Teacher:_____   **School Year:**_____

Algebra 1 Objective Sheet   **Student:**_____

Objectives:	1	2	3	4	Comments:
NUMBER AND OPERATIONS					
1. Understand relationships between numbers and their properties and perform operations fluently.					
a. Apply properties of real numbers to simplify algebraic expressions, including polynomials. (DOK 1)					
b. Use matrices to solve mathematical situations and contextual problems. (DOK 2)					
ALGEBRA					
2. Understand, represent, and analyze patterns, relations, and functions.					
a. Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations. (DOK 2)					
b. Solve and graph absolute value equations and inequalities in one variable. (DOK 2)					
c. Analyze the relationship between x and y values, determine whether a relation is a function, and identify domain and range. (DOK 2)					
d. Explain and illustrate how a change in one variable may result in a change in another variable and apply to the relationships between independent and dependent variables. (DOK 2)					
e. Graph and analyze linear functions. (DOK 2)					

f. Use algebraic and graphical methods to solve systems of linear equations and inequalities in mathematical and real-world situations. (DOK 2)				
g. Add, subtract, multiply, and divide polynomial expressions. (DOK 1)				
h. Factor polynomials by using Greatest Common Factor (GCF) and factor quadratics that have only rational roots. (DOK 1)				
i. Determine the solutions to quadratic equations by using graphing, tables, completing the square, the Quadratic formula, and factoring. (DOK 1)				
j. Justify why some polynomials are prime over the rational number system. (DOK 2)				
k. Graph and analyze absolute value and quadratic functions. (DOK 2)				
l. Write, graph, and analyze inequalities in two variables. (DOK 2)				
GEOMETRY				
3. Understand how algebra and geometric representations interconnect and build on one another.				
a. Apply the concept of slope to determine if lines in a plane are parallel or perpendicular. (DOK 2)				
b. Solve problems that involve interpreting slope as a rate of change. (DOK 2)				
MEASUREMENT				
4. Demonstrate and apply various formulas in problem-solving situations.				

a. Solve real-world problems involving formulas for perimeter, area, distance, and rate. (DOK 2)					
b. Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). (DOK 2)					
c. Represent polynomial operations with area models. (DOK 2)					
DATA ANALYSIS & PROBABILITY					
5. Represent, analyze and make inferences based on data with and without the use of technology.					
a. Draw conclusions and make predictions from scatter plots. (DOK 3)					
b. Use linear regression to find the line-of-best fit from a given set of data. (DOK 3					