



7th Grade Correlation to Mathematics Grade level Expectations

GLE	Mathematics Curriculum Framework	Lesson Number	Lesson Title
NUMBER AND NUMBER RELATIONS			
1.	Recognize and compute equivalent representations of fractions, decimals, and percents (i.e., halves, thirds, fourths, fifths, eighths, tenths, hundredths) (N-1-M)	MPA-029	Convert fractions and decimals
		MPA-081	Convert decimals, fractions, and percents I
		MPA-082	Convert decimals, fractions, and percents II
2.	Compare positive fractions, decimals, percents, and integers using symbols (i.e., $<$, $>$, $=$) and position on a number line (N-2-M)	MPA-045	Compare and order integers
		MPA-016	Compare and order decimals
		MPA-031	Compare and order fractions and decimals
3.	Solve order of operations problems involving grouping symbols and multiple operations (N-4-M)	MPA-008	Determine the correct order of operations when multiple operations are performed
4.	Model and apply the distributive property in real-life applications (N-4-M)	HA1-062	Add, subtract, multiply, and divide whole numbers
5.	Multiply and divide positive fractions and decimals (N-5-M)	MPA-123	Model arithmetic of fractions
		MPA-036	Multiply fractions and mixed numbers and simplify
		MPA-037	Divide fractions and mixed numbers and simplify
		MPA-019	Multiply decimals
		MPA-119	Division of decimals
		MPA-122	Model multiplication and division of decimals
6.	Set up and solve simple percent problems using various strategies, including mental math (N-5-M) (N-6-M) (N-8-M)	MPA-083	Find number given percent and total
		MPA-084	Find percent given number and total
		MPA-085	Find total given number and percent
		MPA-086	Solve problems using percent
		MPA-087	Find percent increase and decrease
		MPA-126	Solve real-world problems involving sales tax
		MPA-127	Solve real-world problems involving discounts
		MPA-128	Solve real-world problems involving simple interest
7.	Select and discuss appropriate operations and solve single- and multi-step, real-life problems involving positive fractions, percents, mixed numbers, decimals, and positive and negative integers (N-5-M) (N-3-M) (N-4-M)	<i>Throughout</i>	
8.	Determine the reasonableness of answers involving positive fractions and decimals by comparing them to estimates (N-6-M) (N-7-M)	MPA-033	Estimate computations with fractions and mixed numbers
9.	Determine when an estimate is sufficient and when an exact answer is needed in real-life problems using decimals and percents (N-7-M) (N-5-M)	MPA-006	Determining Reasonableness of Answers and Appropriate Method of Computation
		MPA-134	

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10.	Determine and apply rates and ratios (N-8-M)	MPA-078	Express ratios as fractions and determine equivalency
		MPA-079	Determine unit rates
11.	Use proportions involving whole numbers to solve real-life problems (N-8-M)	MPA-080	Solve proportions
		MPA-110	Solve problems using proportions, scale drawings, models and maps
ALGEBRA			
12.	Evaluate algebraic expressions containing exponents (especially 2 and 3) and square roots, using substitution (A-1-M)	MPA-013 - <i>Partial</i>	Use powers and exponents in expressions
		MPA-014	Evaluate expressions for given variables
13.	Determine the square root of perfect squares and mentally approximate other square roots by identifying the two whole numbers between which they fall (A-1-M)	MPA-064	Find square roots of perfect squares
		MPA-065	Estimate square roots
14.	Write a real-life meaning of a simple algebraic equation or inequality, and vice versa (A-1-M) (A-5-M)	MPA-042	Solve problems using an equation
		MPA-109	Solving and graphing inequalities
15.	Match algebraic inequalities with equivalent verbal statements and vice versa (A-1-M)	MPA-109	Solving and graphing inequalities
		HA1-105	Translating Word Statements into Inequalities
16.	Solve one- and two-step equations and inequalities (with one variable) in multiple ways (A-2-M)	MPA-010	Solve one-step equations of whole numbers using addition and subtraction
		MPA-011	Solve one-step equations of whole numbers using multiplication and division
		MPA-012	Solve one-step equations of whole numbers using all operations
17.	Graph solutions sets of one-step equations and inequalities as points, or open and closed rays on a number line (A-2-M)	MPA-109	Solving and graphing inequalities
18.	Describe linear, multiplicative, or changing growth relationships (e.g., 1, 3, 6, 10, 15, 21, ...) verbally and algebraically (A-3-M) (A-4-M) (P-1-M)	MPA-104	Recognize patterns
19.	Use function machines to determine and describe the rule that generates outputs from given inputs (A-4-M) (P-3-M)	HA1-437	Identifying relations as functions
MEASUREMENT			
20.	Determine the perimeter and area of composite plane figures by subdivision and area addition (M-1-M) (G-7-M)	MPA-068 - <i>Partial</i>	Find the area of irregular figures
21.	Compare and order measurements within and between the U.S. and metric systems in terms of common reference points (e.g., weight/mass and area) (M-4-M) (G-1-M)	MPA-063	Convert units between metric and customary system
		MPA-061	Convert units in metric system
		MPA-062	Convert units in customary system
22.	Convert between units of area in U.S. and metric units within the same system (M-5-M)	MPA-067	Finding the Area of Rectangles and Parallelograms
		MPA-069	Finding the Area of Triangles and Trapezoids
		MPA-071	Find the area of circles
23.	Demonstrate an intuitive sense of comparisons between degrees Fahrenheit and Celsius in real-life situations using common reference points (M-5-M)	MM1-605	Convert between Fahrenheit and Celsius
GEOMETRY			
24.	Identify and draw angles (using protractors), circles, diameters, radii, altitudes, and 2-dimensional figures with given specifications (G-2-M)	MM1-460	Classify and measure angles
25.	Draw the results of reflections and translations of geometric shapes on a coordinate grid (G-3-M)	MPA-108	Graphing translations and reflections on the Coordinate plane
26.	Recognize π as the ratio between the circumference and diameter of any circle (i.e., $p = C/d$ or $p = C/2r$) (G-5-M)	MPA-070	Find the circumference of circles

