Honors Algebra I

1st Grading Period (7 days)

Power Objective:

- **Solve linear equations and inequalities. (P.O. #1)**

Academic Vocabulary:

- compound inequality
- disjoint sets
- empty set
- equivalent inequalities
- intersection
- interval notation
- roster form
- set-builder notation
- solution of an inequality
- union universal set

Solve Linear Inequalities

Enduring Understandings:

- Any algebraic equation can be represented using symbols in an infinite number of ways, where each representation has the same solution.
- Properties of numbers and equality can transform an equation into equivalent simpler equations. This process is used to find solutions.
- ***See below for more enduring understandings.***

Essential Questions:

- How do you represent relationships between quantities that appear that are not equal?
- Can inequalities that appear to be different be equivalent?
- How can you solve inequalities?

Enduring Understandings:

- Quantities are used to form expressions, and equations. An expression refers to a quantity but does not make a statement about it. An equation is a statement about the quantities in mentions. Using variables in place of numbers in equations allows the statement or relationships among numbers that are unknown or unspecified.
- A single quantity may be represented by many different expressions. The facts about a quantity may be expressed by many different equations.
- Solving an equation is the process of rewriting the equation to make what it says about its variables as simple as possible. Properties of numbers and equality can be used to transform an equation into equivalent, simpler equations in order to find solutions. Useful information about equations can be found by analyzing graphs or tables. The numbers and types of solutions vary predictably, based on the type of equation.