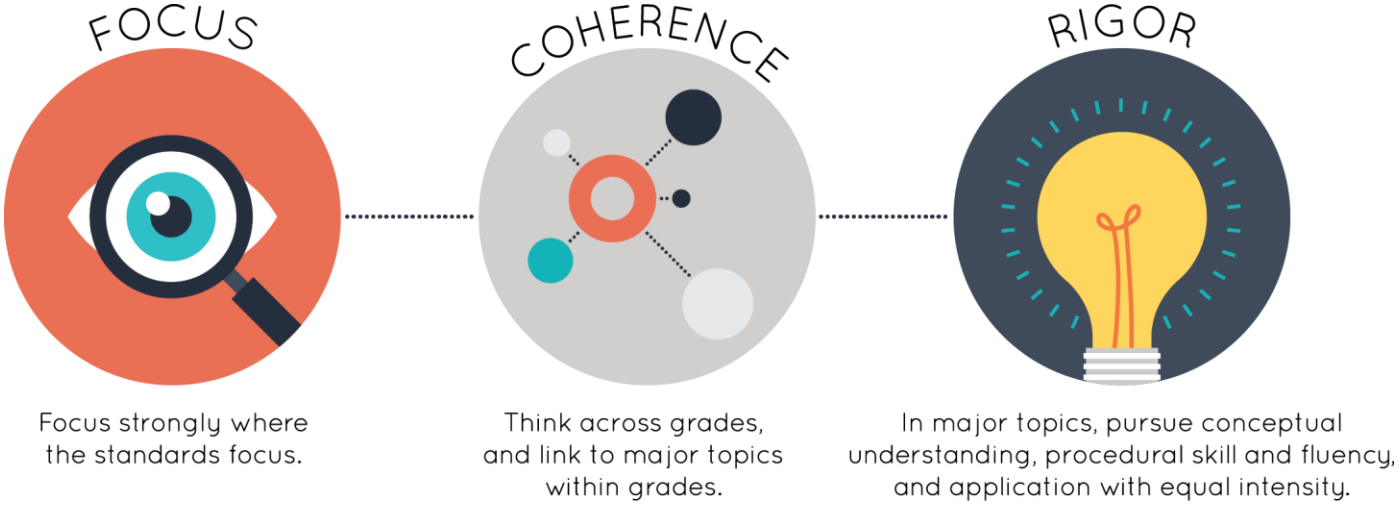
DEPARTMENT of EDUCATION
Louisiana Believes

Assessment Evaluation Tool for Alignment in Mathematics Grades K – HS (AET)

BENCHMARK ASSESSMENTS

Strong mathematics instruction contains the following elements:



Title: **CASE Math Benchmark Assessments**

Grade: **6 and 7**

Publisher: **Certica-TE21**

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Overall Rating: **Tier I, Exemplifies quality**

Tier I, Tier II, Tier III Elements of this review:

STRONG	WEAK
1. Alignment of Test Items (Non-negotiable)	
2. Focus on Major Work (Non-negotiable)	
3. Focus (Non-negotiable)	
4. Rigor and Balance (Non-negotiable)	
5. Practice-Content Connections	
6. Calling for Variety in Item Type and Student Work	
7. Constructing Forms Without Cueing Solution Processes	
8. Quality Materials	

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**[1].

- Review the **required**[2] Indicators of Superior Quality for each **Non-negotiable** criterion.
- If there is a "Yes" for all **required** Indicators of Superior Quality, materials receive a "Yes" for that **Non-negotiable** Criterion.
- If there is a "No" for any of the **required** Indicators of Superior Quality, materials receive a "No" for that **Non-negotiable** Criterion.
- Materials must meet **Non-negotiable** Criterion 1 and 2 for the review to continue to **Non-negotiable** Criteria 3 and 4. Materials must meet all of the **Non-negotiable** Criteria 1-4 in order for the review to continue to Section II.
- If materials receive a "No" for any **Non-negotiable** Criterion, a rating of Tier 3 is assigned, and the review does not continue.

If all Non-negotiable Criteria are met, then continue to **Section II: Additional Criteria of Superior Quality.**

- Review the **required** Indicators of Superior Quality for each criterion.
- If there is a "Yes" for all **required** Indicators of Superior Quality, then the materials receive a "Yes" for the additional criteria.
- If there is a "No" for any **required** Indicator of Superior Quality, then the materials receive a "No" for the additional criteria.

Tier 1 ratings receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality.
Tier 2 ratings receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality.
Tier 3 ratings receive a "No" for at least one of the Non-negotiable Criteria.

