



Math Teachers Press, Inc.

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MASSACHUSETTS MATHEMATICS CURRICULUM FRAMEWORK 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)
NUMBER SENSE AND OPERATIONS				
6.N.1	Demonstrate an understanding of positive integer exponents, in particular, when used in powers of ten, e.g., 10^2 , 10^5 .	16, 17 SB: 4-4	SB: 4-1	
6.N.2	Demonstrate an understanding of place value to billions and thousandths.	6 SB: 1-3	45 SB: 1-1, 23-1	
6.N.3	Represent and compare very large (billions) and very small (thousandths) positive numbers in various forms such as expanded notation without exponents, e.g., $9724 = 9 \times 1000 + 7 \times 100 + 2 \times 10 + 4$.	3, 7, 8 SB: 1-5, 2-3, 2-4	45, 49 SB: 23-1	
6.N.4	Demonstrate an understanding of fractions as a ratio of whole numbers, as parts of unit wholes, as parts of a collection, and as locations on the number line.		2-5 SB: 11-1 to 11-4, 11-6	
6.N.5	Identify and determine common equivalent fractions, mixed numbers, decimals, and percents		6, 13, 47, 67, 68, 69 SB: 12-1, 12-3, 12-4, 12-6, 14-1, 25-1, 30-1, 30-3, 30-5	

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6.N.6	Find and position integers, fractions, mixed numbers, and decimals (both positive and negative) on the number line.	67 SB: 59-2	5, 43 SB: 21-2, 23-2, 59-1	SB: 11-1, 14-1, 21-1, 59-1
6.N.7	Compare and order integers (including negative integers), and positive fractions, mixed numbers, decimals, and percent.	66 SB: 59-3	10, 11, 49, 51 SB: 13-1, 13-2, 13-5, 24-1, 24-2, 59-1	SB: 59-1
6.N.8	Apply number theory concepts – including prime and composite numbers, prime factorization, greatest common factor, least common multiple, and divisibility rules for 2, 3, 4, 5, 6, 9, and 10 – to the solution of problems.	13-15, 18 SB: 4-2, 4-3, 4-5, 4-6	8, 18 SB: 4-2, 4-3	
6.N.9	Select and use appropriate operations to solve problems involving addition, subtraction, multiplication, division, and positive integer exponents with whole numbers, and with positive fractions, mixed numbers, decimals, and percents.	29, 30, 50, 53, 54 SB: 9-3, 45-1, 45-2, 45-8	35, 36, 56, 64 SB: 45-1, 45-2, 45-3, 45-7, 45-9, 45-14	
6.N.1 0	Use the number line to model addition and subtraction of integers, with the exception of subtracting negative integers.	68, 69 SB: 59-5		SB: 59-2
6.N.1 1	Apply the Order of Operations for expressions involving addition, subtraction, multiplication, and division with grouping symbols (+, -, x, ÷).	SB: 5-4, 5-6, 5-8	SB: 5-2	

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6.N.1 2	Demonstrate an understanding of the inverse relationship of addition and subtraction and use that understanding to simplify computation and solve problems.	26 SB: 7-2		
6.N.1 3	Accurately and efficiently add, subtract, multiply, and divide (with double-digit divisors) whole numbers and positive decimals.	23-26, 32-48 SB: 6-1 to 6-3, 7-1 to 7-4, 8-1 to 8-7, 9-1 to 9-5, 10-1 to 10-3, 10-6, 10-7	54, 57-64 SB: 26-2, 26-3, 27-1 to 27-6, 28-1, 28-2, 28-4, 28-6	
6.N.1 4	Accurately and efficiently add, subtract, multiply, and divide positive fractions and mixed numbers. Simplify fractions.		14-17, 19-23, 30, 31 SB: 15-1 to 15-3, 16-1 to 16-4, 17-1 to 17-4, 18-1, 18-2, 19-1, 20-1 to 20-5	
6.N.1 5	Add and subtract integers, with the exception of subtracting negative integers.	68, 69 SB: 59-5 to 59-7		
6.N.1 6	Estimate results of computations with whole numbers, and with positive fractions, mixed numbers, decimals, and percents. Describe reasonableness of estimates.	27, 28, 48, 49, 51 SB: 49-1, 49-2, 50-1, 50-2	25, 56, 65 SB: 18-3, 18-4, 45-3, 45-5, 45-9, 45-11, 49-1, 50-1	
	PATTERNS, RELATIONS, AND ALGEBRA			
6.P.1	Analyze and determine the rules for extending symbolic, arithmetic, and geometric patterns and progressions, e.g., ABBCCC; , 5, 9, 13..; 3, 9, 27,...	74, 75 SB: 44-1 to 44-3, 44-6	SB: 44-1	21, 22 SB: 44-1

