GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

NUMBER AND OPERATION (encompasses 6-8 MCA test items)

Standard 1: Read, write, compare, classify and represent real numbers, and use them to solve problems in various contexts. (encompasses 6-8 MCA test items)

Curriculum Benchmark	MCA III Test Item Specifications	Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition	Notes
Classify real numbers as rational or irrational. Know that when a square root of a positive integer is not an integer, then it is irrational. Know that the sum of a rational number and an irrational number is irrational, and the product of a non-zero rational number and an irrational number is irrational. (8.1.1.1) For example: Classify the following numbers as whole numbers, integers, rational numbers, irrational numbers, recognizing that some numbers belong in more than one category: 6/3, 3/6, $3.\overline{6}$, □/2, $-\sqrt{4}$, $\sqrt{10}$, -6.7	• Allowable notation: $\sqrt{18}$ • Vocabulary allowed in items: irrational, real, square root, radical, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.8 (54-56, 58); Lesson 9.1 (593, 596); Lesson 9.2 (599-600, 603); Lesson 11.2 (772-773)	
Compare real numbers; locate real numbers on a number line. Identify the square root of a positive integer as an integer, or if it is not an integer, locate it as a real number between two consecutive positive integers. (8.1.1.2) For example: Put the following numbers in order from smallest to largest: 2, $\sqrt{3}$, − 4, − 6.8, − $\sqrt{37}$. Another example: $\sqrt{68}$ is an irrational number between 8 and 9.	• Allowable notation: $\sqrt{18}$ • Vocabulary allowed in items: square root, radical, consecutive, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.8 (56, 58); Lesson 2.4 (106); Lesson 2.5 (109-110); Lesson 4.6 (272); Lesson 5.9 (359); Lesson 6.6 (422); Lesson 7.5 (476); Lesson 7.6 (487-489); Lesson 7.7 (493-496); Lesson 7.8 (506); Lesson 9.2 (605); Lesson 10.2 (688); Lesson 10.8 (741); Lesson 11.2 (772-773)	
Determine rational approximations for solutions to problems involving real numbers. (8.1.1.3) For example: A calculator can be used to determine that $\sqrt{7}$ is approximately 2.65. Another example: To check that 1 5/12 is slightly bigger than $\sqrt{2}$, do the calculation $(1\ 5/12)^2 = (17/12)^2 = 289/144 = 2\ 1/144$. Another example: Knowing that 10 is between 3 and 4, try squaring numbers like 3.5, 3.3, 3.1 to determine that 3.1 is a reasonable rational approximation of $\sqrt{10}$.	• Allowable notation: $\sqrt{18}$ • Vocabulary allowed in items square root, radical, consecutive, and vocabulary given at previous grades	(None identified)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

