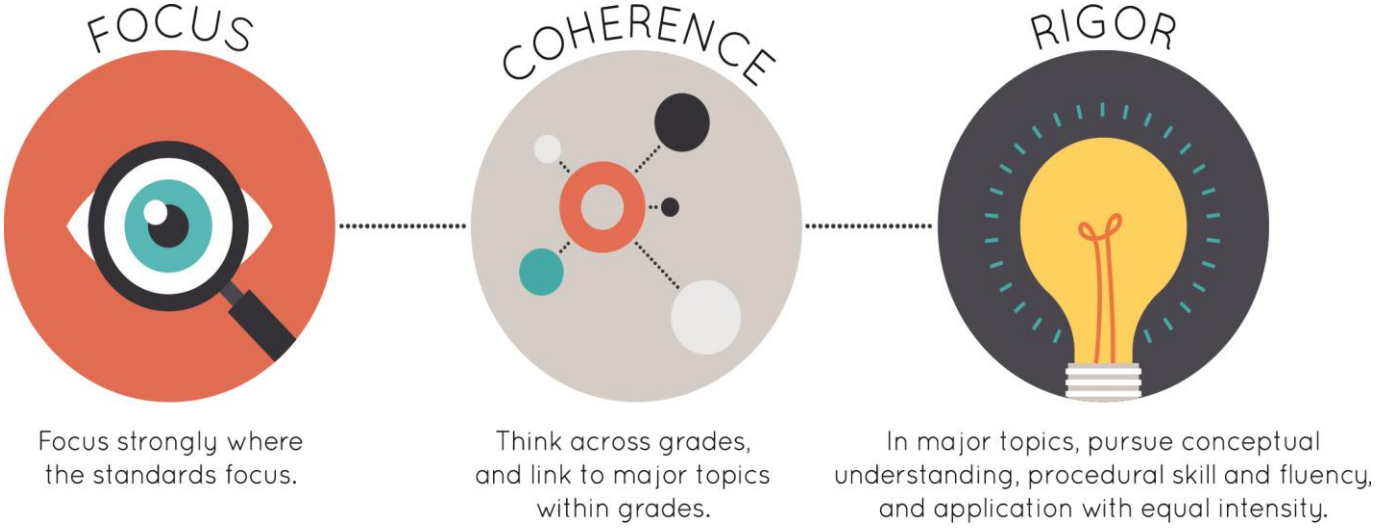
Instructional Materials Evaluation Tool for Alignment in Mathematics Grades K – 12 (IMET)

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Eureka Math Squared**

Grade/Course: **Algebra I**

Publisher: **Great Minds PBC**

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

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

STRONG	WEAK
1. Focus on Major Work (Non-negotiable)	
2. Consistent, Coherent Content (Non-negotiable)	
3. Rigor and Balance (Non-negotiable)	
4. Focus and Coherence via Practice Standards (Non-negotiable)	
5. Alignment Criteria for Standards for Mathematical Content	
6. Quality of Assessments	
7. Indicators of Quality	

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

- Review the **required**[1] 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] **Required Indicators of Superior Quality** are labeled "**Required**" and shaded yellow. Remaining indicators that are shaded white are included to provide additional information to aid in material selection and do not affect tiered rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[2]:** Students and teachers using the materials as designed devote the large majority[3] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the course. Of the 128 lessons, 66% of the instructional time is spent on major work of the grade. Specifically, 38% of lessons are spent on major standards, 28% of lessons are spent on a combination of major standards and supporting/additional standards, and 32% of lessons are spent on supporting or additional standards. For example, in Module 1, Lesson 4, students identify, add, and subtract polynomial expressions (LSSM A-APR.A.1). In Module 3, Lesson 6, students find the input or output given a function, graph a function, and explain the relationship between the input and output values of a function (LSSM F-IF.A.1). In this same lesson, students use function notation, evaluate functions for inputs in their domain, and interpret statements that use function notation (LSSM F-IF.A.2). Another example is evidenced in Module 4, Lesson 21, as students interpret key features of graphs and tables of quadratic functions (LSSM F-IF.B.4) and complete the square for quadratics to find minimum/maximum values (LSSM SSE-B.3b).

[2] For more on the major work of the grade, see Focus by Grade Level.
[3] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

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	Required **1b)** Instructional materials, including assessments, spend minimal time on content outside of the appropriate grade/course **during core math instruction**. Content beyond grade/course-level should be clearly labeled as optional.	**Yes**	Materials spend minimal time on content outside of the appropriate course level. In assessment materials, assessment components do not make students/teachers responsible for any topics before the course in which they are introduced. Lessons and assessments are aligned to course-level content. Assessments include Topic Quizzes and Module Assessments. While some lessons, lesson components, assessments, and assessment items address standards outside the scope of the Louisiana Student Standards for Mathematics (LSSM) for Algebra I, a Louisiana implementation guide is provided that clearly identifies lessons that go beyond the scope of Algebra I as optional and provides teacher modifications for lesson and assessment items that include components that go beyond the scope of Algebra I for Louisiana implementation. For example, nine lessons (Module 1, Lesson 10, Module 3, Lessons 5, 16-17, Module 4, Lesson 20, and Module 5 Lessons 7, 9-10) are labeled as optional according to the publisher's Modifications for Algebra I Alignment to LSS. Furthermore, the guide provides lesson modifications that suggest certain components are omitted or includes altered instructional guidance to keep the content and student expectations within course-level standards. For example, the guide suggests item 18 of the Module 3,