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6.P.2	Replace variables with given values and evaluate/simplify.			
6.P.3	Use the properties of equality to solve problems.	71, 72 SB: 56-2, 56-3		
6.P.4	Represent real situations and mathematical relationships with concrete models, table, graphs, and rules in words and with symbols, e.g., input-out-put tables.	73, 76, 78 SB: 44-4, 44-5		74 SB: 44-5
6.P.5	Solve linear equations using concrete models, tables, graphs, and paper-pencil method.	71, 72, 78 SB: 56-2, 56-3		
6.P.6	Produce and interpret graphs that represent the relationship between two variables in everyday situations.	78 SB: 44-4		74 SB: 44-5
6.P.7	Identify and describe relationships between two variables with a constant rate of change. Contrast these with relationships where the rate of change is not constant.			
	GEOMETRY			
6.G.1	Collect, sort, organize, and draw conclusions about data using concrete objects, pictures, numbers, and graphs.	61 SB: 46-5		66-76 SB: 47-2 to 47-6, 48-1, 48-2
6.G.2	Identify three-dimensional shapes (e.g., cubes, prisms, spheres, cones, and pyramids) based on their properties, such as edges and faces.			11, 12 SB: 34-6

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6.G.3	Identify relationships among points, lines, and planes, e.g., intersecting, parallel, perpendicular.			3, 4 SB: 32-1 to 32-5
6.G.4	Graph points and identify coordinates of points on the Cartesian coordinate plane (all four quadrants).	77 SB: 43-1	SB: 43-1	15, 16 SB: 43-1
6.G.5	Find the distance between two points on horizontal or vertical number lines.			SB: 59-1
6.G.6	Predict, describe, and perform transformations on two-dimensional shapes, e.g., translations, rotations, and reflections.			20 SB: 60-4
6.G.7	Identify types of symmetry, including line and rotational.			17 SB: 60-1
6.G.8	Determine if two shapes are congruent by measuring sides or a combination of sides and angles, as necessary; or by motions or series of motions, e.g, translations, rotations, and reflections.			19
6.G.9	Match three-dimensional objects and their two-dimensional representations, e.g., nets, projections, and perspective drawings.			12, 54, 55 SB: 34-7, 39-1, 39-4
	MEASUREMENT			
6.M.1	Apply the concepts of perimeter and area to the solution of problems. Apply formulas where appropriate.			40-47 SB: 38-1 to 38-4, 38-6 to 38-8, 38-11
6.M.2	Identify, measure, describe, classify, and construct various angles, triangles, and quadrilaterals.			5, 6, 8, 9, 23, 24 SB: 33-1, 34-3 to 34-5, 37-1 to 37-3

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6.M.3	Solve problems involving proportional relationships and units of measurements, e.g., same system unit conversions, scale models, maps, and speed.			31, 38, 39, 60, 61 SB: 36-4, 42-1, 45-1, 52-4, 52-5
6.M.4	Find areas of triangles and parallelograms. Recognize that shapes with the same number of sides but different appearances can have the same area. Develop strategies to find the area of more complex shapes.			43-51 SB: 38-4 to 38-7, 38-10
6.M.5	Identify, measure, and describe circles and the relationships of the radius, diameter, circumference and area.			13, 14 SB: 35-1, 35-2
6.M.6	Find volumes and surface areas of rectangular prisms.			52-54 SB: 39-2 to 39-5
6.M.7	Find the sum of the angles in simple polygons (up to eight sides) with and without measuring the angles.			27 SB: 55-2
	DATA ANALYSIS, STATISTICS, AND PROBABILITY			
6.D.1	Describe and compare data sets using the concepts of median, mean, mode, maximum and minimum, and range.	59-62 SB: 46-1 to 46-4		65 SB: 46-1
6.D.2	Construct and interpret stem-and-leaf plots, line plots, and circle graphs.		37, 38 SB: 48-1 to 48-3	66, 75 SB: 47-3, 48-1
6.D.3	Use tree diagrams and other models (e.g., lists and tables) to represent possible or actual outcomes of trials. Analyze the outcomes.		75, 76, 78 SB: 57-2, 57-3, 58-1	

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6.D.4	Predict the probability of outcomes of simple experiments (e.g., tossing a coin, rolling a die) and test the predictions. Use appropriate ratios between 0 and 1 to represent the probability of the outcome and associate the probability with the likelihood of the event.		73-75, 78 SB: 57-1 to 57-4, 58-1, 58-4	