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West Virginia Mathematics Content Standards Correlated to *Moving with Math Moving with Algebra Grade 7*

		Part A Student Book Skill Builders (SB)	Part B Student Book Skill Builders (SB)
STANDARD 1. NUMBER AND OPERATIONS			
M.O.7.1.1	compare, order, and differentiate among integers, decimals, fractions, and irrational numbers using multiple representations (e.g., symbols, manipulatives, graphing on a number line)	6, 7, 62-64, 80, 84-86, 89, 90, 134-136, 140-142, 161-168 SB: 5, 6, 54, 61, 65, 67-69, 110-113, 115, 116, 130-132, 139, 144, 145	216, 217, 241, 242 SB: 184, 185, 200, 201
M.O.7.1.2	model the relationship between perfect squares and square roots using physical representations; estimate square root and evaluate using technology		216, 217 SB: 184, 185
M.O.7.1.3	using simple computation and problem-solving situations, demonstrate fluency and justify solutions in performing operations with rational numbers including negative numbers for:	32-34, 54, 55, 58, 59, 78, 105, 106, 116, 118, 119, 145, 146, 159, 160 SB: 27, 28, 44-46, 51-53, 87, 88, 101, 119, 128, 129	248 SB: 204
•	adding	26, 27, 68-71, 87, 93-98, 101, 123, 124, 143, 144 SB: 19, 20, 56, 57, 66, 73-79, 82, 103, 118, 141, 142	244 SB: 202, 204

		Part A Student Book Skill Builders (SB)	Part B Student Book Skill Builders (SB)
•	subtraction	28, 29, 73, 87, 93-97, 100, 102, 123, 125, 143, 144 SB: 21-24, 58, 73- 78, 80, 81, 83, 103, 117, 141, 142	245 SB: 203, 204
•	multiplying	34-40, 74, 75, 107-112, 126, 147-152 SB: 29-34, 59, 89- 95, 120-124, 127, 143	246 SB: 205
•	dividing	42-51, 76, 77, 113-115, 127, 153-157 SB: 35-41, 60, 96- 98, 125-127, 143	247, 248 SB: 206
M.O.7.1.4	justify the use of the commutative, associative, distributive, identity and inverse properties to simplify numeric expressions	10-13, 15 SB: 9, 10, 12	263, 264, 298 SB: 209, 210
M.O.7.1.5	analyze and solve grade-appropriate real-world problems with whole numbers, integers, decimals, fractions and percents including problems involving:	32-34, 54, 55, 58, 59, 78, 105, 106, 116, 118, 119, 145, 146, 159, 160 SB: 27, 28, 44- 46, 51-53, 87, 88, 101, 119, 128, 129	Throughout
•	discounts	169, 173-175 SB: 136	
•	interest	177, 178 SB: 138	
•	taxes	170, 176 SB: 137	
•	tips	41	
•	percent increase or decrease	169 SB: 133	231-234 SB: 197

		Part A Student Book Skill Builders (SB)	Part B Student Book Skill Builders (SB)
•	justify solutions including using estimation and reasonableness	30-34, 41, 52-54, 55, 58, 59, 78, 103-106, 116, 118, 119, 145, 146, 159, 160 SB: 25, 26, 42, 43, 84-88, 100, 124, 135	
M.O.7.1.6	use inductive reasoning to find and justify the laws of exponents with numeric bases	16-19 SB: 13, 14	215, 294-297, 300, 301, 303 SB: 229, 247, 252
M.O.7.1.7	solve problems using numbers in scientific notation (positive and negative exponents) with and without technology, and interpret from real-life contexts	22, 23, 25 SB: 17, 18	
	STANDARD 2. ALGEBRA		
M.O.7.2.1	use inductive reasoning to find missing elements in a variety of arithmetic and geometric patterns using algebraic sequences and series	85, 86, 88, 122 SB: 102, 140	199, 307-309 SB: 234, 235
M.O.7.2.2	evaluate algebraic expressions with whole numbers, integers, absolute value and exponents using the order of operations	14 SB: 11	290-293 SB: 226-228
M.O.7.2.3	solve problems by creating an input/output function table (including, but not limited to, spreadsheets) to predict future values, given a real-world situation involving rational numbers		231-234, 311-317, 332, 333 SB: 196, 197, 236-239, 254
M.O.7.2.4	analyze proportional relationships in real-world situations, select an appropriate method to determine the solution and justify reasoning for choice of method to solve	122 SB: 102	222, 225-227, 275-278 SB: 187-189, 191, 192, 222, 223, 246
M.O.7.2.5	solve one-step linear equations and inequalities using a variety of strategies containing rational numbers with integer solutions; graph solutions and justify the selection of the strategy and the reasonableness of the solution		253-259, 281-284, 287 SB: 211-215, 225
M.O.7.2.6	plot lines within the Cartesian coordinate plane from a table of values to solve mathematical real-world problems		232, 312-314, 316, 317, 332, 333 SB: 197, 236-239, 254
M.O.7.2.7	determine the slope of a line from its graphical representation		320-326 SB: 241-243

