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3/06

# LOUISIANA GRADE LEVEL EXPECTATIONS TO MOVING WITH MATH® INTERMEDIATE/MIDDLE (IM) GRADE 5

| | | IM1 *Number, Reasoning & Data* Student Book Skill Builders (SB) | IM2 *Fractions, Decimals & Percent* Student Book Skill Builders (SB) | IM3 *Geometry, Measurement, & Graphing* Student Book Skill Builders (SB) |
|---|---|---|---|---|
| | **NUMBER AND NUMBER RELATIONS** | | | |
| **1.** | Differentiate between the terms *factor* and *multiple*, and *prime* and *composite*(**N-1-M**) | 13-15, 18<br>**SB:** 4-11 to 4-3 | **SB:** 4-2 | **SB:** 4-1 |
| **2.** | Recognize, explain, and compute equivalent fractions for common fractions (**N-1-M**) (**N-3-M**) | | 6-9<br>**SB:** 12-1 to 12-7, 12-9, 12-10, 14-2 | |
| **3.** | Add and subtract fractions with common denominators and use mental math to determine whether the answer is reasonable (**N-2-M**) | | 14-17<br>**SB:** 15-1 to 15-3, 16-1 to 16-4 | 15-1, 16-1 |
| **4.** | Compare positive fractions using number sense, symbols (I.e., <, =, >) , and number lines (**N-2-M**) | | 10, 11<br>**SB:** 13-1 to 13-3, 13-5 | **SB:** 13-1, 14-1 |
| **5.** | Read, explain, and write a numerical representation for positive improper fractions, mixed numbers, and decimals from a pictorial representation and vice versa (**N-3-M**) | | 13, 42-45<br>**SB:** 14-1, 21-1 to 21-3, 23-2, 25-3, 25-4 | **SB:** 29-1 |
| **6.** | Select and discuss the correct operation for a given problem involving positive fractions using appropriate language such as *sum, difference, numerator*, and *denominator* (**N-4-M**) | | 26, 27, 35, 36 | |
| **7.** | Select, sequence, and use appropriate operations to solve multi-step word problems with whole numbers (**N-5-M**) (**N-4-M**) | 22, 55<br>**SB:** 45-2, 45-12, 45-14, 45-16 | | |

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| **8.** | Use the whole number system (e.g., computational fluency, place value, etc.) to solve problems in real-life and other content areas (**N-5-M**) | 29, 30, 49-58, 76<br>**SB:** 9-3, 10-4, 45-1 to 45-17, 50-3 | | |
| **9.** | Use mental math and estimation strategies to predict the results of computations (I.e., whole numbers, addition and subtraction of fractions) and to test the reasonableness of solutions (**N-6-M**) (**N-2-M**) | 27-30, 49, 51, 53, 54<br>**SB:** 45-8, 45-13, 50-3 | **SB:** 49-1, 50-1 | |
| **10.** | Determine when an estimate is sufficient and when an exact answer is needed in real-life problems using whole numbers (**N-6-M**) (**N-5-M**) | 28, 29 | | |
| **11.** | Explain concepts of ratios and equivalent ratios using models and pictures in real-life problems (e.g., understand that 2/3 means 2 divided by 3) (**N-8-M**) (**N-5-M**) | | 9<br>**SB:** 12-8 | 56, 57<br>**SB:** 12-1, 52-1 |
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| | **ALGEBRA** | | | |
| **12.** | Find unknown quantities in number sentences by using mental math, backward reasoning, inverse operations (i.e., unwrapping), and manipulatives (e.g., tiles, balance scales) (**A-2-M**) (**A-3-M**) | 56-58, 68-72<br>**SB:** 45-3, 45-4, 45-6, 45-14 to 45-17, 56-1, 56-2 | | **SB:** 56-2 |
| **13.** | Write a number sentence from a given physical model of an equation (e.g., balance scale) (**A-2-M**) (**A-1-M**) | 68-72<br>**SB:** 56-1, 56-2, 56-5 | **SB:** 56-1 | **SB:** 56-1 |
| **14.** | Find solutions to one-step inequalities and identify positive solutions on a number line (**A-2-M**) (**A-3-M**) | | | |
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| | **MEASUREMENT** | | | |
| **15.** | Model, measure, and use the names of all common units in the U.S. and metric systems (**M-1-M**) | | | 28-37<br>**SB:** 36-1 to 36-7, 40-1 to 40-4, 41-1, 41-2, 42-1, 42-2 |