[1] The criteria in Section I apply to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the full intent of the indicators.
[2] **Required Indicators of Superior Quality** are labeled "**Required**" and shaded yellow.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: Non-negotiable Criteria: Materials must meet **Non-negotiable** Criterion 1 and 2 for the review to continue to **Non-negotiable** Criteria 3 and 4. Materials must meet all of the **Non-negotiable** Criteria 1-4 in order for the review to continue to Section II. **Submissions must meet all non-negotiable criteria in order for the review to continue.**			
Non-negotiable **1. ALIGNMENT OF TEST ITEMS**: Test items and/or sets of items elicit direct, observable evidence of the degree to which a student can independently demonstrate the targeted Standard(s) ☒ Yes ☐ No	**Required** **1a)** Items exhibit alignment to the full intent of the LSSM for that grade/course.	**Yes**	Items exhibit alignment to the full intent of the Louisiana Student Standards for Mathematics (LSSM) for Grade 6 and Grade 7. For example, LSSM 6.NS.C.6 requires students to understand a rational number as a point on the number line. On Items 25 and 26 on the Number System Benchmark Assessment, students indicate locations on opposite sides of 0 on the number line. On Item 24, students recognize that the opposite of a number is the number itself. On Items 27, 29, and 32, students indicate locations in quadrants of the coordinate plane, and on Items 28 and 30 students understand that the locations of points are related by reflections across axes. On Items 31 and 33, students find integers and other rational numbers on a horizontal number line. Also, on Item 6 of the Full-Length Benchmark, students identify pairs of integers on the coordinate plane. On Item 15, students identify integers on a horizontal number line diagram. Together, these items meet the full intent of LSSM 6.NS.C.6. LSSM 7.NS.A.1 which requires students to apply and extend previous

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			understandings of addition and subtraction. On Items 1, 2, and 3 on the Number System Benchmark Assessment and Item 20 of the Full-Length Benchmark, students describe situations in which opposite quantities combine to make 0. On Items 4, 5, and 6, students locate a distance in a positive or negative direction on a number line describing a real-world context. On Items 7, 8, and 9 of the Number System Benchmark Assessment and Item 6 of the Full-Length Benchmark, students subtract rational numbers as adding the additive inverse. On Items 10, 11, and 12 of the Number System Benchmark Assessment and Item 3 of the Full-Length Benchmark, students add and subtract rational numbers applying properties of operations. Together, these items meet the full intent of LSSM 7.NS.A.1.
	Required **1b)** Items adhere to content limitations outlined in the LSSM and the Assessment Guides. All limitations for all grades K-HS provided in footnotes of the LSSM are also followed.	**Yes**	Items adhere to the content limitations outlined in the LSSM and the Assessment Guides for Grade 6 and Grade 7. For example, LSSM 6.G.A.2 requires that students understand how to find the volume of a rectangular prism with fractional edge lengths by packing it with unit cubes with appropriate fractional edge lengths and show that the volume is the same as would be found by multiplying the edge lengths of the

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			prism. Items 7 and 9 of the Geometry Benchmark Assessment include dimensions of rectangular prisms with fractional edge lengths. Students use this information to solve for the number of unit cubes, with fractional edge lengths, needed to fill the prism. Also, on the assessment items provided, students respond using whole numbers, fractions, decimals, mathematical models, and graphs. In the Number System Benchmark Assessment, students provide a fractional response on Item 2, identify the correct model on Item 3, provide a whole number response on Item 5, provide a decimal response on Item 12, and graph a number and its opposite on Item 25. Assessment items utilize appropriate and accurate mathematical language for the grade level, as shown on Item 18 of the Number System Benchmark Assessment: "Arianna scores 10 points in a basketball game. Noah scores 26 points in a basketball game. Which expression is equivalent to the sum of Arianna's and Noah's points scored?" On Items 45 through 48 of the Number System Benchmark Assessment, students analyze and identify the distance between points that are directly horizontal or vertical to one another, which is appropriate to the grade level requirements. LSSM

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			6.SP.B.5c requires that students summarize data sets by giving a measure of center (median or mode) or a measure of variability, which is limited to an interquartile range. Items 15 and 19 of the Statistics and Probability Benchmark Assessment limit the language within the answer choices to offer an interquartile range as a measure of variability. The content limitations are also evidenced throughout the Grade 7 assessments. For example, assessment items ask students to respond using whole numbers, fractions, decimals, mathematical models, and graphs. On the Full-Length Benchmark Assessment, in addition to multiple problems that require numerical answers, Item 8 requires students to create a numerical equation (7.NS.A.2a), Item 10 requires an algebraic equation (7.RP.A.2c), and Item 29 requires students to identify an inequality graphed on a number line (7.EE.B.4b). Additionally, assessment items utilize appropriate and accurate mathematical language for the grade level. Examples can be found on the Full-Length Benchmark Assessment, where Items 1 and 3 ask students to find the value of a given expression. Given appropriate answer choices, Item 8 asks students, “Which equation demonstrates a correct

