



Math Teachers Press, Inc.

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SOUTH CAROLINA ACADEMIC STANDARDS FOR MATHEMATICS CORRELATED TO *MOVING WITH MATH INTERMEDIATE/MIDDLE (IM) GRADE 6*

		IM1 <i>Number, Reasoning & Data</i> Student Book Skill Builders (SB)	IM2 <i>Fractions, Decimals & Percent</i> Student Book Skill Builders (SB)	IM3 <i>Geometry, Measurement, Graphing</i> Student Book Skill Builders (SB)
MATHEMATICAL PROCESSES				
6-1:	The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representations.			
6-1.1	Generate and solve complex abstract problems that involve modeling physical, social, and/or mathematical phenomena.	55	66	10
6-1.2	Evaluate conjectures and pose follow-up questions to prove or disprove conjectures.	15	71 (T.G.)	25
6-1.3	Use inductive and deductive reasoning to formulate mathematical arguments.	15	75 (T.G.)	14
6-1.4	Understand equivalent symbolic expression as distinct symbolic forms that represent the same relationship.	16	67	56
6-1.5	Generalize mathematical statements based on inductive and deductive reasoning.	13, 14	9	9
6-1.6	Use correct and clearly written or spoken words, variables, and notations to communicate about significant mathematical tasks.	50	18	42
6-1.7	Generalize connections among a variety of representational forms and real-world situations.	78	3	11

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6-1.8	Use standard and nonstandard representations to convey and support mathematical relationships.	13	67	4
NUMBER AND OPERATION				
6-2:	The student will demonstrate through the mathematical processes an understanding of the concepts of whole-number percentages, integers, and ratio and rate; the addition and subtraction of fractions; accurate, efficient, and generalizable methods of multiplying and dividing fractions and decimals; and the use of exponential notation to represent whole numbers.			
6-2.1	Understand whole-number percentages through 100.		67 SB: 29-1 to 29-3	
6-2.2	Understand integers.	63-66 SB: 59-1 to 59-3	SB: 59-1	
6-2.3	Compare rational numbers and whole-number percentages through 100 by using the symbols \leq , \geq , $<$, $>$, and $=$.		10, 11 SB: 13-1, 13-2, 24-1, 24-2	
6-2.4	Apply an algorithm to add and subtract fractions.		14, 15, 19-21 SB: 15-1 to 15-3, 17-3	
6-2.5	Generate strategies to multiply and divide fractions and decimals.		28-34, 57-62 SB: 19-1, 19-2, 20-1, 20-2, 27-1 to 27-3, 28-2	
6-2.6	Understand the relationship between ratio/rate and multiplication/division.		9 SB: 12-9	SB: 12-1
6-2.7	Apply strategies and procedures to determine values of powers of 10, up to 10^6 .			
6-2.8	Represent the prime factorization of numbers by using exponents.	18 SB: 4-5	SB: 4-3	

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6-2.9	Represent whole numbers in exponential form.	16, 17 SB: 4-4	SB: 4-1	
ALGEBRA				
6-3:	The student will demonstrate through the mathematical processes an understanding of writing, interpreting, and using mathematical expressions, equations, and inequalities.			
6-3.1	Analyze numeric and algebraic patterns and pattern relationships.	73-75 SB: 44-2, 44-3	SB: 44-1	
6-3.2	Apply order of operations to simplify whole-number expressions.	22 SB: 5-4, 5-6, 5-8	SB: 5-2	
6-3.3	Represent algebraic relationships with variables in expressions, simple equations, and simple inequalities.	70-72 SB: 56-5	SB: 56-1	
6-3.4	Use the commutative, associative, and distributive properties to show that two expressions are equivalent.	SB: 5-5		
6-3.5	Use inverse operations to solve one-step equations that have whole-number solutions and variables with whole number coefficients.	71, 72 SB: 56-2, 56-3		
GEOMETRY				
6-4:	The student will demonstrate through the mathematical processes an understanding of shape, location, and movement within a coordinate system; similarity, complementary, and supplementary angles; and the relationship between line and rotational symmetry.			

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6-4.1	Represent with ordered pairs of integers the location of points in a coordinate grid.	77 SB: 43-1, 44-4	SB: 43-1	15, 16
6-4.2	Apply strategies and procedures to find the coordinates of the missing vertex of a square, rectangle, or right triangle when given the coordinates of the polygon's other vertices.			
6-4.3	Generalize the relationship between line symmetry and rotational symmetry for two-dimensional shapes.			17
6-4.4	Construct two-dimensional shapes with line or rotational symmetry.			17 SB: 60-1
6-4.5	Identify the transformation(s) used to move a polygon from one location to another in the coordinate plane.			
6-4.6	Explain how transformations affect the location of the original polygon in the coordinate plane.			
6-4.7	Compare the angles, side lengths, and perimeters of similar shapes.			63, 64 SB: 52-6
6-4.8	Classify shapes as similar.			62
6-4.9	Classify pairs of angles as either complementary or supplementary.			23 SB: 54-1
	MEASUREMENT			
6-5:	The student will demonstrate through the mathematical processes an understanding of surface area; the perimeter and area of irregular shapes; the relationships among the circumference, diameter, and radius of a circle; the use of proportions to determine unit rates; and the use of scale to determine distance.			

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6-5.1	Explain the relationships among the circumference, diameter, and radius of a circle.			13, 14 SB: 35-1, 35-2
6-5.2	Apply strategies and formulas with an approximation if π (3.14 or $22/7$) to find the circumference and area of a circle.			SB: 38-12
6-5.3	Generate strategies to determine the surface area of a rectangular prism and a cylinder.			54 SB: 39-4
6-5.4	Apply strategies and procedures to estimate the perimeters and areas of irregular shapes.			49 SB: 38-5, 38-13
6-5.5	Apply strategies and procedures of combining and subdividing to find the perimeters and areas of irregular shapes.			45, 49 SB: 38-5
6-5.6	Use proportions to determine unit rates.			58, 59 SB: 52-3
6-5.7	Use a scale to determine distance.			60, 61 SB: 52-4, 52-5
	DATA ANALYSIS AND PROBABILITY			
6-6:	The student will demonstrate through the mathematical processes an understanding of the relationships within one population or sample.			
6-6.1	Predict the characteristics of one population based on the analysis of sample data.			
6-6.2	Organize data in frequency tables, histograms, or stem-and-leaf plots as appropriate.			71, 75
6-6.3	Analyze which measure of central tendency (mean, median, or mode) is the most appropriate for a given purpose.	62 (T.G.)		

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6-6.4	Use theoretical probability to determine the sample space and probability for one- and two-stage events such as tree diagrams, models, lists, charts, and pictures.		75 SB: 57-3	
6-6.5	Apply procedures to calculate the probability of complementary events.		78 SB: 57-4, 58-1, 58-4	