		Part A Student Book Skill Builders (SB)	Part B Student Book Skill Builders (SB)
M.O.7.2.8	represent algebraically and solve real-world application problems and justify solutions		222, 225-227, 231, 232, 312, 273-280, 283, 284, 314-317, 332, 333 SB: 187-189, 191, 192, 196, 197, 222-225, 236-239, 245, 246. 254
M.O.7.2.9	identify a real life problem involving proportionality; make a hypothesis as to the outcome; develop, justify, and implement a method to collect, organize, and analyze data; generalize the results		
STANDARD 3. GEOMETRY			
M.O.7.3.1	identify and construct:		194, 195 SB: 163
•	angle- pairs adjacent, complementary, supplementary, vertical		203 SB: 167-170
•	congruent segments and angles		
•	perpendicular bisectors of segments		
•	angle-bisectors		
M.O.7.3.2	apply line symmetry to classify plane figures		205 SB: 173
M.O.7.3.3	apply rotations, reflections, translations to plane figures and determine the coordinates of its transformation and compare and contrast the new figure with the original		204 SB: 171, 172
M.O.7.3.4	pose and solve ratio and proportion problems including scale drawings and similar polygons		222-227 SB: 187, 189, 191, 192
M.O.7.3.5	solve problems and explain the relationships among scale factor and area and volume including:		211 SB: 183
•	square of a scale factor		
•	cube of a scale factor		
M.O.7.3.6	solve mathematical real-world problems using compound geometric figures		209, 213
STANDARD 4. MEASUREMENT			
M.O.7.4.1	select and apply an appropriate method to solve (including, but not limited to, formulas) justify the method and the reasonableness of the solution, given a real-world problem solving situation involving:		
•	perimeter		206-208 SB: 174-176

		Part A Student Book Skill Builders (SB)	Part B Student Book Skill Builders (SB)
•	circumference		209 SB: 177
•	area		210, 211 SB: 178, 179
•	surface area of prisms (rectangular and triangular)		
•	volume of prisms and cylinders		212-214 SB: 180-182
•	distance and temperature (Celsius, Fahrenheit)		279, 280, 316 SB: 224
M.O.7.4.2	use the Pythagorean Theorem to find the length of any side of a right triangle and apply to problem solving situations		218, 219 SB: 186
M.O.7.4.3	convert units of measurement, linear, area and volume, within customary and metric systems		233, 234 SB: 198, 199
	STANDARD 5. DATA ANALYSIS AND PROBABILITY		
M.O.7.5.1	determine theoretical probability of an event, make and test predictions through experimentation		
M.O.7.5.2	determine combinations and permutations by constructing sample spaces (e.g., listing, tree diagrams, frequency distribution tables)		
M.O.7.5.3	collect, organize, graphically represent, and interpret data displays including frequency distributions, line-plots, scatter plots, box and whiskers, and multiple-line graphs	179 SB: 101	
M.O.7.5.4	analyze and solve application problems involving measures of central tendency (mean, median, mode) and dispersion (range) from data graphs, tables, and experiments using appropriate technology to compare two sets of data	56, 57 SB: 47-50	