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			product of two rational numbers?" Items 10, 11, 12, and 13 of the Proportional Relationships Benchmark Assessment, asks students to find the constant of proportionality (7.RP.A.2b). LSSM 7.RP.A.1 extends students' knowledge of computing unit rates to include computation with complex fractions. On Items 1-6 of the Proportional Relationships Benchmark Assessment, students compute with complex fractions to find the unit rate of each given scenario.
	Required **1c)** Items use the number system appropriate to the grade/course. For example, in grade 3 there are some items involving fractions greater than 1; in the middle grades, arithmetic and algebra use the rational number system, not just the integers.	**Yes**	Assessment items use the number system appropriately as defined by the LSSM for Grade 6 and Grade 7. For Grade 6, items use the number system appropriate to the grade. For example, students are prompted to generate equivalent numerical and algebraic expressions within the limits of the real number system. This is evident in Items 1, 2, and 3 of the Expressions and Equations Benchmark Assessment, which asks students to produce equivalent numerical expressions to given exponential expressions (LSSM 6.EE.A.1). On Item 11, students substitute a given value to convert from Celsius to Fahrenheit using fraction and whole number operations (LSSM 6.EE.A.2c). LSSM 6.NS.B.4 requires that students find the greatest common factor of two numbers that are less than or equal to

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			100, find the least common multiple of two numbers that are less than or equal to 12, and use the distributive property to express the sum of two whole numbers 1-100 as a sum of the products of a common factor and non common factor. Items 16, 17, and 19 of The Number System Benchmark Assessment adheres to the number limitations relating to LSSM 6.NS.B.4 as students find the greatest common factor of two numbers that are less than 100 and find the greatest common factor of two numbers that are less than 12. However, Item 9 of the Full-Length Benchmark Assessment does not stay within the number system limitations of the grade. The problem features a sum of two whole terms, where one is greater than 100. The LSSM 6.NS.B.4 explains that students are limited to terms that are between 1-100. Assessment items use the number system as defined by the LSSM for Grade 7. All items submitted adhere strictly to real number operations where called for in the standards. For example, LSSM 7.RP.A.1 states “Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.” All assessment items aligning to LSSM 7.RP.A.1, including Items 1-6 on the Ratios and

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			Proportional Relationships Benchmark Assessment and Items 2 and 11 on the Full-Length Benchmark Assessment, require students to work fully with fractions, as described in the standard. Items also include work with non-whole percentages such as 3.2% in Item 20, 1.8% in Item 25, and 11.5% in Item 27 of the Ratios and Proportional Relationships Benchmark Assessment. For the items that align with The Number System domain, all operations are present and students work with integers and all other rational numbers as described by LSSM 7.NS.A.1, 7.NS.A.2, and 7.NS.A.3. Questions 18-20 of the Number System Benchmark Assessment include multiplication and division work that includes complex fractions which require that students use properties of operations to solve as described in LSSM 7.NS.A.2c.
Non-negotiable **2. FOCUS ON MAJOR WORK:** The large majority of items in each grade/course are devoted to the major work of the grade. ☒ Yes ☐ No	**Required** **2a)** Each grade/course's item set **meets or exceeds** the following distributions for the major work of the grade. • 85% of the items in grades K–2 align exclusively to the major work of the grade. • 75% of the items in grades 3–5 align exclusively to the major work of the grade. • 65% of the items in grades 6–12 align exclusively to the major work of the grade/course.	**Yes**	Each item set exceeds the required distributions for the major work of the grade for both Grades 6 and 7. For Grade 6, there are 192 items total in the benchmark assessment items, including both the content domain Benchmark Assessments and the Full-Length Benchmark Assessment. Of the 192 items, 69% align exclusively to the major work of Grade 6, 21% align exclusively to the additional work of Grade 6, and 10% align exclusively to