NUMBER AND OPERATION (encompasses 6-8 MCA test items) (continued)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Know and apply the properties of positive and negative integer exponents to generate equivalent numerical expressions. (8.1.1.4) For example: $3^2x3^{(-5)}=3^{(-3)}=(1/3)^3=1/27$.	• Allowable notation: $-x^2$, $(-x)^2$, -3^2, $(-3)^2$ • Expressions may be numeric or algebraic • Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 6.1 (383-388)	
Express approximations of very large and very small numbers using scientific notation; understand how calculators display numbers in scientific notation. Multiply and divide numbers expressed in scientific notation, express the answer in scientific notation, using the correct number of significant digits when physical measurements are involved. (8.1.1.5) For example: $(4.2x10^4)x(8.25x10^3) = 3.465x10^8$, but if these numbers represent physical measurements, the answer should be expressed as $3.5x10^8$ because the first factor, $4.2x10^4$, only has two significant digits.	• Vocabulary allowed in items: scientific notation, significant digits, standard form, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 6.3 (398-403)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items)			
Standard 1: Understand the concept of function in realworld and mathematical situations, and distinguish between linear and nonlinear functions. (encompasses 4-5 MCA test items)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Understand that a function is a relationship between an independent variable and a dependent variable in which the value of the independent variable determines the value of the dependent variable. Use functional notation, such as f(x), to represent such relationships. (8.2.1.1) For example: The relationship between the area of a square and the side length can be expressed as $f(x) = x^2$. In this case, $f(5) = 25$, which represents the fact that a square of side length 5 units has area 25 units squared.	• Vocabulary allowed in items: independent, dependent, constant, coefficient, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.5 (32); Lesson 5.1 (296-299); Lesson 10.3 (694-699)	
Use linear functions to represent relationships in which changing the input variable by some amount leads to a change in the output variable that is a constant times that amount. (8.2.1.2) For example: Uncle Jim gave Emily $50 on the day she was born and $25 on each birthday after that. The function $f(x) = 50 + 25x$ represents the amount of money Jim has given after x years. The rate of change is $25 per year.	• Vocabulary allowed in items: independent, dependent, constant, coefficient, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.1 (230-233); Lesson 4.2 (236-242); Lesson 4.3 (245-251); Lesson 4.4 (253-258)	
Understand that a function is linear if it can be expressed in the form $f(x)=mx+b$ or if its graph is a straight line. (8.2.1.3) For example: The function $f(x) = x^2$ is not a linear function because its graph contains the points (1,1), (-1,1) and (0,0), which are not on a straight line.	• Vocabulary allowed in items: linear, constant, coefficient, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.3 (245-251)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items) (continued)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Understand that an arithmetic sequence is a linear function that can be expressed in the form $f(x)=mx+b$, where x = 0, 1, 2, 3,…. (8.2.1.4) For example: The arithmetic sequence 3, 7, 11, 15,…, can be expressed as $f(x) = 4x + 3$.	• Vocabulary allowed in items: n^{th} term, arithmetic sequence, geometric sequence, linear function, non-linear function, progression, common difference, and vocabulary given at previous grades • Allowable notation: items must specify the domain as x = 1, 2, 3, 4,… or x = 1, 2, 3, 4,…	(None identified)	
Understand that a geometric sequence is a non-linear function that can be expressed in the form $f(x)=ab^x$, where x = 0, 1, 2, 3,…. (8.2.1.5) For example: The geometric sequence 6, 12, 24, 48, … , can be expressed in the form $f(x) = 6(2^x)$.	• Vocabulary allowed in items: n^{th} term, arithmetic sequence, geometric sequence, linear function, non-linear function, exponential, progression, common ratio, and vocabulary given at previous grades • Allowable notation: items must specify the domain as x = 1, 2, 3, 4, or x = 1, 2, 3, 4,…	(None identified)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items) (continued)			
Standard 2: Recognize linear functions in realworld and mathematical situations; represent linear functions and other functions with tables, verbal descriptions, symbols and graphs; solve problems involving these functions and explain results in the original context. (encompasses 4-6 MCA test items)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Represent linear functions with tables, verbal descriptions, symbols, equations and graphs; translate from one representation to another. (8.2.2.1)	• Vocabulary allowed in items: linear function, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.4 (30-31); Lesson 1.5 (32-36); Lesson 4.2 (236-237, 240-242); Lesson 4.6 (276); Lesson 5.2 (303, 305); Lesson 5.4 (320); Lesson 6.4 (406-407); Lesson 7.5 (480); Lesson 7.7 (492)	
Identify graphical properties of linear functions including slopes and intercepts. Know that the slope equals the rate of change, and that the y-intercept is zero when the function represents a proportional relationship. (8.2.2.2)	• Coordinates used for determining slope must contain integer values • Vocabulary allowed in items: linear function, intercept, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.1 (230-233); Lesson 4.2 (236-242); Lesson 4.3 (245-251); Lesson 4.4 (253-258)	
Identify how coefficient changes in the equation $f(x) = mx+b$ affect the graphs of linear functions. Know how to use graphing technology to examine these effects. (8.2.2.3)	• Vocabulary allowed in items: linear function, intercept, coefficient, constant, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 5.1 (296-298); Lesson 10.4 (702-707); Lesson 10.5 (713-718); Lesson 10.6 (722-725); Lesson 10.7 (726)	
Represent arithmetic sequences using equations, tables, graphs and verbal descriptions, and use them to solve problems. (8.2.2.4) For example: If a girl starts with \$100 in savings and adds \$10 at the end of each month, she will have $100 + 10x$ dollars after x months.	• Vocabulary allowed in items: n^{th} term, arithmetic sequence, geometric sequence, linear function, non-linear function, progression, and vocabulary given at previous grades	(None identified)	
