



# Math Teachers Press, Inc.

4850 Park Glen Road, Minneapolis, MN 55416  
 phone (800) 852-2435 fax (952) 546-7502


## Correlation of *Moving with Math® Extensions* Grade 8 To Kentucky Core Content for Mathematics Assessment

		Student Book	Skill Builders
	<b>NUMERATION/COMPUTATION</b>		
	<b>CONCEPTS – Students will describe properties of, define, give examples of, and/or apply to both real-world and mathematical situations:</b>		
<b>MA-M-1.1.1</b>	Rational numbers (integers, fractions, decimals, percents)	7, 9-13, 17, 19-24, 29-33, 38, 67-69, 71-74	3-1, 7-1, 8-1, 9-1, 10-1, 12-1, 12-2, 13-1, 13-2, 14-1, 15-1, 16-1, 17-1, 21-1, 22-1, 23-1, 23-2, 24-1, 27-1, 28-1, 43-1 to 43-3
<b>MA-M-1.1.2</b>	Irrational numbers (square roots and pi only)	60, 64	39-1
<b>MA-M-1.1.3</b>	Meaning of proportion (equivalent ratios)	35, 36, 40, 53	26-1, 26-2, 46-1, 46-2
<b>MA-M-1.1.4</b>	Place value of whole numbers and decimals	1, 27	4-1, 18-1, 19-1, 19-2
<b>MA-M-1.1.5</b>	Positive whole number exponents	5	6-1, 6-2, 57-1
<b>MA-M-1.1.6</b>	Representation of numbers and operations in a variety of equivalent forms using models, diagrams, and symbols (e.g., number lines, 10 by 10 grids, rectangular arrays, numbers sentences)	18, 22, 23, 29, 34	11-2, 11-3, 20-1, 20-2, 25-1, 25-2
	<b>SKILLS – Students will perform the following mathematical operations and/or procedures accurately and efficiently, and explain how they work in real-world and mathematical situations:</b>		

		Student Book	Skill Builders
MA-M-1.2.1	Add, subtract, multiply, and divide rational numbers (fractions, decimals, percents, integers) to solve problems	19-24, 30-33, 60, 71-74	12-1, 12-2, 13-1, 13-2, 14-1, 15-1, 16-1, 17-1, 21-1, 22-1, 23-1, 23-2, 24-1, 27-1, 28-1, 43-1, 51-1, 58-1 to 58-4
MA-M-1.2.2	Compute (e.g., estimate, use pencil and paper, use calculator, round, use mental math) large and small quantities and check for reasonable and appropriate computational results	10, 12, 37	8-1, 24-1, 43-2, 44-1
MA-M-1.2.3	Apply ratios, proportional reasoning, and percents (e.g., constant rate of change, unit pricing)	33, 35, 36, 38, 40, 53	23-1, 26-1, 26-2, 27-1, 28-1
MA-M-1.2.4	Identify and use number theory concepts (prime numbers, prime factorization, composite numbers, factors, multiples, divisibility, greatest common factor (GCF), least common multiple (LCM) to	4, 6, 19	3-1, 6-2, 12-2, 13-1, 13-2
MA-M-1.2.5	Apply order of operations		59-1
	<b>RELATIONSHIPS – Students will show connections and how connections are made between concepts and skills, explain why procedures work, and make generalizations about mathematics in meaningful ways for the following relationships:</b>		
MA-M-1.3.1	How whole numbers, natural numbers, integers, fractions, decimals, percents, and irrational numbers (square roots and pi only) relate to each other (e.g., convert between forms of rational numbers, compare, order)	29, 34, 37	20-1, 20-2, 25-1, 25-2, 51-1
MA-M-1.3.2	How properties such as commutative, associative, distributive, and identities show relationships among operations and may be used to justify steps in solving problems	3	2-1, 2-2
MA-M-1.3.3	How operations (addition and subtraction; multiplication and division; squaring and taking the square root of a number) are inversely related.		8-1

		Student Book	Skill Builders
	<b>GEOMETRY/MEASUREMENT</b>		
	<b>CONCEPTS – Students will describe properties of, define, give examples of, and/or apply to both real-world and mathematical situations:</b>		
<b>MA-M-2.1.1</b>	Basic geometric elements that include points, segments, rays, lines, angles, and planes	41, 43	29-1, 30-1
<b>MA-M-2.1.2</b>	Two-dimensional shapes including circles, regular polygons, quadrilaterals (square, rectangle, rhombus, parallelogram, trapezoid), and triangles (acute, obtuse, right, equilateral, scalene, isosceles)	42, 44, 45	31-1, 31-2
<b>MA-M-2.1.3</b>	Common three-dimensional shapes including spheres, cones, cylinders, prisms (with polygonal bases), and pyramids (with polygonal bases)	66	
<b>MA-M-2.1.4</b>	Congruence, symmetry, and similarity	46, 47, 52, 53	32-1, 32-2, 33-1
<b>MA-M-2.1.5</b>	U.S. Customary and metric units of measurement	56, 57	35-1, 36-1, 37-1, 37-2
	<b>SKILLS – Students will perform the following mathematical operations and/or procedures accurately and efficiently and explain how they work in real-world and mathematical situations:</b>		
<b>MA-M-2.2.1</b>	Identify characteristics (e.g., sides, vertices, angles, faces, edges, congruent parts) of two-dimensional and three-dimensional shapes	47, 52, 53	32-1, 53-1
<b>MA-M-2.2.2</b>	Use appropriate tools and strategies (e.g., combining and subdividing shapes) to find measures of both regular and irregular shapes	62, 63, 64	55-1, 55-2, 56-1
<b>MA-M-2.2.3</b>	Move shapes in a coordinate plane: translate (slide), rotate (turn), reflect (flip), and dilate (magnify, reduce)	46	
<b>MA-M-2.2.4</b>	Estimate measurements in standard units		36-1