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			the supporting work of Grade 6. On the Full-Length Benchmark Assessment, 72.5% of the items included align to the major LSSM, 7.5% align to the supporting LSSM and 20% align to the additional LSSM for Grade 6. For Grade 7, there are 159 items total in the benchmark assessment items, including both the content domain Benchmark Assessments and the Full-Length Benchmark Assessment. Of the 159 items, 67% of the items align exclusively to the major work of Grade 7, 19% of the items align exclusively to the additional work of Grade 7, 14% of the items align exclusively to the supporting work of Grade 7. On the Full-Length Benchmark Assessment, 75% of the items align to the major LSSM, 10% align to the supporting LSSM, and 15% align with the additional LSSM for Grade 7.
Non-negotiable **3. FOCUS:** No item assesses topics directly or indirectly before they are introduced in the LSSM. ☒ Yes ☐ No	**Required** **3a)** 100% of items address only knowledge of topics found in the LSSM in the specified grade/course.	**Yes**	In both the content domain Benchmark Assessments and the Full-Length Benchmark Assessment, 100% of items address only knowledge of topics found in the LSSM for both Grade 6 and Grade 7. There are no items that assess content above or below grade level, and students are assessed within the limits of the grade-level requirements. Content standards containing multiple subcomponents are addressed fully

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			throughout the questions. For example, LSSM 6.RP.A.3a is addressed through Items 9-12 on the Ratios and Proportional Relationships Benchmark Assessment, Item 40 on the Full-Length Benchmark Assessment, and a technology-enhanced item located at the end of the assessments. LSSM 6.RP.A.3b is addressed through Items 13-17 on the Ratios and Proportional Relationships Benchmark Assessment and on Items 33 and 39 on the Full-Length Benchmark Assessment. LSSM 6.RP.A.3c is addressed through Items 18-22 on the Ratios and Proportional Relationships Benchmark Assessment and Item 36 on the Full-Length Benchmark Assessment. LSSM 6.RP.A.3d is addressed through Items 23-25 on the Ratios and Proportional Relationships Benchmark Assessment. LSSM 6.NS.C.8 requires students to determine the distance between points that may be plotted in all four quadrants of the coordinate plane which is fully addressed on Items 1 and 4 of the Full-Benchmark Assessment as students identify the distance between two points. LSSM 6.NS.C.7 requires students to understand the ordering and absolute value of rational numbers. Questions 34-43 of the Number System Benchmark Assessment align to these standards and provide students the

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			opportunity to demonstrate how to order rational numbers and interpret what the magnitude of the value of the number means in a real-life context. These items do not go beyond the conceptual understanding level of rigor of LSSM 6.NS.C.7. Content standards for Grade 7 containing multiple subcomponents are addressed fully throughout the questions provided. For example, LSSM 7.NS.A.2a is addressed through Items 13-15 on the Number System Benchmark Assessment and Item 8 of the Full-Length Benchmark Assessment. LSSM 7.NS.A.2b is addressed through Items 16, 17, and 21 on the Number System Benchmark Assessment and Item 4 of the Full-Length Benchmark Assessment. LSSM 7.NS.A.2c is addressed through Items 18-20 on the Number System Benchmark Assessment and Item 13 on the Full-Length Benchmark Assessment. LSSM 7.NS.A.2d is addressed through Items 22-25 on the Number System Benchmark Assessment and Item 15 on the Full-Length Benchmark Assessment. The footnote found in the LSSM 7.RP.A.1 explains that students are expected to compute complex fractions to find the unit rate of two units. Questions 1-6 of the Ratios and Proportional Relationships Benchmark Assessment

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			aligns with the specific instruction included in LSSM 7.RP.A.1. Additionally, the expectation of LSSM 7.EE.B.4a is for students to solve two-step equations with fluency. Questions 14-17 of the Expressions and Equations Benchmark Assessment provides students with the opportunity to demonstrate fluency of LSSM 7.EE.B.4a.
Non-negotiable **4. RIGOR AND BALANCE:** Each grade/course's assessments reflect the balances in the Standards and help students meet the Standards' rigorous expectations by helping students develop conceptual understanding, procedural skill and fluency, and application. ☒ Yes ☐ No	**Required** **4a)** ***For Conceptual Understanding:*** ***K–12*****:** At least 20% of the items for each grade or course explicitly require students to demonstrate conceptual understanding especially where called for in specific content standards.	**Yes**	There is an appropriate balance of items for Grade 6 and Grade 7 that require students to demonstrate conceptual understanding when called for in specific content standards. For LSSM 6.NS.C.7, students are required to show their understanding of ordering rational numbers including absolute values. On Item 20 of the Full Benchmark Assessment, students determine the true statement about the order of integers on a standard number line and identify the inequality that represents the relationship (LSSM 6.NS.C.7a). Questions 34-48 of the Number System Benchmark Assessment represent high-quality questions that involve number lines and require students to demonstrate the expected understanding of absolute values and their reasoning why. LSSM 6.EE.A.2a requires students to write expressions that describe operations with numbers and letters. Items 4 and