Represent geometric sequences using equations, tables, graphs and verbal descriptions, and use them to solve problems. (8.2.2.5) For example: If a girl invests \$100 at 10% annual interest, she will have $100(1.1^x)$ dollars after x years.	• Vocabulary allowed in items: n^{th} term, arithmetic sequence, geometric sequence, linear function, non-linear function, progression, and vocabulary given at previous grades	(None identified)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items) (continued)			
Standard 3: Generate equivalent numerical and algebraic expressions and use algebraic properties to evaluate expressions. (encompasses 3-5 MCA test items)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Evaluate algebraic expressions, including expressions containing radicals and absolute values, at specified values of their variables. (8.2.3.1) For example: Evaluate $\pi r^2 h$ when $r = 3$ and $h = 0.5$, and then use an approximation of π to obtain an approximate answer.	• Items must not have context • Directives may include: simplify, evaluate • Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.1 (11); Lesson 1.3 (20, 22); Lesson 1.4 (30-31); Lesson 1.5 (32-35); Lesson 5.1 (296, 298); Lesson 5.9 (359); Lesson 8.1 (528-529); Lesson 10.8 (739-740); Lesson 11.1 (769)	
Justify steps in generating equivalent expressions by identifying the properties used, including the properties of algebra. Properties include the associative, commutative and distributive laws, and the order of operations, including grouping symbols. (8.2.3.2)	• Items must not have context • Vocabulary allowed in items: associative, commutative, distributive, identity, property, order of operations, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.3 (20); Lesson 2.1 (80-83); Lesson 2.2 (84-88, 90); Lesson 2.3 (92-93, 98); Lesson 2.4 (100-103); Lesson 2.5 (107); Lesson 2.6 (116-117); Lesson 2.7 (124-125); Lesson 2.8 (129-132); Lesson 2.9 (135-137); Lesson 2.10 (138, 141-143); Lesson 3.1 (170); Lesson 3.2 (177); Lesson 3.6 (207); Lesson 4.1 (233); Lesson 4.2 (242); Lesson 4.5 (263); Lesson 5.2 (307); Lesson 5.4 (325); Lesson 5.6 (334); Lesson 5.8 (352); Lesson 5.9 (359); Lesson 6.1 (385); Lesson 6.3 (403); Lesson 7.3 (463); Lesson 7.4 (472); Lesson 8.5 (558-564); Lesson 8.6 (570); Lesson 9.6 (635); Lesson 10.4 (706); Lesson 10.5 (713); Lesson 10.8 (743); Lesson 11.2 (772)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items) (continued)			
Standard 4: Represent realworld and mathematical situations using equations and inequalities involving linear expressions. Solve equations and inequalities symbolically and graphically. Interpret solutions in the original context. (encompasses 10-15 MCA test items)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Use linear equations to represent situations involving a constant rate of change, including proportional and nonproportional relationships. (8.2.4.1) For example: For a cylinder with fixed radius of length 5, the surface area $A = 2\pi(5)h + 2\pi(5)^2 = 10\pi h + 50\pi$, is a linear function of the height h, but the surface area is not proportional to the height.	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.5 (32, 34-36); Lesson 4.2 (236-242); Lesson 4.4 (253, 257); Lesson 4.5 (264-265)	
Solve multi-step equations in one variable. Solve for one variable in a multi-variable equation in terms of the other variables. Justify the steps by identifying the properties of equalities used. (8.2.4.2) For example: The equation $10x + 17 = 3x$ can be changed to $7x + 17 = 0$, and then to $7x = -17$ by adding/subtracting the same quantities to both sides. These changes do not change the solution of the equation. Another example: Using the formula for the perimeter of a rectangle, solve for the base in terms of the height and perimeter.	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 2.8 (129-132); Lesson 2.9 (133-137); Lesson 2.10 (138-143); Lesson 5.1 (301); Lesson 5.2 (305); Lesson 11.2 (773)	
Express linear equations in slope-intercept, point-slope and standard forms, and convert between these forms. Given sufficient information, find an equation of a line. (8.2.4.3) For example: Determine an equation of the line through the points (-1,6) and (2/3, -3/4).	• Items must not have context • Vocabulary allowed in items: slope-intercept form, point-slope form, standard form, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.1 (230-233); Lesson 4.3 (245-251); Lesson 4.4 (253-257)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items) (continued)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Use linear inequalities to represent relationships in various contexts. (8.2.4.4) For example: A gas station charges $0.10 less per gallon of gasoline if a customer also gets a car wash. Without the car wash, gas costs $2.79 per gallon. The car wash is $8.95. What are the possible amounts (in gallons) of gasoline that you can buy if you also get a car wash and can spend at most $35?	• Inequalities contain no more than 1 variable • Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.6 (276-277); Lesson 5.7 (345)	
Solve linear inequalities using properties of inequalities. Graph the solutions on a number line. (8.2.4.5) For example: The inequality $-3x < 6$ is equivalent to $x > -2$, which can be represented on the number line by shading in the interval to the right of -2.	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.6 (276-277); Lesson 5.7 (345-347); Lesson 5.8 (349-352)	
Represent relationships in various contexts with equations and inequalities involving the absolute value of a linear expression. Solve such equations and inequalities and graph the solutions on a number line. (8.2.4.6) For example: A cylindrical machine part is manufactured with a radius of 2.1 cm, with a tolerance of 1/100 cm. The radius r satisfies the inequality $\|r - 2.1\| \leq .01$.	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 5.1 (296-302); Lesson 5.2 (303-307)	
Represent relationships in various contexts using systems of linear equations. Solve systems of linear equations in two variables symbolically, graphically and numerically. (8.2.4.7) For example: Marty's cell phone company charges $15 per month plus $0.04 per minute for each call. Jeannine's company charges $0.25 per minute. Use a system of equations to determine the advantages of each plan based on the number of minutes used.	• Vocabulary allowed in items: system of equations, undefined, infinite, intersecting, identical, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 5.4 (320-325); Lesson 5.5 (326-331); Lesson 5.6 (334-336, 338-340); Lesson 5.7 (341-344); Lesson 5.8 (353-355); Lesson 5.9 (357-359)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

