



# Algebra I

## 2<sup>nd</sup> Grading Period (10 days)

### Power Objectives:

- Understand, interpret, and build functions. (P.O. #2)
- Model linear functions – linear, quadratic, exponential (P.O. #3)
- Evaluate exponential and exponential functions. (P.O. #5)

### Academic Vocabulary:

- direct variation
- linear equation
- piecewise function
- point-slope form
- rate of change
- slope
- slope-intercept form
- standard form
- step function
- X-intercept
- Y-intercept

## Linear Functions

### Enduring Understandings:

- Ratios can be used to show relationship between changing quantities, such as vertical and horizontal change.
- If the ratio of two variables is constant, then the variables have a special relationship, called direct variation.
- A line on a graph can be represented by a linear equation. Forms of linear equations include the slope-intercept, point-slope, and standard forms.
- The relationship between two lines can be determined by comparing the slopes and Y-intercepts.
- Absolute value equations can be graphed quickly by shifting the graph of  $y=abs(x)$ .

### Essential Questions:

- What does the slope of a line indicate about the line?
- What information does the equation of a line give you?