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			5 of the Expressions and Equations Benchmark Assessment allows students to demonstrate their understanding of writing expressions. Item 4 on the Full-Length Benchmark Assessment asks students to determine which statement is true and requires them to understand and explain how to determine the distance between two coordinates on a coordinate plane with the same y-value using an equation as proof (LSSM 6.NS.C.8). Item 12 on the Full-Length Benchmark Assessment asks students to determine whether two expressions are equivalent and choose the correct reason why (LSSM 6.EE.B.7). Item 14 on the Full-Length Benchmark Assessment requires students to interpret the meaning of a given statement and algebraic expression related to money in a money jar (LSSM 6.EE.B.7). Item 19 on the Full-Length Benchmark Assessment requires that students determine which statement describes a unit cost and choose the correct corresponding ratio (LSSM 6.RP.A.2). For Grade 7, Item 8 of the Full-Length Benchmark Assessment asks “Which equation demonstrates a correct product of two rational numbers?” (LSSM 7.NS.A.2a). Given a graph of earnings, Item 12 on the Full-Length Benchmark Assessment asks “Which

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			statement about the coordinate pairs (0, 0) and (1, 4) is most accurate?" (LSSM 7.RP.A.2d). Given four tables, Item 18 on the Full-Length Benchmark Assessment asks "Which table represents a proportional relationship?" (LSSM 7.RP.A.2a). Questions 5, 10, and 14 of the Full Benchmark Assessment require that students demonstrate their understanding of proportional relationships that can be observed in tables, graphs, and equations. Item 24 on the Full-Length Benchmark Assessment asks "A square pyramid is cut by a plane perpendicular to the base and through the top vertex of the pyramid. What shape is formed?" (LSSM 7.G.A.3). LSSM 7.SP.C.5 requires that students understand that probability is the likelihood that random events can be expressed as a number between 0 and 1 with numbers closer to 1 representing the more likely the event will occur. Questions 13, 14, and 15 of the Statistics and Probability Benchmark Assessment ask that students answer questions regarding the likelihood of events occurring given specific situations. These three questions measure whether students understand if a situation is likely to occur.

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	Required **4b)** ***For Procedural Skill and Fluency:*** ***K–12*****:** At least 20% of the items for each grade or course explicitly require students to demonstrate procedural skill and fluency, especially where called for in specific content standards.	**Yes**	There is an appropriate balance of items for Grade 6 and Grade 7 that require students to demonstrate procedural skill and fluency, especially when called for in specific content standards. For example, Items 3 and 29 of the Full-Length Benchmark Assessment require student fluency of operations with positive rational numbers when substituting values for given variables in an algebraic expression (LSSM 6.EE.A.2c). Additionally, LSSM 6.NS.B.3 requires that students compute with multi-digit decimals fluently. Items 7 and 8 of the Full-Benchmark Assessment and Items 12-15 of the Number System Benchmark Assessment require students to add, subtract, multiply, and divide with multi-digit decimals. On Item 9-11 of the Number System Benchmark Assessment, students find the quotient of multi-digit whole numbers (LSSM 6.NS.B.2). Item 1 of the Full-Length Benchmark Assessment requires students to apply properties of operations to divide, multiply, and subtract integers (LSSM 7.NS.A.3). Item 13 of the Full-Length Benchmark Assessment requires students to apply properties of operations to multiply and divide rational numbers to determine which numerical expression has the greatest value (LSSM 7.NS.A.2c). Item 19 of the

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			Full-Length Benchmark Assessment requires students to apply properties of operations to add and subtract rational numbers (LSSM 7.NS.A.1d). Items 2 and 11 of the Full Benchmark Assessment require that students compute unit rates given ratios of complex fractions, as described in LSSM 7.RP.A.1. Items 13-15 of the Geometry Content Benchmark Assessment and Item 32 of the Full-Length Benchmark Assessment requires students to write and solve an equation to solve for a missing value given expressions for adjacent supplementary angles (LSSM 7.G.B.5).
	Required **4c) *For Applications*** • ***K–5:*** At least 20% of the items for each grade explicitly assess solving single- or multi-step word problems. • ***6–8:*** At least 25% of the items for each grade explicitly assess solving single- and multi-step word problems and simple models. • ***9-12:*** At least 30% of the items for each high school course explicitly assess single- and multi-step word problems, simple models, and substantial modeling/application problems.	**Yes**	There is an appropriate balance of items present that require students to solve single and multi-step word problems and simple models where called for in the LSSM for Grade 6 and Grade 7. For example, on the Ratios and Proportional Relationships Benchmark Assessment, Items 13-17 align with LSSM 6.RP.A.3b which includes the application component of rigor. On Item 16, students solve a multi-step word problem in which they find the price per foot of fencing for two different people. Items 45-48 on the Number System Benchmark Assessment align to LSSM 6.NS.C.8, another application standard. On Item 48, students solve a real-world problem by first plotting two points on

