false and recognize that a single counterexample is sufficient to refute an assertion. (California Algebra I, Standard 24.3) |  |
| $\begin{aligned} & \hline \text { Alg } 25.0 \\ & \text { Alg } 25.1 \\ & \text { Alg } 25.2 \\ & \text { Alg } 25.3 \end{aligned}$ |  |  | A.CVA.2. Use properties of the number system to judge the validity of results, to justify each step of a <br> procedure, and to prove or disprove statements: (California Algebra I, Standard 25.0) <br> a. Use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions. (California Algebra I, Standard 25.1) <br> b. Judge the validity of an argument according to whether the properties of the real number system and the order of operations have been applied correctly at each step. (California Algebra I, Standard 25.2) <br> c. Given a specific algebraic statement involving linear, quadratic, or absolute value expressions or equations or inequalities, determine whether the statement is true sometimes, always, or never. (California Algebra I, Standard 25.3) |  |
| Alg 7.0 |  |  |  |  |
| Alg 12.0 |  |  |  |  |
| Alg 13.0 |  |  |  |  |
| Alg 15.0 |  |  |  |  |
| Alg 24.1 |  | Mathematical Practice 3 - Construct viable arguments and critique the reasoning of others | Mathematical Practice 3 - Construct viable arguments and critique the reasoning of others |  |
| Alg 24.2 |  | Mathematical Practice 3 - Construct viable arguments and critique the reasoning of others | Mathematical Practice 3 - Construct viable arguments and critique the reasoning of others |  |

