

Algebra I
MATH PACING GUIDE
Lunenburg County Public Schools
2018-2019

First Nine Weeks

SOL	TOPIC	DAYS
A.1a A.1b	Represent verbal quantitative situations algebraically. Evaluate algebraic expressions for given replacement values for variables.	5
A.4a	Apply the properties of real numbers and properties of equality to simplify expressions. This will include the use of concrete objects; pictorial representations; and the properties of real numbers, equality, and inequality.	5
A.4a A.4c A.4e	Determine whether an equation has one, an infinite number, or no solutions. Solve multistep linear equations in one variable, solve literal equations (formulas) for a given variable, and apply these skills to solve practical problems. Graphing calculators will be used to confirm algebraic solutions.	15
A.5a A.5b A.5c	Solve multistep linear inequalities in one variable and apply these skills to solve practical problems. Graphing calculators will be used to confirm algebraic solutions.	5
A.8	The student, given a data set or practical situation, will analyze a relation to determine whether a direct or inverse variation exists, and represent a direct variation algebraically and graphically and an inverse variation algebraically.	5
A.7abcde	Determine whether a relation is a function. Identify the domain, range, zeros, & intercepts of a function algebraically. For any value of x , determine $f(x)$.	5
A.7ef	Represent relations & functions using verbal descriptions, tables, equations, and graph. Given	5

	one representation, represent the relation in another form. Investigate & analyze characteristics and multiple representations of functions with a graphing utility.	

Second Nine Weeks

SOL	TOPIC	DAYS
A.7f A.6c	select, justify, and apply an appropriate technique to graph linear functions and linear inequalities in two variables. Techniques will include slope-intercept, x- and y-intercepts, graphing by transformation, and the use of the graphing calculator.	10
A.6a	determine the slope of a line when given an equation of the line, the graph of the line, or two points on the line. Slope will be described as rate of change and will be positive, negative, zero, or undefined. The graphing calculator will be used to investigate the effect of changes in the slope on the graph of the line.	10
A.6c	Use the parent function $y=x$ and describe transformations defined by changes in the slope or y-intercept	5
A.6b	Write the equation of a line given the graph, two points on the line, the slope and a point on the line (integers only), a vertical line, & a horizontal line. Write the equation of a line parallel or perpendicular to a given line through a given point.	10
A.4de	Given a system of two linear equations, solve the system by substitution or elimination to identify the ordered pair that satisfies both equations. Solve the system graphically by identifying the point of intersection. Solve & confirm algebraic solutions to a system using a graphing utility. Determine whether a system has one, an infinite number, or no solutions.	10