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			a coordinate grid and then finding the distance between the two points to find the distance between two locations. Additionally, two multi-part Constructed Response items are included in the assessment that aligns with LEAP2025 Evidence Statements, LEAP.III.6.1 and LEAP.II.6.4. Both items include multi-step word problems that call for the application of conceptual understanding and procedural skill and fluency. The Grade 7 assessments also include an appropriate balance of single and multi-step word problems. For example, Items 22 and 39 on the Full-Length Benchmark Assessment align to LSSM 7.RP.A.3 which includes the application component of rigor. Item 22 requires two steps to determine the final bill after tax and a tip is added. Item 39 is a single-step problem in which students find the percent decrease in weekly pay. Item 9 of the Full-Length Benchmark Assessment requires students to apply properties of operations to multiply and add rational numbers in a real-world context (LSSM 7.NS.A.3). LSSM 7.EE.B.3 explicitly calls for students to solve real-life, multi-step problems involving all rational numbers. Items 27 and 34 of the Full Benchmark Assessment align with LSSM 7.EE.B.3 and require students to use many steps to solve. Additionally, LSSM

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			7.EE.B.4 explicitly requires that students solve word problems that arrive from two-step inequalities. Items 7, 16, 23, 29, and 38 of the Full Benchmark Assessment align with LSSM 7.EE.B.4 and require that students solve real-life multi-step problems. Additionally, the Constructed Response items provided include multi-step items aligned directly to the LEAP 2025 Evidence Statements (LEAP.II.7.5 and LEAPIII.7.2) as described in the Assessment Guide for Grade 7 Mathematics.
SECTION II: Additional Criteria of Superior Quality			
5. PRACTICE-CONTENT CONNECTIONS ☒ Yes ☐ No	**Required** **5a)** Each grade/course's assessments include items that meaningfully connect the Standards for Mathematical Content and Standards for Mathematical Practice. However, not all items need to align to a Standard for Mathematical Practice, and there is no requirement to have an equal balance among the Standards for Mathematical Practice in any set of items or test forms.	**Yes**	Grade 6 and 7 assessments include items that meaningfully connect the Standards for Mathematical Content and Standards for Mathematical Practice. For example, students attend to precision (MP.6) on Item 3 of the Ratios and Proportional Relationships Benchmark Assessment as they select a statement to describe a ratio presented in a real-world problem (LSSM 6.RP.A.1). Students look for and make use of structure (MP.7) on Item 13 of the Expressions and Equations Benchmark Assessment as they apply the distributive property to find equivalent expressions (LSSM 6.EE.A.3). Item 2 of the Constructed Response items meaningfully connects

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			MP.5 and MP.6 to LSSM 6.NS.6 and LSSM 6.NS.7. Part A of Question 2 states, “Which point represents the opposite of -2? Explain your reasoning in 1-2 sentences.” This question requires students to precisely identify the correct point on a number line and explain why the number is the opposite. Students use MP.5, use appropriate tools strategically, to help identify the number and MP.6 to precisely explain how to find the opposite value of numbers on a number line. For Grade 7, Item 26 of the Numbers System Benchmark Assessment states, “simplify the expression -27 ÷ 9 + 8/−2.” Students apply their understanding of LSSM 7.EE.A.1 to solve the expression. Since students must understand the rules to operate with rational numbers to solve the items, students use MP.7 to look for and make use of structure, to solve the item. On Item 2 of the Expressions and Equations Benchmark Assessment, students model with mathematics (MP.4) as they form an expression from real-world context (LSSM7.EE.A.1). Students also have the opportunity to construct arguments and reason abstractly (MP.2, MP.3). Part A of Question 1 of the Constructed Response asks students the following question: “The youngest daughter in the family, Julia, says she