ALGEBRA (encompasses 24-30 MCA test items) (continued)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Understand that a system of linear equations may have no solution, one solution, or an infinite number of solutions. Relate the number of solutions to pairs of lines that are intersecting, parallel or identical. Check whether a pair of numbers satisfies a system of two linear equations in two unknowns by substituting the numbers into both equations. (8.2.4.8)	• Assessed within 8.2.4.7	Holt "Algebra 1" 2007 SE pages: Lesson 5.6 (338-340); Lesson 5.7 (341-344)	
Use the relationship between square roots and squares of a number to solve problems. (8.2.4.9) For example: If $x^2=5$, then $\|x\|=\sqrt{5}$, or equivalently, $x=\sqrt{5}$ or $x = -\sqrt{5}$. If *x* is understood as the radius of a circle in this example, then the negative solution should be discarded and $x=\sqrt{5}$.	• Allowable notation: ±3 • Items may assess the interpretation of square roots based on the context of the item • Vocabulary allowed in items: square root and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 7.6 (486-489); Lesson 9.1 (592-596); Lesson 9.2 (599-600, 603); Lesson 9.3 (606, 610); Lesson 11.1 (767); Lesson 11.2 (772-773)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

GEOMETRY AND MEASUREMENT (encompasses 8-10 MCA test items)			
Standard 1: Solve problems involving right triangles using the Pythagorean Theorem and its converse. (encompasses 3-5 MCA test items)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Use the Pythagorean Theorem to solve problems involving right triangles. (8.3.1.1) For example: Determine the perimeter of a right triangle, given the lengths of two of its sides. Another example: Show that a triangle with side lengths 4, 5 and 6 is not a right triangle.	• Congruent angle marks may be used • Vocabulary allowed in items: Pythagorean Theorem and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 9.1 (591-596); Lesson 11.2 (773)	
Determine the distance between two points on a horizontal or vertical line in a coordinate system. Use the Pythagorean Theorem to find the distance between any two points in a coordinate system. (8.3.1.2)	• Graphs are not provided when finding horizontal or vertical distance • Vocabulary allowed in items: Pythagorean Theorem and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 9.2 (599-604); Lesson 11.2 (774)	
Informally justify the Pythagorean Theorem by using measurements, diagrams, and computer software. (8.3.1.3)	(Not assessed on the MCA-III)	Holt "Algebra 1" 2007 SE pages: Lesson 9.1 (592-593)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

