| Algebra I Standards Tracker |  |  |  |  |  |  |  |
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| *Essential Standards are denoted with an (E) and colored gray* |  |  |  |  |  |  |  |
| Standard | Description | m1 | m 2 | m3 | m4 | m5 | m6 |
| Number Systems, Expressions, and Functions |  |  |  |  |  |  |  |
| AI.NF. 1 | Simplify square roots of monomial algebraic expressions, including non-perfect squares | X |  |  |  |  |  |
| AI.NF. 2 | Add, subtract, and multiply polynomials. Divide polynomials by monomials. Use these operations to rewrite algebraic expressions in equivalent forms, and justify them with algebraic properties. (E) | X |  |  |  |  |  |
| AI.NF. 3 | Extend understanding of independent/dependent variables to encompass domain/range, as applied to relations using tables, graphs, verbal descriptions, and equations. (E) |  | X |  |  |  |  |
| AI.NF. 4 | Evaluate functions for given elements of the domain, and interpret statements in function notation in terms of a context. |  | X |  |  |  |  |
| AI.NF. 5 | Describe, qualitatively, the functional relationship between two quantities by analyzing key features of a graph. Sketch a graph that exhibits given key features of a function that has been verbally described, including intercepts, where the function is increasing or decreasing, where the function is positive or negative, and any relative maximum or minimum values. Identify the independent and dependent variables. (E) |  | x |  |  |  |  |
| Linear Equations, Inequalities, and Functions |  |  |  |  |  |  |  |
| Al.L. 1 | Represent real-world problems using linear equations and inequalities in one variable, including those with rational number coefficients and variables on both sides of the equal sign. Solve them fluently, explaining the process used and justify the choice of a solution method. (E) |  |  | X |  |  |  |
| Al.L. 2 | Represent linear functions as graphs from equations (with emphasis on technology), equations from graphs, and equations from tables and other given information (e.g., from a given point on a line and the slope of the line). Find the equations of a line in a slope-intercept, point-slope, and standard forms. Reveal more or less information about a given situation based on the form used. |  |  | X |  |  |  |
| Al.L. 3 | Represent real-world problems that can be modeled with a linear function using equations, graphs, and tables, including with technology. Translate fluently among these representations and interpret the slope and intercepts. (E) |  |  |  | X |  |  |
| AI.L. 4 | Solve linear and quadratic equations and formulas for a specified variable to highlight a quantity of interest, using the same reasoning as in solving equations. (E) |  |  |  | X |  |  |
| Systems of Linear Equations and Inequalities |  |  |  |  |  |  |  |
| AI.SEI. 1 | Represent real-world problems using linear inequalities in two variables and solve such problems; interpret the solution set, and determine whether it is reasonable. Graph the solutions to a linear inequality in two variables as a half-plane. (E) |  |  |  |  | X |  |


| AI.SEI. 2 | Write and graph a system of two linear equations in two variables that represents a real-world problem and solve the problem graphically and algebraically with and without technology. Interpret the solution, and determine whether the solution is reasonable. (E) |  |  |  |  | X |  |
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| AI.SEI. 3 | Represent real-world problems using a system of two linear inequalities in two variables. Graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes with and without technology. Interpret the solution set, and determine whether it is reasonable. |  |  |  |  |  |  |

## Semester 2



|  | Use technology to find a linear function that models a relationship <br> between two quantitative variables to make predictions and <br> interpret the slope and y-intercept. Using technology, compute <br> and interpret the correlation coefficient. (E) |  |  |  |  |
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| AI.DS.3 | Summarize bivariate categorical data in two-way frequency tables. <br> Interpret relative frequencies in the contexts of the data (including <br> joint, marginal, and conditional relative frequencies). Recognize <br> possible associations and trends in data. | x |  |  |  |$\quad$|  |  |  |
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