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			Lesson 22 Practice set be omitted. This item requires students to graph a step function (LSSM A2: F-IF.C.7b). An example of suggested modification of instructions includes Module 5, Lessons 2, 3, and 4, in which students write arithmetic and geometric sequences recursively (LSSM A2: F-BF.A.2). Because this skill is outside of the course-level standard, the implementation guidance provided by the publisher suggests modifying the instructions so that students only have to provide a description of the symbolic expressions (LSSM F-BF.A.1a), rather than write the recursive formula (LSSM A2: F-BF.A.2).
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials address major content prior to introducing supporting standards that are coherent with the major work throughout the course. For example, in Module 3, Lesson 11, students interpret key features of functions from graphs and tables (major LSSM F-IF.B.4) and use those features to compare properties of functions via multiple representations (supporting LSSM F-IF.C.9). Another example includes Module 2, Lesson 16 where students determine lines of best fit from a scatter plot (supporting LSSM S-ID.B.6a) and interpret the slope and intercepts of the line (major LSSM S-ID.C.7). In Module 5,

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			Lesson 24 students calculate and interpret average rates of change of exponential functions (major LSSM F-IF.B.6), construct exponential functions given a graph, description of relationship, or input-output pairs given in a table (supporting LSSM F-LE.A.2), and interpret their parameters in terms of the context (supporting LSSM F-LE.B.5).
	Required **2b)** Materials include problems and activities that serve to connect two or more **clusters in a domain**, or two or more **domains in a grade/course**, in cases where these connections are natural and important.	**Yes**	Materials include problems and activities that connect two or more clusters in a domain and/or two or more domains in the grade level where these connections are natural and important. For example, in Module 1, Lesson 11, students translate word problems into equations (LSSM A-CED.A.3). Students then solve the equations (LSSM A-REI.B.3). Students also construct an argument of how to solve the equation (LSSM A-REI.A.1), connecting the Creating Equations (A-CED) and Reasoning with Equations and Inequalities (A-REI) domains, as well as clusters A and B of the A-REI domain. In Module 2, Lesson 2, students are given the standard form of an equation of a line, find the x- and y-intercepts of the line, and then graph the line using the intercepts. After graphing, students change the equation into slope-intercept form (LSSM A-CED.A.2). Students also use the y-intercept and slope which shows that the graph of an equation in two variables is the set of all its solutions plotted (LSSM A-REI.D.10), connecting the

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			Creating Equations (A-CED) and Reasoning with Equations and Inequalities (A-REI) domains. In Module 3, Lesson 3, students find inputs and outputs of functions, graph functions, and explain relationships of input and output values of a function (LSSM F-IF.A.1) and relate the domains of functions to their graphs (LSSM F-IF.B.5), connecting clusters A and B of the Interpreting Function (F-IF) domain. Module 4, Lesson 23 connects the Algebra (A-CED) and Functions (F-IF) domains. Students create equations with two variables to represent relationships between quantities (LSSM A-CED.A.2) and interpret key features of graphs and tables in terms of the quantities (LSSM F-IF.B.4).
Non-negotiable **3. RIGOR AND BALANCE:** Each grade's instructional materials 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** **3a)** ***Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical concepts,** especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. High quality conceptual problems and discussion questions are featured in various lessons throughout the course. Students have several opportunities to demonstrate conceptual understanding based on the expectation of the content standards. For example, Module 4, Lesson 25, promotes conceptual understanding as students interpret key features of graphs and tables in terms of quantities of quadratic functions that model relationships (LSSM F-IF.B.4). Students are challenged with maximizing the area of a rectangular

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			enclosure with a fixed amount of building material. A suggested discussion question in the teacher materials for this lesson asks, "Why might it be useful to know that the situation can be modeled with a quadratic function?" To answer this question, students must have a conceptual understanding of quadratic functions and be able to interpret maximums and how they are relevant to the context of the model. Another example of demonstrating conceptual understanding is evidenced in Module 3, Lesson 1, Practice #1-7, in which students explain how they know that a given correspondence represents a function (LSSM F-IF.A.1). In Module 1, Lesson 2, students rewrite algebraic expressions and show the equivalency of the two algebraic expressions by using properties and operations (LSSM A-SSE.A.2). During the lesson, students complete a Properties of Arithmetic Tree Map. Students describe the properties by using variables connecting to previous knowledge of the properties. Students are introduced to the definitions of algebraic expressions and equivalent expressions and then create both examples and non-examples, referencing the Properties of Arithmetic Tree Map, as needed. Students discuss how to establish whether two expressions are equivalent. Students then progress to representing the equivalence of algebraic expressions using a two-