GEOMETRY AND MEASUREMENT (encompasses 8-10 MCA test items) (continued)			
Standard 2: Solve problems involving parallel and perpendicular lines on a coordinate system. (encompasses 3-5 MCA test items)			
Curriculum Benchmark	**MCA III Test Item Specifications**	**Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition**	**Notes**
Understand and apply the relationships between the slopes of parallel lines and between the slopes of perpendicular lines. Dynamic graphing software may be used to examine these relationships. (8.3.2.1)	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.4 (258)	
Analyze polygons on a coordinate system by determining the slopes of their sides. (8.3.2.2) For example: Given the coordinates of four points, determine whether the corresponding quadrilateral is a parallelogram.	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 9.3 (611)	
Given a line on a coordinate system and the coordinates of a point not on the line, find lines through that point that are parallel and perpendicular to the given line, symbolically and graphically. (8.3.2.3)	• Vocabulary allowed in items: vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 4.4 (258)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

DATA ANALYSIS AND PROBABILITY (encompasses 6-8 MCA test items)

Standard 1: Interpret data using scatterplots and approximate lines of best fit. Use lines of best fit to draw conclusions about data. (encompasses 6-8 MCA test items)

Curriculum Benchmark	MCA III Test Item Specifications	Where Benchmark is Taught/Assessed in Holt "Algebra 1" Student Edition	Notes
Collect, display and interpret data using scatterplots. Use the shape of the scatterplot to informally estimate a line of best fit and determine an equation for the line. Use appropriate titles, labels and units. Know how to use graphing technology to display scatterplots and corresponding lines of best fit. (8.4.1.1)	• Data sets are limited to no more than 30 data points • Vocabulary allowed in items: scatterplot, line of best fit, correlation and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.5 (37); Lesson 1.6 (40-42); Lesson 4.5 (264-265); Lesson 5.6 (340); Lesson 6.5 (417); Lesson 10.8 (740)	
Use a line of best fit to make statements about approximate rate of change and to make predictions about values not in the original data set. (8.4.1.2) For example: Given a scatterplot relating student heights to shoe sizes, predict the shoe size of a 5'4" student, even if the data does not contain information for a student of that height.	• Vocabulary allowed in items: scatterplot, line of best fit, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.6 (40-42); Lesson 4.5 (264-265); Lesson 5.6 (340); Lesson 6.5 (417); Lesson 10.8 (740)	
Assess the reasonableness of predictions using scatterplots by interpreting them in the original context. (8.4.1.3) For example: A set of data may show that the number of women in the U.S. Senate is growing at a certain rate each election cycle. Is it reasonable to use this trend to predict the year in which the Senate will eventually include 1000 female Senators?	• Vocabulary allowed in items: scatterplot, line of best fit, and vocabulary given at previous grades	Holt "Algebra 1" 2007 SE pages: Lesson 1.5 (37); Lesson 1.6 (40-42); Lesson 4.5 (264-265); Lesson 5.6 (340); Lesson 6.5 (417); Lesson 10.8 (740)	

