

Algebra 1 Rubric (Second Semester)

Standard	Expert	Proficient	Developing	Novice
5. Interpret and Create Graphs	Select and use unfamiliar graphical representations to make predictions and draw conclusions.	5.3 Given one-variable quantitative data, create an appropriate and useful graphical representation of the distribution. D1C	Describe the shape of data distributions and how that shape helps make predictions and draw conclusions for problems in context.	Select and justify appropriate graphical representations of data.
6. Write Equations of Functions	Describe in detail the effects of parameter changes on any function.	6.1 Describe the effects of parameter changes on linear, exponential, and quadratic functions including impact on the intercepts, rates of change, maxima and minima. A1E	Predict how a parameter change on a linear function will change the intercepts, rate of change, equation, graph, table, and function itself.	Describe how a parameter change on a linear, exponential, or quadratic function will change the intercepts of its graph.
	Create explicitly and recursively defined functions to generalize unfamiliar patterns.	6.2 Generate explicit and recursive functions to make predictions and draw conclusions, and determine which function is better for the situation. A1B	Generalize and model familiar patterns with a function that defines the next value in the pattern based on its sequence in the pattern (explicit).	Generalize and model familiar patterns with a function that defines the next value in the pattern based on the previous value (recursive).
	Choose the most appropriate form of equation for the line for the situation.	6.3 Write equations of lines in all three forms when given different information about the function.	Generate two forms of an equation for the same line, given a situation, table, or graph.	Write the equation of a line in one form, given a situation, table or graph.
	Given a complex scatter plot, create and test multiple function models.	6.4 Given a scatter plot, determine an equation for a function of best fit.	Given a scatter plot, determine an equation for a line of best fit. D2C	Describe a scatterplot and its possible meaning.
7. Solve with Precision	Use symbolic algebra to represent and solve problems that involve any relationships between two variables.	7.1 Use symbolic algebra to represent and solve problems that involve linear and quadratic relationships including equations and inequalities. A2A	Use variables and equations to represent and solve problems that involve linear or quadratic inequalities.	Use variables and equations to represent linear and quadratic relationships and equalities.
	Generate equivalent forms of unfamiliar functions, using additional equivalence properties.	7.2 Put any familiar function into standard form using equivalence properties.	Use and solve equivalent forms of equations (linear, absolute value, and quadratic). A2C	Given a linear or quadratic function, generate equivalent functions without solving them.
8. Use Systems of Equations and Linear Programming	Use and solve systems of linear equations or inequalities with more than two variables.	8.1 Use and solve systems of linear equations or inequalities with 2 variables without context. A2D	Use and solve systems of linear equations with 2 variables with context.	Write systems of linear equations with 2 variables from a situation.
	Solve complex systems of more than two types of functions and/or inequalities.	8.2 Solve simple systems of more than two types of functions and/or inequalities.	Solve simple systems of two types of functions and/or inequalities.	Solve simple systems of more than two types of functions using a graph.