		Student Book	Skill Builders
MA-M-2.2.5	Use formulas to find area and perimeter of triangles and quadrilaterals, area and circumference of circles, and surface area and volume of rectangular prisms	58-66	38-1, 39-1, 40-1, 41-1, 55-1, 55-2, 56-1
MA-M-2.2.6	Estimate and determine measurement of angles	43, 48, 50-52	31-1, 33-1, 52-1, 52-2
MA-M-2.2.7	Use Pythagorean theorem to find hypotenuse	54, 55	54-1
	<b>RELATIONSHIPS – Students show connections and how connections are made between concepts and skills, explain why procedures work, and make generalizations about mathematics in meaningful ways for the following relationships:</b>		
MA-M-2.3.1	How measurements and measurement formulas are related or different (perimeter and area; rate, time, and distance; circumference and area of a circle)	58-64	55-1, 55-2, 56-1
MA-M-2.3.2	How two-dimensional and three-dimensional figures are related as seen in different orientations (e.g., top view, side view, three-dimensional shapes drawn on isometric dot paper)	65, 66	41-1
MA-M-2.3.3	How proportional figures are related (scale drawings, similar figures)	52, 53	46-2, 53-1
	<b>PROBABILITY/STATISTICS</b>		
	<b>CONCEPTS – Students will describe properties of, define, give examples of, and/or apply to both real-world and mathematical situations:</b>		
MA-M-3.1.1	Meaning of central tendency (mean, median, mode)	13, 14	47-1
MA-M-3.1.2	Meaning of dispersion (range, cluster, gaps, outliers)	14	47-2
MA-M-3.1.3	Characteristics and appropriateness of graphs (e.g., bar, line, circle), and plots (e.g., line, stem-and-leaf, box-and-whiskers, scatter)	15,16	47-2

		Student Book	Skill Builders
	<b>SKILLS – Students will perform the following mathematical operations and/or procedures accurately and efficiently, and explain who they work in real-world and mathematical situations.</b>		
MA-M-3.2.1	Organize, represent, analyze, and interpret sets of data	14	47-2
MA-M-3.2.2	Construct and interpret displays of data (e.g., table, circle graph, line plot, stem-and-leaf plot, box-and-whisker plot)	15, 16	47-2
MA-M-3.2.3	Find mean, median, mode, and range; recognize outliers, gaps, and clusters of data	13, 14	47-1
MA-M-3.2.4	Calculate theoretical probabilities and tabulate experimental results from simulations	26	47-3
MA-M-3.2.5	Make predictions and draw conclusions from statistical data and probability experiments.		47-2
MA-M-3.2.6	Use counting techniques, tree diagrams, area models, and tables to solve probability problems		
MA-M-3.2.7	Represent probabilities in multiple ways such as fractions, decimals, percents, and area models		
	<b>RELATIONSHIPS – Students will show connections and how connections are made between concepts and skills, explain why procedures work, and make generalizations about mathematics in meaningful ways for the following relationships:</b>		
MA-M-3.3.1	How different representations of data (e.g. tables, graphs, diagrams, plots) are related	15	47-2
MA-M-3.3.2	How theoretical probability and experimental probability are related		

		Student Book	Skill Builders
MA--M-3.3.3	How data gathering, bias issues, faulty data analysis, and misleading representations affect interpretations and conclusions about data (e.g., changing the scale on a graph, polling only a specific group of people, using limited or extremely small sample size)		
MA-M-3.3.4	How probability and statistics are used to make predictions and/or draw conclusions		47-3
	<b>ALGEBRAIC IDEAS</b>		
	<b>CONCEPTS – Students will describe properties of, define, give examples of, and/or apply to both real-world and mathematical situations:</b>		
MA-M-4.1.1	Variables, equations, inequalities, and algebraic expressions	75-80	50-1 to 50-3
MA-M-4.1.2	Functions (e.g., the relationship between time and cost of some long distance phone calls, $y = 2x + 1$ ) through tables, graphs, verbal rules, and algebraic notations	35, 56, 57	35-1, 36-1, 37-1, 37-2
MA-M-4.1.3	Rectangular (Cartesian) coordinate system/grid and ordered pairs	70	49-1
MA-M-4.2.1	Simplify numerical and algebraic expressions		50-3
MA-M-4.2.2	Solve simple equations and inequalities	76-80	50-1 to 50-3
MA-M-4.2.3	Model equations and inequalities correctly (e.g., algebra tiles or blocks), pictorially (e.g., graphs, tables), and abstractly (e.g., equations)	75-77, 79, 80	50-1
MA-M-4.2.4	Use variables to describe numerical patterns	70	42-1
MA-M-4.2.5	Represent and use functions through tables, graphs, verbal rules, and equations	75, 76	31-1
MA-M-4.2.6	Write and solve equations that represent everyday situations	25	

		Student Book	Skill Builders
	<b>RELATIONSHIPS</b> – Students will show connections and how connections are made between concepts and skills, explain why procedures work, and make generalizations about mathematics in meaningful ways for the following relationships:		
<b>MA-M-4.33.1</b>	How everyday situations, tables, graphs, patterns, verbal rules, and equations relate to each other	75, 76	42-1
<b>MA-M-4.3.2</b>	How the change in one variable affects the change in another variable (e.g., if rate remains constant, an increase in time results in an increase in distance)		55-1