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			can find the price per child passenger by setting up an equation where x represents the price per child passenger, as shown. 3x + 223.45 = 803.15 Is Julia's equation correct?" This question requires students to use reasoning to determine if each term of the item correctly describes the scenario given in the item and to develop an argument and a corrected equation if it is not correct.
6. CALLING FOR VARIETY IN ITEM TYPE AND STUDENT WORK ☒ Yes ☐ No	**Required** **6a)** Assessments include a variety of item types (e.g., multiple choice, multiple select, numeric response, constructed response) that require a variety in what students produce. For example, items require students to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations (including items that explicitly assess expressing and/or communicating mathematical reasoning), diagrams, mathematical models, etc.	**Yes**	Assessments include a variety of item types that require a variety of what students produce. Although the majority of the assessment items provided are multiple-choice or multiple select, numerical response items, constructed-response items, and sample technology-enhanced items are also present on the assessments. For example, Item 43 of the Number System Benchmark Assessment for Grade 6 is multiple choice and Item 44 requires multiple responses as directed by the prompt, "Select ALL that apply." Item 45 of the same assessment requires students to input a numerical response in a bubble sheet. The Constructed Response Assessment gives students opportunities to produce a written response or an equation to fully obtain all the possible points of the items. For example, Part A, Question 1 of the Constructed Response presents the

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			following problem: "A student claims the price for 1 raffle ticket is $0.50 because 4 tickets divided by $8 is 0.50. Is the student correct or incorrect, and why? Explain your reasoning in 2-3 sentences." Part C of Question 1 of the Constructed Responses then asks students to "Write an equation to model the relationship between the price, p, and the number of raffle tickets sold, n." Students respond in writing and provide an equation to meet the full expectation of the item. Grade 7 also includes a variety of item types that require variety in what students produce. The Grade 7 technology-enhanced items include opportunities to complete a choice matrix, drag and drop, tables, text response, drop down, and graphing on a coordinate plane. For example, in the Tech-Enhanced Benchmark, students use a drop-down box to answer a question that asks, "A student was 48 inches in 5th grade. Now, the student measures 60 inches in the 8th grade. The student had a __ % increase in height?" In other technology-enhanced items, students rearrange items in order from "likely to most-likely" and use "drag-and-drop" responses to complete the correct equivalent expression. Additionally, the Full-Length Benchmark Assessment allows

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			students to choose the correct response in a multiple-choice format. Item 4 on the Benchmark Assessment is multiple select and Item 5 is multiple-choice. Item 1 of the Geometry Benchmark Assessment requires students to provide a numerical response in a bubble sheet. The constructed response items submitted require students to explain and show work.
7. CONSTRUCTING FORMS WITHOUT CUEING SOLUTION PROCESSES ☒ Yes ☐ No	**Required** **7a)** Item sequences do not cue the student to use a certain solution process during problem solving and assessments include problems requiring different types of solution processes within the same section.	**Yes**	Item sequences do not cue the student to use a certain solution process during problem-solving and the assessments include problems requiring different types of solution processes within the same section. For example, in Grade 6, Items 3-6 of the Number System Benchmark Assessment require students to understand and compute quotients of fractions (LSSM 6.NS.A.1). Item 3 asks students to determine the appropriate model that represents the given problem, Item 4 asks students to explain the solution process and solution, Item 5 asks students to compute and interpret the quotient, and Item 6 asks students to find the width of a walkway without prompting the student to know that division is required. There are additional problems that require similar responses without providing any information leading to the solution

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			process. For example, Items 1 and 4 of the Full-Length Benchmark Assessment align with LSSM 6.NS.C.8, as students find distance using ordered pairs. Item 1 requires students to use a coordinate grid to determine the distance between two points, while Question 4 provides students with a scenario and requires that they answer the item by choosing the response that includes the correct process for determining the distance between the two ordered pairs. Although these items require that students complete the same process to solve, the presentation of the items does not make the process obvious. In Grade 7, Items 1-6 of the Ratios and Proportional Relationships Benchmark Assignment asks students to compute and understand the unit rate of fractional rates (LSSM 7.RP.A.1). Given specific scenarios Item 1 asks "How many bushels of apples does Selena pick in one hour at this rate?" Item 2 asks, "What is Michael's walking speed, in miles per hour?" Item 3 asks, "How many biscuits are made from each cup of flour?" Item 4 asks, "Which statements are true about the unit rate? Select ALL that apply," Item 5 asks, "At this rate, how many pounds of fertilizer does the gardener need to cover a 1 square meter garden plot?," and Item 6 asks, "If he continues