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			column table or flowchart, describing the property used for each step. Later in Module 1, Lesson 9, this concept is extended as students use the properties to solve equations (LSSM A-REI.A.1). During the lesson, students use the properties to justify each step of solving equations. Students have multiple opportunities to demonstrate conceptual understanding throughout the materials. For example, in Module 3, Lesson 1, Practice items 1 through 7, students explain how they know that a given correspondence represents a function (LSSM F-IF.A.1). In Module 1, Lesson 9, Exit Ticket item 2, students examine two equations, explain why they have the same solution set without solving them, and include properties of equality referenced in their answer to demonstrate conceptual understanding (LSSM A-REI.A.1).
	Required **3b)** ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students **attain the fluencies and procedural skills** required by the content standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Lessons are scaffolded throughout the course to support procedural skill and fluency with sufficient practice while adhering to the expectations of the standards. Student Practice at the end of each lesson concludes with a Remember section that spirals prior content for students to continually practice throughout the course. Each lesson begins with a Fluency section that can be completed through a

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			Whiteboard Exchange activity that builds fluency through repeated practice and immediate feedback. The materials also include Sprints, which are activities that develop fluency which can be given at any time after the content of the Sprint has been developed and practiced. For example, in Module 4, Lesson 5, students apply the zero product property to quadratic equations that contain factored expressions (LSSM A-REI.B.4b). Procedural skill is mastered through practice problems in the Lesson, Recap, Exit Ticket, and Practice student materials. Module 5, Lesson 12, provides ample opportunity for students to demonstrate the procedural skill of using transformations to graph exponential functions (LSSM A-SSE.B.3c). Furthermore, in item 16 of the lesson's Remember section, students solve a quadratic equation with a leading coefficient greater than 1. This promotes fluency as the skill was initially introduced in Module 4, Lesson 6. In Module 2, Lesson 12, students learn about the solution sets of linear inequalities. First, students are given graphs of linear inequalities in the coordinate plane. Students write an inequality that represents each graph (LSSM A1: A-REI.D.12). Students then play a game where they manipulate the points of graphs of the inequality by adjusting points of the boundary line. As the

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			students change the inequality, they discover that the solution set changes drastically. Students use the game to help them define a region based on a set of constraints. After the game, students create a system of linear equations given a word problem. Students are expected to create the linear inequalities and then graph the linear inequalities. There are several problems for students to practice building toward the expectation of procedural skill and fluency.
	Required **3c) *Attention to Applications:*** Materials are designed so that teachers and students spend sufficient time working with **engaging applications**, including ample practice with single-step and multi-step contextual problems, including non-routine problems, that develop the mathematics of the grade/course, afford opportunities for practice, and engage students in problem solving. The problems attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit.	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. Ample practice with contextual problems, including non-routine, is given and develops the mathematics of the course and engages students in problem solving. For example, in Module 6, Lesson 3, students create and justify mathematical models for bivariate data sets. Students are provided with information about the US Census Bureau and how the collected data is used to estimate the population of cities in the United States each year. Students are given data for an assigned city and then are instructed to "Construct a scatter plot and equations for linear, quadratic, and exponential models. Determine which model best fits the data set. Use your model to predict the population in 2020. Validate your model with the 2020 population based on the census data. Prepare an argument in

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			favor of the model of your city's population over time to present to your classmates." Students begin by considering the context of a modeling problem, such as the U.S. Census survey of a city, and analyze the data set by constructing a plot and determining which model (linear, quadratic, or exponential) best fits the data set (LSSM S-ID.B.6a). In Module 1, Lesson 14, students represent constraints using inequalities and interpret their solutions (viable or nonviable) in a modeling context, such as height requirements of roller coasters and lengths of speeches in an English class (LSSM A-CED.A.3). At the end of the lesson, students apply the concept as they solve real world, contextual problems such as, "The internal temperature of a cooked steak must be at least 145°F when warm or below 40°F when refrigerated. At any other temperature, bacteria can grow and make the steak unsafe to eat. Write a compound inequality for the internal temperature of a cooked steak that is safe to eat." Application is also evident in Module 2, Lesson 17 where students represent data, such as weight of vehicle vs fuel efficiency and height vs weight of giraffes, using scatter plots and describe the relationships between the variables in context (LSSM S-ID.B.6). For example, students are provided a table that shows the curb weights of cars in hundreds of

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			pounds and fuel efficiencies in miles per gallon of five compact cars. Students then solve problems such as: "Use technology to make a scatter plot of the data set. Describe the association between the variables. Write the equation of the line of best fit for this data set, where x represents the curb weight in hundreds of pounds and y represents the predicted fuel efficiency in miles per gallon. Interpret the slope of the line of best fit in this context. Does a y-intercept have meaning in this context? Explain why or why not."
	Required **3d) *Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. The materials reflect the balance of rigor as intended by the standards. In Module 1, Lesson 12, students use procedural skill and fluency to rearrange formulas to highlight a quantity (LSSM A-CED.A.4). For example, item 4 states, "To find the volume of a cylinder with radius *r* and height *h*, we use the formula V=π2h. Solve the formula for h." Item 6 states, "Given an equation of a line ax+by=c, solve for *y*, where b0. In Module 3, Lesson 10, students procedurally approximate solutions to equations in the form of f(x)=g(x) graphically using technology and conceptually explain why the x-coordinates of the where the graphs of y=f(x) and y=g(x) intersect are solutions to