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

READING IN THE CONTENT AREA FOR GRADES 6-8 (Taken from "Standards for Literacy in Science/Technical Subjects")				
Benchmark	**Unit**	**Quarter**	**Activities**	**How Assessed**
Cite specific textual evidence to support analysis of technical texts (6.13.1.1).	All units involve analyzing word problems. Specifically Chapter 6 Systems.	Ongoing. Specifically Systems in Quarter 3	Analyze the usefulness or effectiveness of a word problem.	Through application of standard in the problems assigned – Formative and Summative on Chapter 6 test
Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions (6.13.2.2).	All units involve analyzing word problems. Specifically in Chapter 3 Inequalities.	Ongoing. Specifically Inequalities in Quarter 2	Solving word problems. Being able to pick key words in order to determine the mathematical structure of the problem.	Through application of standard in the problems assigned – Formative and Summative on Chapter 3 test
Follow precisely a multistep procedure when carrying out experiments, designing solutions, taking measurements, or performing technical tasks (6.13.3.3).	Solving Multi-step equations, Section 2-4 and Multi-step Inequalities, Section 3-4	Ongoing. Specifically in Quarter 2 for Equations and Quarter 3 for Inequalities	Our students have to follow multi-step procedures in many applications including Order of Operations, Volume, and Surface Area, Systems of Equations.	Through application of standard in the problems assigned – Formative and Summative on Chapters 2 and 3 test
Determine the meaning of symbols, equations, graphical representations, tabular representations, key terms, and other domain-specific words and phrases as they are used in a specific technical context relevant to grades 6-8 texts and topics (6.13.4.4)	All units address this benchmark. Specifically Chapter 1 translating words to expressions and vice versa	Ongoing. Specifically Translating in Quarter 1	Variables, =, <, >, operations and grouping symbols.	Through application of standard in the problems assigned – Formative and Summative on Chapter 1 test
Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic (6.13.5.5).	Chapter 1	Specifically Systems in Quarter 1	We introduce students to the book by having activities such as Scavenger Hunt.	Through application of standard in the problems assigned – Formative
Analyze the author's purpose in describing phenomena, providing an explanation, describing a procedure, or discussing/reporting an experiment in a text (6.13.6.6).	Scatterplots and Trend Lines, Section 4-5	Ongoing. Specifically Analyzing Lines in Quarter 2	Analyzing trend lines, correlations, and making lines of best fit.	Through application of standard in the problems assigned – Formative and Summative on Chapter 4 test
Compare and integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, table, map) (6.13.7.7).	Graphing Functions, Chapter 5	Quarter 2	We use diagrams, tables, and graphs in almost every unit; specifically in Chapter 5 linear equations. We make graphs throughout this chapter.	Through application of standard in the problems assigned – Formative and Summative on Chapter 5 test
Distinguish among claims, evidence, reasoning, facts, and reasoned judgment based on research findings, and speculation in a text (6.13.8.8).	Graphing Functions, Chapter 5	Quarter 2	We use diagrams, tables, and graphs in almost every unit; specifically in Chapter 5 linear equations. We make graphs throughout this chapter.	Through application of standard in the problems assigned – Formative and Summative on Chapter 5 test

GRADES 7-8: ALGEBRA 1 CURRICULUM FRAMEWORKS

READING IN THE CONTENT AREA FOR GRADES 6-8 (Taken from "Standards for Literacy in Science/Technical Subjects") (continued)				
Benchmark	**Unit**	**Quarter**	**Activities**	**How Assessed**
Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with what has been gained from reading a text on the same topic (6.13.9.9).	Chapter 1	Quarter 2	Equation solving, Flow chart, Venn Diagram (GCF, LCD, and LCM)	Through application of standard in the problems assigned – Formative
By the end of grade 8, read and comprehend technical texts in the grades 6-8 text complexity band independently and proficiently (6.13.10.10).	All units	All quarters	Having students read and use their text.	Through application of standard in the problems assigned – Formative