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| **16.** | Apply the concepts of elapsed time in real-life situations and calculate equivalent times across time zones in real-life problems (**M-1-M**) (**M-6-M**) | | | 28, 39<br>**SB:** 40-2, 40-3 |
| **17.** | Distinguish among the processes of counting, calculating, and measuring and determine which is the most appropriate strategy for a given situation (**M-2-M**) | | | |
| **18.** | Estimate time, temperature, weight/mass, and length in familiar situations and explain the reasonableness of answers (**M-2-M**) | | | 34, 35, 37<br>**SB:** 36-3, 36-4 |
| **19.** | Compare the relative sizes of common units for time, temperature, weight, mass, and length in real-life situations (**M-2-M**) (**M-4-M**) | | | 28-32, 34-37<br>**SB:** 36-1 to 36-7, 40-3, 40-4, 45-5 |
| **20.** | Identify appropriate tools and units with which to measure time, mass, weight, temperature, and length (**M-3-M**) | | | 28-32, 34-37<br>**SB:** 36-1 to 36-7, 40-1, 41-1, 41-2, 42-2 |
| **21.** | Measure angles to the nearest degree (**M-3-M**) | | | 6<br>**SB:** 37-1 to 37-3 |
| **22.** | Compare and estimate measurements between the U.S. and metric systems in terms of common reference points (e.g., l vs. qt., m vs. yd.) (**M-4-M**) | | | 29 |
| **23.** | convert between units of measurement for length, weight, and time, in U.S. and metric, within the same system (**M-5-M**) | | | 33-37<br>**SB:** 36-4, 36-6, 40-1 to 40-3, 41-1, 41-2, 42-1, 42-2, 45-1, 45-2 |
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| | **GEOMETRY** | | | |
| **24.** | Use mathematical terms to classify and describe the properties of 2-dimensional shapes, including circles, triangles, and polygons (**G-2-M**) | | | 7-9, 13,14<br>**SB:** 34-1 to 34-5, 34-10, 35-1, 35-2 |
| **25.** | Identify and use appropriate terminology for transformations (e.g., *translations* as *slide, reflection* as *flip,* and *rotation* as *turn*) (**G-3-M**) | | | 20<br>**SB:** 60-4 |

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| **26.** | Identify shapes that have rotational symmetry (**G-3-M**) | | | 17<br>**SB:** 60-1 |
| **27.** | Identify and plot points on a coordinate grid in the first quadrant (**G-6-M**) | 77, 78<br>**SB:** 43-1,44-4 | **SB:** 43-1 | 15, 16, 74<br>**SB:** 43-1,44-5 |
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| | **DATA ANALYSIS, PROBABILITY, AND DISCRETE MATH** | | | |
| **28.** | Use various types of charts and graphs, including double bar graphs, to organize, display, and interpret data and discuss patterns verbally and in writing (**D-1-M**) (**D-2-M**) (**P-3-M**) (**A-4-M**) | 26, 78<br>**SB:** 45-13, 46-5, 50-3 | 37, 38<br>**SB:** 45-14, 48-1 to 48-3 | 66-73, 76<br>**SB:** 47-1 to 47-6, 48-1 to 48-3 |
| **29.** | compare and contrast different scales and labels for bar and line graphs (**D-1-M**) | | | **SB:** 48-5 |
| **30.** | Organize and display data using spreadsheets, with technology (**D-1-M**) | | | |
| **31.** | Compare and contrast survey data from two groups relative to the same question (**D-2-M**) | 61 | | |
| **32.** | Represent probabilities as common fractions and recognize that probabilities fall between 0 and 1, inclusive (**D-5-M**) | | 73-75<br>**SB:** 57-1 to 57-5, 58-4 | **SB:** 57-1 |
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| | **PATTERNS, RELATIONS, AND FUNCTIONS** | | | |
| **33.** | Fill in missing elements in sequences of designs, number patterns, positioned figures, and quantities of objects (**P-1-M**) | 70-75<br>**SB:** 44-1 to 44-6 | | 21, 22 **SB:** 44-1 to 44-4 |