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			f(x)=g(x) (LSSM A-REI.D.11). In Module 4, Lesson 27, students model a verbal description with a quadratic function (LSSM A-CED.A.2 and LSSM S-ID.B.6a). Students write a quadratic function that models the amount of visible surface area a camera on a search and rescue helicopter shows at various altitudes (conceptual understanding and procedural skill & fluency), then use the function to solve problems in context of the data (application). Another example includes Module 5, Lesson 11 in which students graph exponential equations (LSSM F-IF.C.7b) through procedural skill and fluency and also use properties of exponents to transform and interpret exponential expressions (LSSM A-SSE.A.2 and A-SSE.B.3) demonstrating conceptual understanding. During the lesson, students learn how to graph exponential equations. The first example compares the key features of a quadratic, linear, and exponential function. Students then graph a quadratic, linear, and exponential function. Students are then asked to fill out a chart comparing each of the functions. Students engage in a discussion about the key features of each of the functions. The second example gives students three different exponential functions where b>1 and asks students to graph each of the functions using the table. The students answer questions about the graphs and tables and compare

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			them, further developing students' conceptual understanding and procedural skill and fluency.
Non-negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Aligned materials make meaningful and purposeful connections that promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. Materials address the practice standards in a way to enrich and strengthen the focus of the content standards instead of detracting from them. ☒ Yes ☐ No	**Required** **4a)** Materials attend to the **full meaning of the practice standards**. Each practice standard is connected to grade/course-level content in a meaningful way and is present throughout the year in assignments, activities, and/or problems.	**Yes**	Materials attend to the full meaning of each practice standard. Each practice standard is connected to course level content and is meaningfully present throughout the materials. Materials support student development of the math practices as they develop procedural skill and fluency and conceptual understanding. Math Practice standards are explicitly evident in teacher materials in the "Promoting the Standards for Mathematical Practice'' boxes within the lesson. Additional discussion questions are provided in teacher materials to promote student development and use of the math practice standards. For example, students express regularity in repeated reasoning (MP.8) as they use the structure of polynomial expressions to identify ways to rewrite them (LSSM A-SSE.A.2) in Module 1, Lesson 1. In Module 2, Lesson 18, students reason quantitatively and abstractly (MP.2) while explaining and assessing residuals in application contexts (LSSM S-ID.B.6b). In Module 3, Lesson 22, students look for and make use of structure (MP.7) as they decompose composition transformations of graphs of functions into a sequence of several simpler transformations (LSSM F-BF.B.3). In Module 3, Lesson 5, students use

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			pseudocode to build sets of numbers and ordered pairs. Students make sense of problems and persevere in solving them (MP.1) as they examine and interpret pseudocode to figure out what would happen if they ran the programs. Students answer questions such as, "How can you explain what this program does in your own words? What can you figure out about the output of this program by looking at the pseudocode? Does your output of the program make sense? Why?"
	Required **4b)** Materials provide sufficient opportunities for students to **construct viable arguments and critique the arguments of others** concerning key grade/course-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the standards that explicitly set expectations for multi-step problems.	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key course-level mathematics that is detailed in the content standards. For example, in Module 6, Lesson 7, students solve a problem that is modeled with a quadratic function and reflect on the effectiveness of a model when finding a solution to a problem (LSSM F-BF.A.1a). Students also create a report of their findings and explain why they chose their model. After presenting their report to the class, students critique the approaches of each group and compare their responses to others. Another example includes Module 5, Lesson 1, in which students construct viable arguments by creating a rule for a given sequence and defending their rule through discussions with other students (LSSM F-IF.A.2 and F-IF.A.3). Also, in

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			Module 6, Lesson 3, students construct viable arguments and critique reasoning of others as they analyze methods for modeling bivariate quantitative data sets (LSSM F-LE.A.1 and S-ID.B.6a). On item 4 of the Module 6 Assessment 1, students conduct error analysis to determine if the time it takes to pay a credit card balance was calculated correctly and explain their answer. In Module 1, Lesson 11, students create equations in one variable and use them to solve the problem (LSSM: A-REI.A.1, REI.B.3, and A-CED.A.3). Students are given the opportunity to complete problems using different approaches, explaining their work as they complete the problem. Students engage in a discussion to defend why they chose their approaches. The class discussion allows for students to critique others' work respectfully to build their understanding.
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. Materials use bold text when a new mathematical term is introduced within context. Lesson Recap sections include a Terminology box which summarizes the mathematical terms introduced and used within the lesson. Teacher materials include Language Support within lessons with considerations for supporting students with more effective use of mathematical language. For example, in Module 1, Lesson 3, students complete a Card Sort activity to develop new

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			vocabulary involving polynomial expressions by including examples and nonexamples of each term. The Language Support provided in the teacher materials for this lesson suggests making a connection between students' prior knowledge of the definition of algebraic expressions. Students later review the mathematical terminology introduced within the lesson in the Module 1, Lesson 3 Recap. In Module 4, Lesson 1, students complete a Frayer Model for the term *quadratic function* in which they must identify an example, identify a nonexample, provide a picture, and find the definition of the term. Teacher materials suggest to encourage students to continue to add to their Frayer Model through the module as they discover new characteristics of quadratic functions. Another example includes Module 2, Lesson 1, in which students learn the definitions of *continuous* and *discrete* through contexts represented by the same linear equation. This activity has students explore similarities and differences of the two contexts and distinguish between continuous and discrete solution sets. The lesson's Recap includes a box summarizing the terms and their definitions. Sample student responses and student dialogues are provided throughout the lessons that promote the use of the specialized language of mathematics. Additionally,

