

PreAlgebra Pacing Guide		KEY:
This Pacing Guide was revised in June 2017.		Blue = 2016 SOL standard
Chapters referenced are from old adopted text, Glencoe: Pre-Algebra		Black = 2009 and 2016 standard
unless noted Math 7 (7th) or Math 8 (8th)		Red = 2009 SOL standard
		* = No calculator
SOL #	Standards	Textbook
First Quarter		
PA.1a	a) The student will investigate and describe the concept of negative exponents for powers of ten	4-7
PA.1b	* b) The student will compare and order numbers greater than zero written in scientific notation	4-8
PA.1d	* d) The student will determine square roots of perfect squares	9-1
8.3b	b) determine both the positive and negative square roots of a given perfect square	9-1
PA.16	The student will apply the following properties of operations with real numbers: a) the commutative and associative properties for addition and multiplication; b) the distributive property; c) the additive and multiplicative identity properties; d) the additive and multiplicative inverse properties; and e) the multiplicative property of zero	1-4
PA.1e	e) The student will identify and describe absolute value of rational numbers	2-1
PA.3a	a) The student model addition, subtraction, multiplication, division of integers	2-2, 2-3, 2-4, 2-5
PA.3b	b) The student will add, subtract, multiply, divide integers	2-2, 2-3, 2-4, 2-5
8.2	The student will describe the relationships between the subsets of the real number system	9-2
PA.1c	* c) The student will compare and order rational numbers	5-2
8.1	The student will compare and order real numbers	5-2
8.3a	The student will a) estimate and determine the two consecutive integers between which a square root lies	9-1
PA.2	The student will solve practical problems involving operations with rational numbers	5-9
PA.11, PA.13b	The student will evaluate algebraic expressions for given replacement values of the variables	4-2
PA.13a	The student will write verbal expressions as algebraic expressions and sentences as equations and vice versa	1-2
8.14a	a) The student will evaluate an algebraic expression for given replacement values of the variables	4-2
8.14b	b) The student will simplify algebraic expressions in one variable.	4-2
Second Quarter		
PA.12, PA.14a,b	The student will solve two-step linear equations in one variable, including practical problems that require the solution of a two-step linear equation in one variable	3-6
8.17	The student will solve multistep linear equations in one variable with the variable on one or both sides of the equation, including practical problems that require the solution of a multistep linear equation in one variable.	7-1
PA.13, PA.15a,b	The student will solve one- and two-step linear inequalities in one variable, including practical problems, involving addition, subtraction, multiplication, and division, and graph the solution on a number line	3-3, 3-4, 3-5

8.18	The student will solve multistep linear inequalities in one variable with the variable on one or both sides of the inequality symbol, including practical problems, and graph the solution on a number line	7-6
PA.3, PA.4	The student will solve single-step and multistep practical problems, using proportional reasoning	6-2
8.4	The student will solve practical problems involving consumer applications.	8-5 in 7th
PA.6a, PA.7.7	a) The student will compare and contrast quadrilaterals based on their properties	10-4
PA.6b	b) The student will determine unknown side lengths or angle measures of quadrilaterals	10-4
PA.5, PA.6	The student will solve problems, including practical problems, involving the relationship between corresponding sides and corresponding angles of similar quadrilaterals and triangles	9-7, 10-4
Third Quarter		
PA.2	The student will describe and represent arithmetic and geometric sequences, using variable expressions	5-10
8.15a,b	The student will a) determine whether a given relation is a function; and b) determine the domain and range of a function	1-6
8.16c	c) The student will determine the independent and dependent variable, given a practical situation modeled by a linear function	8-1
PA.10a	a) The student will determine the slope, m , as rate of change in a proportional relationship between two quantities and write an equation in the form $y = mx$ to represent the relationship	8-4
PA.10b	b) The student will graph a line representing a proportional relationship between two quantities given the slope and an ordered pair, or given the equation in $y = mx$ form where m represents the slope as rate of change	8-4
8.16a	a) The student will recognize and describe the graph of a linear function with a slope that is positive, negative, or zero	13-5
PA.10c	c)The student will determine the y -intercept, b , in an additive relationship between two quantities and write an equation in the form $y = x + b$ to represent the relationship	8-6
PA.10d	d) The student will graph a line representing an additive relationship between two quantities given the y -intercept and an ordered pair, or given the equation in the form $y = x + b$, where b represents the y -intercept	8-9
PA.10e, PA.12	e) The student will make connections between and among representations of a proportional or additive relationship between two quantities using verbal descriptions, tables, equations, and graphs	
PA.9a, PA.11a	a) The student will represent data in a histogram	6-2, 6-3
PA.9b, PA.11a	b) The student will make observations and inferences about data represented in a histogram	12-4
PA.9c, PA.11b	c) The student will compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs	2-5, 2-6, 2-7 in 7th
8.12a,b,c	The student will a) represent numerical data in boxplots; b) make observations and inferences about data represented in boxplots; and c) compare and analyze two data sets using boxplots.	12-3
Fourth Quarter		
PA.7	The student will apply translations and reflections of right triangles or rectangles in the coordinate plane	10-3

PA.8	The student, given a polygon in the coordinate plane, will represent transformations (reflections, dilations, rotations, and translations) by graphing in the coordinate plane	10-3
8.7a	The student will a) given a polygon, apply transformations, to include translations, reflections, and dilations, in the coordinate plane	10-3
PA.4a, PA.5a	a) The student will describe and determine the volume and surface area of rectangular prisms and cylinders	11-2, 11-4
PA.4b, PA.5b	b) The student will solve problems, including practical problems, involving the volume and surface area of rectangular prisms and cylinders	11-2, 11-4
8.6a	a) solve problems, including practical problems, involving volume and surface area of cones and square-based pyramids; and	11-3, 11-5
PA5c	The student will describe how changing one measured attribute of a rectangular prism affects its volume and surface area	12-7, 12-8 in 8th
8.6b	b) describe how changing one measured attribute of a rectangular prism affects the volume and surface area.	12-7, 12-8 in 8th
PA.8a	a) The student will determine the theoretical and experimental probabilities of an event	6-9
PA.8b, PA.9	b) The student will investigate and describe the difference between the experimental probability and theoretical probability of an event	6-9
7.10	The student will determine the probability of compound events, using the Fundamental (Basic) Counting Principle	12-6
8.11a,b	The student will a) compare and contrast the probability of independent and dependent events; and b) determine probabilities for independent and dependent events.	12-9