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| **Standard** | **Mastery** | **Statements** |
| A.CED.1 |  | * Create linear and exponential equations and inequalities in one variable and use them in a contextual situation to solve problems. |
| A.CED.2 |  | * Create equations in two or more variables to represent relationships between quantities. * Graph equations in two variables on a coordinate plane and label the axes and scales. |
| A.CED.3 |  | * Represent & Interpret constraints by linear equations & inequalities. |
| A.CED.4 |  | * Solve multi-variable formulas or literal equations, for a specific variable. |
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| A.REI.1 |  | * Assuming an equation has a solution, construct a convincing argument that justifies each step in the solution process. |
| A.REI.3 |  | * Solve linear equations in one variable, including coefficients represented by letters. * Solve linear inequalities in one variable, including coefficients represented by letters. |
| A.REI.5 |  | * Solve systems of equations using the elimination method (sometimes called linear combinations). * Solve a system of equations by substitution (solving for one variable in the first equation and substituting it into the second equation). |
| A.REI.6 |  | * Solve systems of equations using graphs. |
| A.REI.10 |  | * Solve systems of linear equations exactly and approximately. |
| A.REI.11 |  | * Understand the set of all solutions plotted on the coordinate plane. |
| A.REI.12 |  | * Graph the solutions to a linear inequality in two variables as a half-plane, excluding the boundary for non-inclusive inequalities. * Graph the solution set to a system of linear inequalities in two variables as the intersection of their corresponding half-planes. |
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| F.BF.1 |  | * Write a function that describes a relationship between two quantities. |
| F.BF.1a |  | * Determine an explicit expression and the recursive process (steps for calculation) from context. |
| F.BF.2 |  | * Write arithmetic recursively and explicitly, use them to model situations, and translate between the two forms. Connect arithmetic sequences to linear functions. |
| F.IF.1 |  | * Understand that a function from one set (the input, called the domain) to another set (the output, called the range) assigns to each element of the domain exactly one element of the range. |
| 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. |
| F.IF.3 |  | * Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. |
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| F.IF.4 |  | * Using tables, graphs, and verbal descriptions, interpret the key characteristics of a function which models the relationship between two quantities. * Sketch a graph showing key features including: intercepts; interval where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior. |
| F.IF.5 |  | * Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. |
| F.IF.6 |  | * Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. |
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| F.IF.7 |  | * Graph functions expressed algebraically and show key features of the graph both by hand and by using technology. |
| F.IF.7a |  | * Graph linear functions to show intercepts, maxima, and minima (as determined by the function or by context). |
| F.IF.9 |  | * Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one function and an algebraic expression for another, say which has the larger maximum. |