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			teachers are encouraged to use various strategies to promote mathematical discourse. For example, In Module 5, Lesson 1, the teacher is encouraged to "facilitate discussion by using tools and strategies that encourage student-to-student discourse. For example, make flexible use of the Talking Tool, turn and talk, think-pair-share, and the Always Sometimes Never routine.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. Teacher materials include Promoting the Standards for Mathematical Practice sections in each lesson which provide guidance on enhancing student development of the math practice standards. For example, in Module 3, Lesson 20 teacher materials Promoting the Standards for Mathematical Practice it is explained how the lesson implements expressing regularity in repeated reasoning (MP.8) when students complete and analyze a table of values and ordered pairs to look for ways to efficiently reflect graphs of functions (LSSM F-BF.B.3). It also provides the teacher with additional discussion questions to implement within the lesson to promote MP.8 such as "What patterns do you notice when you plot each point individually? When you look at the table, do you see a pattern for choosing the y-

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			value for y=-f(x)? How can that help you graph y=-f(x) more efficiently? What patterns do you notice when you compare the corresponding points on the two graphs?" In Module 2, Lesson 10, students use appropriate tools strategically (MP.5) when determining the best method to solve systems of linear equations (LSSM A-REI.C.6). Additional discussion questions are also provided for teachers to implement within the lesson to promote MP.5, such as "Which method would be most efficient to solve this system of equations? Why? Why did you choose this method? Did it work well?" In Module 6, Lesson 6, students make use of structure (MP.7) as they relate the list of constraints in a fundraising problem to a system of linear inequalities. Additional discussion questions are also provided for teachers to implement within the lesson to promote MP.7, such as "How is this problem similar to problems that you have solved before? How can you use what these constraints have in common to help you solve the problem?"
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT: Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.	**Yes**	Materials provide all students extensive work with course-level problems. Ample practice is given within and after the lesson providing students with opportunity to learn and apply new concepts. For example, in Module 4, Lesson 7, students factor quadratic

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consistent with the progressions in the Standards. ☒ Yes ☐ No			equations by splitting the linear term. Students factor by using a tabular view. It is suggested in teacher materials that factoring by grouping could also be used. Students use this skill repeatedly throughout the course when finding zeros, solving equations, and graphing. Additionally, in Module 2, Lesson 6, students create and graph linear equations and inequalities (LSSM A-CED.A.2) and represent constraints of equations and inequalities and interpret their solutions (LSSM A-CED.A.3). The lesson begins with a Launch activity (items 1-7) in which students write and graph a linear inequality that represents the context from a video (Nina's Food Truck video about sales of tacos and burritos). Students then transition into the Learn section (items 8-11) in which they explore continuous and discrete solution sets leading into the In Context section (items 12-15). The lesson concludes with a Recap section summarizing the new learning and a Practice section with 10 items, most of which have multiple parts. Another example includes Module 4, Lesson 16, in which students solve quadratic equations (LSSM A-REI.B.4b). The lesson contains 8 items that have students strategically choose a method to solve a quadratic equation. After the lesson, the Recap section includes 5 review items and the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			lesson Practice contains 15 items in which students apply their new learning.
	Required **5b)** Materials **relate grade/course-level concepts explicitly to prior knowledge** from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate the new knowledge, building to core instruction, on grade/course-level work. Lessons are appropriately **structured and scaffolded** to support student mastery.	**Yes**	Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each lesson begins with a Fluency section in which students review prerequisite concepts before learning new course-level concepts. This scaffolded structure supports student mastery of the course-level content by meaningfully connecting prior knowledge to new knowledge and supporting the progression of content standards. Teacher materials explicitly relate course-level concepts to prior knowledge through a Before This Module section on the first page of the Module Overview which states the prerequisite student objectives necessary for the module. The After This Module section on the last page of the Module Overview states the student objectives that are subsequent in the progression of the standards. For example, in the Module Overview for Module 3, Functions and Their Representations, the Before This Module explicitly connects prior knowledge from Grade 8, Module 6 (function assigns one output for each input, distinguish between linear and nonlinear functions, and represent linear

