

## Algebra I Part 1/Part 2 Pacing Guide

This Pacing Guide was revised in June 2017.

Chapters referenced are from old adopted text, Glencoe: Algebra I.

### KEY:

Blue = 2016 SOL standard

Black = 2009 and 2016 standard

Red = 2009 SOL standard

SOL #	Standards	Textbook
<b>First Quarter</b>		
A.1a	a) The student will represent verbal quantitative situations algebraically	1-1, 3-1
A.1b	b) The student will evaluate algebraic expressions for given replacement values of the variables	1-2
A.2a	a) The students will apply the laws of exponents to perform operations on expressions	8-1, 8-2
A.2b	b) The student will add, subtract, multiply, and divide polynomials	8-5, 8-6, 8-7, 8-8
A.2c	c) The student will factor completely first- and second-degree binomials and trinomials in one variable	Chapter 9
A.2b	b) The student will divide polynomials	12-2
<b>Second Quarter</b>		
A.4a, A.4d	a) The student will solve multistep linear equations in one variable algebraically	3-4, 3-5, 3-6
A.4b	b) The student will justify steps used in simplifying expressions and solving equations, using field properties and axioms of equality that are valid for the set of real numbers and its subsets	1-4, 1-5, 1-6
A.5a	a) The student will solve multistep linear inequalities in one variable algebraically and represent the solution graphically	6-3
A.5b	b) The student will justify steps used in solving inequalities, using axioms of inequality and properties of order that are valid for the set of real numbers and its subsets	6-1, 6-2, 6-3
A.7a	a) The student will investigate and analyze linear function families and their characteristics both algebraically and graphically, including determining whether a relation is a function	4-6
A.7b	b) The student will investigate and analyze linear function families and their characteristics both algebraically and graphically, including domain and range	4-3, 4-4
A.7c	c) The student will investigate and analyze linear function families and their characteristics both algebraically and graphically, including zeros	4-5
A.7d	d) The student will investigate and analyze linear function families and their characteristics both algebraically and graphically, including intercepts	4-5
A.7e	e) The student will investigate and analyze linear function families and their characteristics both algebraically and graphically, including values of a function for elements in its domain	4-4, 4-6
A.7f	f) The student will investigate and analyze linear function families and their characteristics both algebraically and graphically, including connections between and among multiple representations of functions using verbal descriptions, tables, equations, and graphs	4-3
A.4c, A.4a	c) The student will solve literal equations for a specified variable	3-8
A.6a	a) The student will determine the slope of a line when given an equation of the line, the graph of the line, or two points on the line	5-1, 5-3
<b>Third Quarter</b>		
A.6b	b) The student will write the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line (including parallel and perpendicular)	5-3, 5-4, 5-6

A.6c	c) The student will graph linear equations in two variables	4-5, 5-3
A.5b, A.6	b) The student will represent the solution of linear inequalities in two variables graphically	6-6
A.5c	c) The student will solve practical problems involving inequalities	Chapter 6
A.4d, A.4e	d) The student will solve systems of two linear equations in two variables algebraically and graphically	7-1, 7-2, 7-3, 7-4
A.4e, A.4f	e) The student will solve practical problems involving equations and systems of equations	Chapter 3, Chapter 7
A.5d	d) The student will represent the solution to a system of inequalities graphically	7-5
A.3a	a) The student will simplify square roots of whole numbers and monomial algebraic expressions	11-1
A.3b	b) The student will simplify cube roots of integers	supplement
A.3c	c) The student will simplify numerical expressions containing square or cube roots	11-1, supplement
A.4b, A.4c	b) The student will solve quadratic equations in one variable algebraically (including using quadratic formula)	9-3, 9-4, 9-5, 9-6,10-4
<b>Fourth Quarter</b>		
A.7b	b) The student will investigate and analyze quadratic function families and their characteristics both algebraically and graphically, including domain and range	10-1
A.7d	d) The student will investigate and analyze quadratic function families and their characteristics both algebraically and graphically, including intercepts	10-2, supplement
A.7c	c) The student will investigate and analyze quadratic function families and their characteristics both algebraically and graphically, including zeros	10-2, 10-4
A.4b, A.4c	b) The student will solve quadratic equations in one variable (graphically)	10-2, 10-4
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	5-2, 12-1
A.9, A.11	The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of linear and quadratic functions	5-7, supplement
A.9	The student, given a set of data, will interpret variation in real-world contexts and calculate and interpret mean absolute deviation, standard deviation, and z-scores	13-4, supplement
A.10	The student will compare and contrast multiple univariate data sets, using box-and-whisker plots	13-5