



## Transition to Algebra Mathematics Curriculum Framework

	2007 Mathematics Curriculum Framework	I CAN Learn® Lesson Number	I CAN Learn® Lesson Title
<b>NUMBER AND OPERATIONS</b>			
1.a.	Compare and contrast the subsets of real numbers. (DOK 1)	MPA-124	Classifying Numbers in the Real Number System
1.b.	Simplify and evaluate expressions using order of operations and use real number properties to justify solutions. (DOK 2)	HA1-003	
		HA1-060	Adding, Subtracting, Multiplying, and Dividing Real Numbers
		HA1-085	Simplifying Expressions Using the Properties of Real Numbers
1.c.	Express, interpret, and compute numbers using scientific notation in meaningful contexts. (DOK 1)	HA1-235	Writing, Multiplying, and Dividing Numbers Written in Scientific Notation
1.d.	Apply the concept of Greatest Common Factor (GCF) and Least Common Multiple (LCM) to monomials with variables. (DOK 2)	HA1-270	Factoring the Greatest Common Monomial Factor from a Polynomial
		HA1-320	Simplifying Rational Expressions
		HA1-335	Finding the LCD of Rational Expressions and Changing Fractions to Equivalent Fractions
1.e.	Use the inverse relationship to develop the concept of roots and perfect squares. (DOK 2)	MM1-565	Finding Squares and Square Roots
		HA1-480	Finding the Square Roots of Rational Numbers
<b>ALGEBRA</b>			
2.a.	Given a literal equation, solve for a specified variable of degree one. (DOK 1)	HA1-175	Solving Literal Equations
2.b.	Explain and illustrate how changes in one variable may result in a change in another variable. (DOK 2)	HA1-436	Identifying Relations
		HA1-437	Identifying Relations as Functions
		HA1-438	Finding the Domain and Range of Functions
2.c.	Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients. (DOK 2)	HA1-115	Using the Addition and Subtraction Properties for Equations
		HA1-120	Using the Multiplication and Division Properties for Equations
		HA1-124	Using a Concrete Model to Solve One- and Two-Step Equations
		HA1-125	Solving Equations Using More Than One Property
		HA1-140	Solving Equations by Combining Like Terms
		HA1-144	Using a Concrete Model to Solve Equations with Variables on Both Sides
		HA1-145	Solving Equations with Variables on Both Sides
2.d.	Use real-world data to express slope as a rate of change. (DOK 2)	MPA-140	Examining Linear Equations in Slope-Intercept Form
		MPA-142	Solving Problems With Linear Functions
2.e.	Graph solutions to linear inequalities. (DOK 2)	HA1-180	Graphing Equations and Inequalities on the Number Line
		HA1-185	Solving Inequalities Using the Addition and Subtraction Properties
		HA1-190	Solving Inequalities Using the Multiplication and Division Properties
2.f.	Write linear equations given slope and y-intercept or two points. (DOK 2)	HA1-405	Determining an Equation of a Line Given the Slope and Coordinates of One Point
		HA1-410	Determining an Equation of a Line Given the Coordinates of Two Points

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2.g.	Identify domain, range, slope, and intercepts of functions. (DOK 1)	HA1-438	Finding the Domain and Range of Functions
2.h.	Develop generalizations to characterize the behaviors of graphs (linear, quadratic, and absolute value). (DOK 2)	MPA-150	Identifying and Graphing Linear and Nonlinear Functions
		HA1-401	How Variations of “m” and “b” Affect the Graph of $y = mx + b$
		HA1-950	Graphing Absolute Value Functions
		HA1-927	Graphing $f(x) = ax^2$ Using Dilations
		HA1-928	Graphing $f(x) = ax^2$ Using Dilations and Reflections
		HA1-929	Graphing $f(x) = ax^2 + c$ Using Dilations, Reflections, and Vertical Translations
2.i.	Classify and determine degree of a polynomial and arrange polynomials in ascending or descending order of a variable. (DOK 1)	HA1-240	Identifying the Degree of Polynomials and Simplifying by Combining Like Terms
2.j.	Apply ratios and use proportional reasoning to solve real-world algebraic problems. (DOK 2)	HA1-360	Expressing Ratios in Simplest Form and Solving Equations Involving Proportions
2.k.	Add, subtract, multiply, and divide polynomial expressions. (DOK 1)	HA1-245	Adding and Subtracting Polynomials
		HA1-920	Simplifying Algebraic Expressions Using the Distributive Property
		HA1-255	Multiplying Two Binomials Using the FOIL Method
		HA1-260	Squaring a Binomial and Finding the Product of a Sum and Difference
2.l.	Analyze the relationship between x and y values, and determine whether a relation is a function. (DOK 2)	HA1-436	Identifying Relations
		HA1-437	Identifying Relations as Functions
<b>GEOMETRY</b>			
3.a.	Apply the Pythagorean Theorem to solve problems. (DOK 2)	HA1-515	Using the Pythagorean Theorem
		HA1-516	Applications of the Pythagorean Theorem
3.b.	Apply proportional reasoning to determine similar figures and find unknown measures. (DOK 2)	MPA-121	Identifying Similar and Congruent Polygons Using Proportions
<b>MEASUREMENT</b>			
4.a.	Solve real-world problems involving measurements (i.e., circumference, perimeter, area, volume, distance, temperature, etc.). (DOK 2)	HA1-890	Using Models to Derive Formulas for Two-Dimensional Geometric Figures
		HA1-891	Using Models to Derive Formulas for Three-Dimensional Solids
4.b.	Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). (DOK 2)	HA1-520	Finding the Distance Between Two Points on a Coordinate Plane
		HA1-876	Applying Length, Midpoint and Slope of a Segment on a Cartesian Plane
<b>DATA ANALYSIS &amp; PROBABILITY</b>			
5.a.	Construct graphs, make predictions, and draw conclusions from tables, line graphs, and scatter plots. (DOK 3)	HA1-545	Making a Frequency Distribution Table
		HA1-965	Determining the Best-Fitting Line
5.b.	Use a given mean, mode, median, and range to summarize and compare data sets including investigation of the different effects that change in data have on these measures of central tendency, and select the appropriate measures of central tendency for a given purpose. (DOK 2)	HA1-540	Finding the Mean, Median, and Mode from Data and Frequency Distribution Tables
		HA1-541	Analyzing Data Using the Measures of Central Tendency and the Range
5.c.	Calculate basic probability of experiments and simulations to make and test conjectures about results. (DOK 3)	HA1-560	Determining Probability of an Event and Complementary Event from a Random Experiment

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the 2007 Mississippi Mathematics Framework Revised - Transition to Algebra document adopted by the Mississippi State Board of Education in 2007.