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			functions using multiple representations), to current course-level concepts of graphing and interpreting linear functions, piecewise-defined functions, and transformations of functions. The After This Module section connects the course-level concepts learned in Module 3 to those in the progression of the standards of Module 4 (quadratic functions) and Module 5 (exponential functions). Another example is evidenced in Module 1, Lesson 9, which extends the work that was introduced in Module 1, Lesson 3, when students simplified expressions and identified the mathematical property for each step. To further this concept, students solve equations using the same properties from Module 1, Lesson 3. Additionally, in Module 2, Lesson 2, students graph linear equations in two variables by solving for x- and y-intercepts which allows students to apply skills from Module 1, Lesson 9. In Module 2, Lesson 2, students also graph lines using ordered pairs which was a prerequisite skill from prior grades.
	Required **5c)** There is **variety** in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade/course-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	**Yes**	In the materials, students are asked to produce answers in a variety of ways. Students are asked to produce answers and solutions, arguments and explanations, diagrams, and mathematical models in a course-appropriate way. For example, in Module 3, Lesson 6, students represent functions in a variety of ways including equations,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			tables, and graphs and strategically choose function representations to model real-world contexts (LSSM F-IF.A.1 and F-IF.A.2). In items 1, 9, and 14 of the Lesson Practice, students graph functions. In Items 2-5, students simply evaluate functions, while in items 10-11 and 15-17 students evaluate functions and explain the meaning in context. In items 8 and 11, students create a table of values showing outputs for given inputs before graphing the functions. In the Module 6, Lesson 2, Launch activity, students are provided the equation of line of best fit and the correlation coefficient modeled by four different bivariate data sets. Students decide if they agree or disagree with the given information and justify their response. The students also determine which model is most appropriate for data sets, explain their reasoning, and use the models to make predictions based on the data in context. In Module 2, Lesson 1, students find solution sets of linear equations in two variables. Students give advantages and disadvantages of graphs, tables, and set-builder notation. Students complete a table and then graph the equation. Students identify what variables and constants represent in each real-world scenario.
	5d) Support for **English Language Learners and other special populations** is provided. The language in which problems are posed is not an obstacle to understanding the content, and if it is, additional supports (suggestions	**Yes**	Materials include support for English Learners and other special populations. Teacher materials provide Language Support and Differentiation Support at

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	for modifications, “vocabulary to preview”, etc.,) are included.		places of relevancy within the lessons. New terminology introduced within a lesson is also reviewed in the lesson’s Recap section. For example, in Module 5, Lesson 1, the teacher’s guide Language Support suggests flexible grouping throughout Module 5 by pairing students who have different levels of mathematical proficiency, pairing students who have different levels of English language proficiency, and joining pairs to form small groups of four. The materials also suggest grouping students who have the same native language. In Module 3, Lesson 9, the teacher’s guide includes instructional guidance to help students discuss graphs and compare them by having students frame their sentences, such as, “Our sketches are similar because they both have…”, or “Our sketches are different because…” Another example is evidenced in Module 1, Lesson 2, when new vocabulary “algebraic expression” is introduced. At the point of introduction within the teacher materials, the Language Support provides suggested examples for simplifying the definition for students who have difficulty understanding the formal language of the definition given in the lesson. Differentiation Support is also provided in this lesson with a visual model suggestion for helping struggling learners make sense of properties of arithmetic.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
6. QUALITY OF ASSESSMENTS: Materials offer assessment opportunities that genuinely measure progress and elicit direct, observable evidence of the degree to which students can independently demonstrate the assessed grade-specific Louisiana Student Standards for Mathematics. ☒ Yes ☐ No	**Required** **6a)** Multiple **assessment opportunities** are embedded into content materials and measure student mastery of standards that reflect the balance of the standards as presented in materials.	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Lessons include assessment opportunities through Debrief (teacher guided discussion), Practice, and Exit Ticket. Each module contains lessons organized into 4 topics (excluding Module 6 which has 2 topics). Each topic has a corresponding topic quiz. A cumulative module assessment is provided upon conclusion of each module. For example, in Module 2, Lesson 2, students graph linear equations using a variety of methods (LSSM A-CED.A.2) and identify and represent their solution sets (LSSM A-REI.D.10). Teacher materials throughout this lesson provide suggested discussion questions for teacher-facilitated debriefs of lesson activities that informally assess student understanding. Materials also provide an Exit Ticket in which students graph a linear equation in standard form and explain the method they chose. Item 2 in the Module 2 Topic A-1 Quiz formally assesses LSSM A-CED.A.2 by having students graph a linear equation given in standard form. In Module 5, Lesson 17, students write functions to model exponential decay (LSSM F-LE.A.2) and interpret exponential expressions (LSSM A-SSE.A.1b). Teacher materials provide several suggested debriefing questions

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			for opportunities to informally assess student understanding of the content through teacher-facilitated discussion. On the lesson's Exit Ticket, students identify the decay rate of the number of players left in a ping pong elimination tournament (LSSM A-SSE.A.1b), write a function to model the situation provided (LSSM F-LE.A.2), and use their model to determine the number of players left in the tournament after a specified number of rounds. Another opportunity for assessment within the lesson's materials is the lesson Practice which contains sixteen items involving exponential decay models for students to practice the new content. On items 1 and 3 of the Module 5, Topic C Quiz, students interpret exponential expressions (LSSM A-SSE.A.1b) with a provided answer bank of responses (formatted as an interactive drop down menu on the digital platform). In item 2, Part C, students write a function to model an account balance for an account that accrues compound interest (LSSM F-LE.A.2).
	Required **6b)** Assessment items include a **combination of tasks** that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a grade/course-appropriate way.	**Yes**	Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in a real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models in a