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27.	Model and explain the relationship between perimeter and area (how scale change in a linear dimension affects perimeter and area) and between circumference and area of a circle (G-5-M)	MPA-111	Comparing perimeters, areas and volumes of similar geometric figures and solids
28.	Determine the radius, diameter, circumference, and area of a circle and apply these measures in real-life problems (G-5-M) (G-7-M) (M-6-M)	MPA-070	Find the circumference of circles
		MPA-071	Find the area of circles
29.	Plot points on a coordinate grid in all 4 quadrants and locate the coordinates of a missing vertex in a parallelogram (G-6-M) (A-5-M)	MPA-046	Graph points on a coordinate plane
30.	Apply the knowledge that the measures of the interior angles in a triangle add up to 180 degrees (G-7-M)	MPA-056	Classify angles
		MPA-057	Identify and apply supplementary and complementary angles
DATA ANALYSIS, PROBABILITY AND DISCRETE MATH			
31.	Analyze and interpret circle graphs, and determine when a circle graph is the most appropriate type of graph to use (D-2-M)	MPA-092	Read and interpret bar, line, and circle graphs
32.	Describe data in terms of patterns, clustered data, gaps, and outliers (D-2-M)	MPA-094	Interpret and construct line plots
		MPA-097	Construct box-and-whiskers plots
33.	Analyze discrete and continuous data in real-life applications (D-2-M) (D-6-M)	MPA-098	Make predictions for graphs and choose the best graph
34.	Create and use Venn diagrams with three overlapping categories to solve counting logic problems (D-3-M)	<i>Lesson In Development</i>	
35.	Use informal thinking procedures of elementary logic involving if/then statements (D-3-M)	MPA-007	Solve problems using logical reasoning
36.	Apply the fundamental counting principle in real-life situations (D-4-M)	MPA-091	Calculate the number of combinations of a set of objects
37.	Determine probability from experiments and from data displayed in tables and graphs (D-5-M)	MPA-090	Find the probability of simple real-life events
		MPA-112	Construct sample spaces for compound events
		MPA-113	Find the probability of compound events through experimentation
38.	Compare theoretical and experimental probability in real-life situations (D-5-M)	MPA-114	Find the odds of events and experimental probability from a math model
PATTERNS, RELATIONS AND FUNCTIONS			
39.	Analyze and describe simple exponential number patterns (e.g., 3, 9, 27 or 31, 32, 33) (P-1-M)	MPA-104	Recognize patterns
40.	Analyze and verbally describe real-life additive and multiplicative patterns involving fractions and integers (P-1-M) (P-4-M)	MPA-104	Recognize patterns
41.	Illustrate patterns of change in length(s) of sides and corresponding changes in areas of polygons (P-3-M)	MPA-111	Comparing perimeters, areas and volumes of similar geometric figures and solids

MM1-Fundamentals of Mathematics

MPA- Pre-Algebra

HA1-Algebra 1

Note: Standards were taken from the Louisiana Grade Level Expectations for Grade 7 document adopted by the Louisiana State Board of Education.