



Math Teachers Press, Inc.

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LOUISIANA GRADE LEVEL EXPECTATIONS TO MOVING WITH MATH® MATH-BY-TOPIC LEVEL D GRADE 7

	Student Book	Skill Builders
NUMBER AND NUMBER RELATIONS		
1. Recognize and compute equivalent representations of fractions, decimals, and percents (i.e., halves, thirds, fourths, fifths, eighths, tenths, hundredths) (N-1-M)	DII: 70-77 DIII: 7-20, 22-23	20-1 to 20-4, 25-3, 25-4
2. Compare positive fractions, decimals, percents, and integers using symbols (i.e., $<$, \leq , $=$, \geq , $>$) and position on a number line (N-2-M)	DII: 29, 33, 56, 57, 65 DV: 9	11-4, 18-4, 48-1, 48-2
3. Solve order of operations problems involving grouping symbols and multiple operations (N-4-M)	DV: 58-62	59-1
4. Model and apply the distributive property in real-life applications (N-4-M)	DI: 14, 15	2-3
5. Multiply and divide positive fractions and decimals (N-5-M)	DII: 37-46, 83-86, 88-91	14-1 to 14-3, 16-1, 16-2, 22-1, 22-3, 23-1, 23-2, 24-1, 24-2
6. Set up and solve simple percent problems using various strategies, including mental math (N-5-M) (N-6-M) (N-8-M)	DIII: 38-40	27-3, 28-1, 28-2, 51-1, 51-2
7. Select and discuss appropriate operations and solve single- and multi-step, real-life problems involving positive fractions, percents, mixed number, decimals, and positive and negative integers (N-5-M) (N-3-M) (N-4-M)	DI: 58-64 DII: 49, 50 DV: 10	43-1 to 43-6
8. Determine the reasonableness of answers involving positive fractions and decimals by comparing them to estimates (N-6-M) (N-7-M)	DII: 48, 82	22-2, 23-3, 44-4
9. Determine when an estimate is sufficient and when an exact answer is needed in real-life problems using decimals and percents (N-7-M) (N-5-M)	DII: 100	
10. Determine and apply rates and ratios (N-8-M)	DIII: 29, 30, 32, 34, 37 DIV: 86-87	25-1, 25-2
11. Use proportions involving whole numbers to solve real-life problems (N-8-M)	DIII: 27, 33-36 DIV: 87, 88	26-3
ALGEBRA		

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12.	Evaluate algebraic expressions containing exponents (especially 2 and 3) and square roots, using substitution (A-1-M)	DV: 63	
13.	Determine the square root of perfect squares and mentally approximate other square roots by identifying the two whole numbers between which they fall (A-1-M)	DIV: 32	54-1
14.	Write a real-life meaning of a simple algebraic equation or inequality, and vice versa (A-1-M) (A-5-M)	DV: 39-42	50-1
15.	Match algebraic inequalities with equivalent verbal statements and vice versa (A-1-M)		
16.	Solve one- and two-step equations and inequalities (with one variable) in multiple ways (A-2-M)	DV: 48-55, 69, 70	50-2 to 50-4
17.	Graph solutions sets of one-step equations and inequalities as points, or open and closed rays on a number line (e.g., $x = 5$, $x < 5$, $x \leq 5$, $x > 5$, $x \geq 5$) (A-2-M)	DV: 56	50-3
18.	Describe linear, multiplicative, or changing growth relationships (e.g., 1, 3, 6, 10, 15, 21, ...) verbally and algebraically (A-3-M) (A-4-M) (P-1-M)	DI: 4, 6, 32, 33	42-1, 42-2
19.	Use <i>function machines</i> to determine and describe the rule that generates outputs from given inputs (A-4-M) (P-3-M)	DV: 66	
MEASUREMENT			
20.	Determine the perimeter and area of composite plane figures by subdivision and area addition (M-1-M) (G-7-M)		
21.	Compare and order measurements within and between the U.S. and metric systems in terms of common reference points (e.g., weight/mass and area) (M-4-M) (G-1-M)	DIV: 54-58	
22.	Convert between units of area in U.S. and metric units within the same system (M-5-M)	DIV: 54, 55	
23.	Demonstrate an intuitive sense of comparisons between degrees Fahrenheit and Celsius in real-life situations using common reference points (M-5-M)	DIV: 42	
GEOMETRY			
24.	Identify and draw angles (using protractors), circles, diameters, radii, altitudes, and 2-dimensional figures with given specifications (G-2-M)	DIV: 8, 10, 11, 16	31-1, 32-1, 32-2
25.	Draw the results of reflections and translations of geometric shapes on a coordinate grid (G-3-M)		
26.	Recognize π as the ratio between the circumference and diameter of any circle (i.e., $\pi = C/d$ or $\pi = C/2r$) (G-5-M)	DIV: 68, 69	39-2

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27.	Model and explain the relationship between perimeter and area (how scale change in a linear dimension affects perimeter and area) and between circumference and area of a circle (G-5-M)	DIV: 75	
28.	Determine the radius, diameter, circumference, and area of a circle and apply these measures in real-life problems (G-5-M) (G-7-M) (M-6-M)	DIV: 8, 68-70	39-1, 39-2, 56-1
29.	Plot points on a coordinate grid in all 4 quadrants and locate the coordinates of a missing vertex in a parallelogram (G-6-M) (A-5-M)	DV: 14-16	49-2
30.	Apply the knowledge that the measures of the interior angles in a triangle add up to 180 degrees (G-7-M)	DIV: 26-28	52-2
	DATA ANALYSIS, PROBABILITY, AND DISCRETE MATH		
31.	Analyze and interpret circle graphs, and determine when a circle graph is the most appropriate type of graph to use (D-2-M)	DIV: 94	
32.	Describe data in terms of patterns, clustered data, gaps, and outliers (D-2-M)		
33.	Analyze discrete and continuous data in real-life applications (D-2-M) (D-6-M)		
34.	Create and use Venn diagrams with three overlapping categories to solve counting logic problems (D-3-M)		
35.	Use informal thinking procedures of elementary logic involving <i>if/then</i> statements (D-3-M)		
36.	Apply the fundamental counting principle in real-life situations (D-4-M)	DIV: 97	
37.	Determine probability from experiments and from data displayed in tables and graphs (D-5-M)	DIV: 95, 96	47-3
38.	Compare theoretical and experimental probability in real-life situations (D-5-M)		
	PATTERNS, RELATIONS, AND FUNCTIONS		
39.	Analyze and describe simple exponential number patterns (e.g., 3, 9, 27 or 3^1 , 3^2 , 3^3) (P-1-M)	DI: 31	6-2
40.	Analyze and verbally describe real-life additive and multiplicative patterns involving fractions and integers (P-1-M) (P-4-M)	DI: 32, 33	42-1
41.	Illustrate patterns of change in length(s) of sides and corresponding changes in areas of polygons (P-3-M)		
	DI: Numeration and Whole Numbers		
	DII: Fractions and Decimals		
	DIII: Problem Solving with Percent		
	DIV: Geometry and Measurement		
	DV: Algebra		