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			course-appropriate way. For example, in the Module 2 assessment, students demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real-world contexts. Students find the system of equations that corresponds to a given word problem. Students also graph a set of inequalities to find the solution. In Part A of the Module 2 assessment, item 1, students write a linear equation to model the monthly cost of a cable package. In Part B of that item, students solve for the number of additional channels given a total monthly cost using their equation from Part A. In Module 2 assessment, item 6, Part A, students consider an inequality and graph representing the number of bus rides taken on weekdays and weekends and explain why the claims provided in the problem are incorrect. In item 6, Parts B & C, students write and graph a system of inequalities to represent the scenario. In the Module 1 Assessment, items 2-3, students perform an indicated operation on two polynomials and provide their answer in standard form (procedural skill and fluency); in item 4, students solve a literal equation for x and list the property used in each step (procedural skill and fluency and conceptual understanding); and in item 5, students write an inequality to model the number of weeks someone

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			must work two jobs to earn a minimum total from both jobs (application). In items 7 & 8, students graph their answers and, in item 9, students complete a table by finding the minimum, maximum, median, lower quartile, and upper quartile to summarize a given data set and then use their values to represent the data using a box plot. In item 10, Part C, of the same assessment, students critique the reasoning of others by stating whether they agree or disagree with a given response and explain their answer.
	6c) Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction.	**Yes**	Scoring guidelines and rubrics align to standards; incorporate criteria that are specific, observable, and measurable; and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. Achievement descriptors are provided for each module and are standards-aligned descriptions detailing what students should know and be able to do based on instruction at this point in learning. The proficiency indicators support teachers in interpreting student work and provide examples of partially proficient, proficient, and highly proficient expectations. Topic quizzes and module assessments provide distractor rationale on the answer key for multiple choice and multiple select items. This provides the teacher with misconceptions or misunderstandings that may have led

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			students to an incorrectly selected response. Short answer and constructed response items provide the teacher with a rubric and scoring notes on a 0-2 point scale with key components that students should have in their responses. For example, Module 3, Achievement Descriptor 14 (A1.Mod3.AD14), aligns with LSSM F-BF.B.3. The achievement descriptor indicates that students who identify the effects on the graphs of single transformations are partially proficient, students who describe the effects of the graphs of single transformations are proficient, and students who describe the effects on the graphs of combinations of transformations are highly proficient in the content standard. On the Module 3 Assessment, item 2 is a multiple choice item that asks for the domain of a function given a graph. The distractor rationales provide the teacher with insight as to why a student would select each incorrect response. For example, option C gives the range of the graph instead of the domain, so a student who selected this incorrect response may have domain and range confused. In this same assessment, item 5, Part B, is a constructed response question in which students compare the graphs of f and y=f(x) and explain their answer. The scoring notes provided for this item suggest that students should have 2 components to their responses for full

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			credit and provide a sample response. Students who only give 1 of the 2 components would receive partial credit, and students not giving any correct components would not get any credit for the item.
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.	**Yes**	Materials provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration. Each module contains topic quizzes and module assessments. For an additional purchase, Benchmark assessments are available on the Digital Platform in every other module and serve as a comprehensive assessment of previous modules. Two sessions are provided for each benchmark assessment. For example, Benchmark 1, Sessions 1 and 2, are available in the Module 2 assessments on the Digital Platform and consist of 35 total items assessing content from both Modules 1 and 2. Benchmark 2, Sessions 1 & 2, are available in the Module 4 assessments on the Digital Platform and consist of 38 total items assessing content from Modules 1-4. Benchmark 3, Sessions 1 & 2, are available in the Module 6 assessments on the Digital Platform and consist of 29 total items assessing content from Modules 1-5.
7. ADDITIONAL INDICATORS OF QUALITY:	**Required** **7a)** The content can be **reasonably completed** within a regular school year and the pacing of content allows for maximum student understanding. The materials provide	**Yes**	The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. Pacing guidance is

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Materials are well organized and provide teacher guidance for units and lessons. Materials provide timely supports to target specific skills/concepts to address students' unfinished learning in order to access grade-level work. ☒ Yes ☐ No	guidance about the amount of time a task might reasonably take.		provided in the Grade 6-9 Implementation Guide. There are a total of 128 lessons, each lesson designed for 45 minutes of instruction. Assessment days are designed for topic quizzes (22 total) and module assessments (6 total). For an additional purchase, there are 3 benchmark assessments each containing two sessions. Lessons and assessments account for a total of 162 days. Suggested times are given in the teacher materials for the Launch, Learn, and Land components of each lesson. For example, Module 4, Lesson 6 suggests 10 minutes for the Launch activity, 25 minutes for the Learn section, and 10 minutes for the Land Debrief and Exit Ticket section of the lesson for a total of 45 minutes. This lesson is in Module 4, Topic B, which consists of 8 lessons before the topic quiz.
	Required **7b)** The materials are **easy to use and well organized** for students and teachers. Teacher editions are concise and easy to manage with clear connections between teacher resources. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes.	**Yes**	The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes. Teacher materials are concise and easy to manage with clear connections between teacher resources. The Grades 6-9 Implementation Guide clearly describes all of the lesson components and includes instructional guidance on how to teach the lessons. The guide includes a Plan to Teach section that includes a Module and Topic Planning Component and Guiding

