



Math Teachers Press, Inc.

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VIRGINIA MATHEMATICS STANDARDS OF LEARNING CORRELATED TO MOVING WITH ALGEBRA® GRADE 8

		Part A Lesson Plan/ Student Book Skill Builders (SB)	Part B Lesson Plan/Student Book Skill Builders (SB)
NUMBER AND NUMBER SENSE			
8.1	The student will compare and order real numbers.	89, 90, 135, 167 SB: 67-69, 112, 113, 144	
8.2	The student will describe the relationships between the subsets of the real number system.	62, 63, 80 SB: 61	
8.3	The student will		
a.	estimate and determine the two consecutive integers between which a square root lies; and		217 SB: 185
b.	determine both the positive and negative square roots of a given perfect square.		
COMPUTATION AND ESTIMATION			
8.4	The student will solve practical problems involving consumer applications.	105, 106, 108, 110, 115, 118, 119, 122, 172-178 SB: 87, 88, 91, 93, 101, 102, 136-138	274-278 SB: 188, 191, 192, 222, 223, 246
MEASUREMENT AND GEOMETRY			
8.5	The student will use the relationships among pairs of angles that are vertical angles, adjacent angles, supplementary angles, and complementary angles to determine the measure of unknown angles.		194, 195, 200 SB: 163, 167
8.6	The student will		
a.	solve problems, including practical problems, involving volume and surface area of cones and square-based pyramids; and		
b.	describe how changing one measured attribute of a rectangular prism affects the volume and surface area.		SB: 256
8.7	The student will		
a.	given a polygon, apply transformations, to include translations, reflections, and dilations, in the coordinate plane; and		204 SB: 171
b.	identify practical applications of transformations.		
8.8	The student will construct a three-dimensional model, given the top or bottom, side, and front views.		193 SB: 162
8.9	The student will		
a.	verify the Pythagorean Theorem; and		218 SB: 186
b.	apply the Pythagorean Theorem.		219 SB: 186

		Part A Lesson Plan/ Student Book Skill Builders (SB)	Part B Lesson Plan/Student Book Skill Builders (SB)
8.10	The student will solve area and perimeter problems, including practical problems, involving composite plane figures.		209 SB: 255
PROBABILITY AND STATISTICS			
8.11	The student will		
a.	compare and contrast the probability of independent and dependent events; and		
b.	determine probabilities for independent and dependent events.		
8.12	The student will		
a.	represent numerical data in boxplots;		
b.	make observations and inferences about data represented in boxplots; and		
c.	compare and analyze two data sets using boxplots.		
8.13	The student will		
a.	represent data in scatterplots;		
b.	make observations about data represented in scatterplots; and		
c.	use a drawing to estimate the line of best fit for data represented in a scatterplot.		
PATTERNS, FUNCTIONS, AND ALGEBRA			
8.14	The student will		
a.	evaluate an algebraic expression for given replacement values of the variables; and		
b.	simplify algebraic expressions in one variable.		262-265, 268, 269 SB: 209, 210, 220
8.15	The student will		
a.	determine whether a given relation is a function; and		
b.	determine the domain and range of a function.		
8.16	The student will		
a.	recognize and describe the graph of a linear function with a slope that is positive, negative, or zero;		320, 321 SB: 241
b.	identify the slope and y-intercept of a linear function, given a table of values, a graph, or an equation in $y = mx + b$ form;		321, 324-326 SB: 241, 249
c.	determine the independent and dependent variable, given a practical situation modeled by a linear function;		312, 316
d.	graph a linear function given the equation in $y = mx + b$ form; and		324, 325
e.	make connections between and among representations of a linear function using verbal descriptions, tables, equations, and graphs.		312-317 SB: 236, 254
8.17	The student will solve multistep linear equations in one variable on one or both sides of the equation, including practical problems that require the solution of a multistep linear equation in one variable.		261, 266, 267, 270-274 SB: 216, 217, 219, 221
8.18	The student will solve multistep linear inequalities in one variable with the variable on one or both sides of the inequality symbol, including practical problems, and graph the solution on a number line.		285-387 SB: 225