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			working at this rate, how much of Alex's garden can he plant in 1 hour?" None of these items suggest a solution process and students are assessed on the standards in multiple ways. The Geometry Domain Benchmark Assessment includes items that align with the same standard; however, the items do not cue the student to use a particular solution process. For example, Questions 10-12 of the Geometry Benchmark Assessment ask students to find the circumference of circles and use this information to solve for the area of shapes surrounding the circle. These questions appear in sequential order but none cue students on how to solve the next.
8. QUALITY MATERIALS ☒ Yes ☐ No	**Required** **8a)** The assessment items, answer keys, and documentation are free from mathematical errors.	**Yes**	The documentation, assessment items, and answer keys are free from mathematical errors. The answer keys include an alignment for each item, as well as the correct answer. Rubrics are provided at the end of the assessment for the Constructed-Response items. The rubrics include answers and example responses that are free from mathematical error.
FINAL EVALUATION ***Tier 1 ratings*** receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality. ***Tier 2 ratings*** receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality. ***Tier 3 ratings*** receive a "No" for at least one of the Non-negotiable Criteria			
Compile the results for Sections I and II to make a final decision for the material under review.			

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section	**Criteria**	**Yes/No**	**Final Justification/Comments**
I: Non-negotiable Criteria of Superior Quality[3]	1. Alignment of Test Items	**Yes**	Test items exhibit direct, observable evidence to which a student can demonstrate the targeted LSSM for Grade 6 and Grade 7. Test items exhibit full alignment to the LSSM Grade 6 and Grade 7, adhere to the limitations within the LSSM and use the number system appropriate to the grade level.
	2. Focus on Major Work	**Yes**	The large majority of items in the assessments are dedicated to the Major Work of Grade 6 and Grade 7.
	3. Focus	**Yes**	There are no items that directly or indirectly assess items before they are introduced in LSSM Grade 6 or Grade 7.
	4. Rigor and Balance	**Yes**	Grade 6 and Grade 7 assessment items reflect a balance in the distribution of rigor to assess students' conceptual understanding of topics, procedural fluency, and skills as stated in the LSSM and application of standards.
II: Additional Criteria of Superior Quality[4]	5. Practice-Content Connections	**Yes**	Grade 6 and Grade 7 assessment items meaningfully connect to the grade-level content standards to the math practice standards.
	6. Calling for Variety in Item Type and Student Work	**Yes**	Assessments include a variety of item types that require a variety of what students produce for Grade 6 and Grade 7. The majority of the

[3] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier I or Tier II rating.
[4] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier I rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			assessment items are multiple-choice or multiple select; however, it is evident that items allow for multiple types of responses throughout the assessment items through the constructed response and technology-enhanced items.
	7. Constructing Forms Without Cueing Solution Processes	**Yes**	Grade 6 and Grade 7 assessment items do not cue students to use a certain solution process during problem-solving and are not structured in a way that would make it easier to progress through similar items in the materials.
	8. Quality Materials	**Yes**	Grade 6 and Grade 7 assessment items, answer keys, and documentation are free of mathematical errors.
FINAL DECISION FOR THIS MATERIAL: **Tier I, Exemplifies quality**			

Instructional materials are one of the most important tools educators use in the classroom to enhance student learning. It is critical that they fully align to state standards—what students are expected to learn and be able to do at the end of each grade level or course—and are high quality if they are to provide meaningful instructional support.

The Louisiana Department of Education is committed to ensuring that every student has access to high-quality instructional materials. In Louisiana all districts are able to purchase instructional materials that are best for their local communities since those closest to students are best positioned to decide which instructional materials are appropriate for their district and classrooms. To support local school districts in making their own local, high-quality decisions, the Louisiana Department of Education leads online reviews of instructional materials.

Instructional materials are reviewed by a committee of Louisiana educators. Teacher Leader Advisors (TLAs) are a group of exceptional educators from across Louisiana who play an influential role in raising expectations for students and supporting the success of teachers. Teacher Leader Advisors use their robust knowledge of teaching and learning to review instructional materials.

The 2019-2020 Teacher Leader Advisors are selected from across the state and represent the following parishes and school systems: Ascension, Beauregard, Bossier, Caddo, Calcasieu, Caldwell, City of Monroe, Desoto, East Baton Rouge, Einstein Charter Schools, Iberia, Jefferson, Jefferson Davis, KIPP New Orleans, Lafayette, Lafourche, Lincoln, Livingston, LSU Lab School, Orleans, Orleans/Lusher Charter School, Ouachita, Plaquemines, Pointe Coupee, Rapides, Richland, RSD Choice Foundation, St. John the Baptist, St. Charles, St. James, St. Landry, St. Mary, St. Tammany, Tangipahoa, Vermillion, Vernon, West Baton Rouge, West Feliciana, and Zachary. This review represents the work of current classroom teachers with experience in grades 3-12.