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			Questions to help teachers review each module and topic before teaching the lessons. The same type of guidance is provided at the lesson level in the Plan a Lesson section. Other sections within the guide include Lesson Facilitation, Pacing, and Assessment guidance. Materials provide teacher prompts that promote student thinking and discussion throughout each lesson. For example, Module 6, Lesson 2 provides suggested discussion prompts, which are evidenced throughout the materials. The activity in the lesson provides four scatter plots. The discussion prompt suggests that students describe the association between the variables for each of the sets of data. Another discussion prompt has students consider if the four data sets have the same correlation coefficient even though the association between the variables in the data sets are different. In Module 1, Lesson 8, a UDL: Representation is provided for lesson guidance. The guidance is intended to help students develop an understanding of the concept of set notation by activating their prior knowledge and gives an example analogy that may be used in the lesson for student support. Teacher materials for this lesson also include Teacher Note sections that provide anticipated student questions and ways to respond, prerequisite vocabulary and how it connects to current content, and a suggestion to

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			assign lesson Practice to be completed outside of class, if time does not allow. Teacher prompts to aid in facilitating discussion are evident throughout each lesson. For example, in Module 2, Lesson 10, students solve systems of linear equations using the elimination method (LSSM A-REI.C.6). The Learn section of teacher materials provides several potential question prompts. The Promoting the Standards for Mathematical Practice suggestion for the same lesson also provides questions to promote using appropriate tools strategically (MP.5).
	Required **7c)** Materials include unit and lesson **study tools for teachers**, including, but not limited to, an explanation of the mathematics of each unit and mathematical point of each lesson as it relates to the organizing concepts of the unit and discussion on student ways of thinking and anticipating a variety of student responses.	**Yes**	Materials include unit and lesson study tools for teachers. A module Overview is provided at the beginning of each module with a brief description of each Topic within the module. A Why section is provided after the module Overview that explains why certain topics are being addressed, why specific lessons are labeled as optional, and connections between concepts being made in the upcoming module. Achievement Descriptors give detailed standards-aligned student expectations of the content and student proficiency indicators for each module and identified at the beginning of each lesson. A more detailed Topic overview is provided at the beginning of each topic explaining the logic of the sequence of concepts being addressed in the lessons within the topic.

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			For example, Module 5 Overview outlines the content within each topic (Topic A: Arithmetic & Geometric Sequences, Topic B: Exponential Functions & Graphs, Topic C: Exponential Growth & Decay, and Topic D: Comparing Linear & Exponential Models). The Why section of Module 5 poses and answers questions about the upcoming module including, "Why do you start the module with sequences? Why do you include an optional lesson that addresses Sierpinski triangles? Why do you address rational exponents in Algebra I?" Module 5, Topic A, overview provides detail of the upcoming lessons and structure of the content being introduced. For example, the overview explains that the topic opens with a digital lesson that allows students to explore patterns before formally introducing the concept of a sequence. It then explains the development of the concepts into writing formulas to model sequences, graphing sequences, and providing verbal descriptions to represent sequences. The overview concludes with how Topic A connects to the content that will be addressed in Topic B. Each lesson begins with a Lesson at a Glance that provides an explanation of the lesson, Key Questions of the lesson, Achievement Descriptors being addressed in the lesson, lesson Agenda, and required Materials (for teacher, students, and lesson preparation). Teacher Notes are

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			embedded in the teacher materials within the lesson providing additional study tools and planning support. For example, Module 3 Lesson 2, includes a Teacher Note that explains the correspondence of a function and helps teachers anticipate students' misconceptions.
	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the course. Each module has a Before This Module section that identifies the prerequisite skills and concepts necessary for students to access the course-level content within the upcoming module. It also specifies the grade level and module from which the prerequisite standards were addressed. Each Topic overview explains how the prerequisite skills and concepts connect to current course-level content. For example, Module 2, Before This Module section identifies content from Grade 8, Module 6 including: students represent bivariate numerical data with scatter plots (LSSM 8.SP.A.1), fit data with lines and use them to make predictions (LSSM 8.SP.A.2), represent bivariate categorical data with two-way frequency tables and analyze frequency tables to determine if a possible association exists between variables (LSSM 8.SP.A.4). The Module 2, Topic C, overview explains how these prerequisite skills and concepts connect to the current course-level content of having students more precisely model data sets with

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			residuals and analyzing and interpreting correlation coefficients (LSSM S-ID.B.6b, LSSM S-ID.C.8, and LSSM S-ID.C.9). For an additional purchase, Eureka Math^2 Equip and Pre Module Assessments help identify and support students with unfinished learning. The Pre-Module Assessments assess foundational knowledge needed to access course level content. Each item on the Pre-Assessment indicates the prerequisite skill that the item is assessing. For example, the Module 1, Equip Pre-Module Assessment includes assessment items that assess LSSM 7.EE.A.1, 8.EE.C.7b, 7.EE.B.4a, 6.EE.B.8. 7.EE.B.4, 6.NS.C.7c, 6.SP.B.5b, and 6.SP.A. Supporting Activities are provided for each prerequisite skill. In addition to the activity, it also includes an overview that discussed the skill and/or concept, indicates where this work was addressed, why the knowledge is foundational, when in the module the knowledge is needed, and where in the module there is already lesson-embedded practice with this foundational knowledge.
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**Yes**	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, course-level work. For an additional purchase, Equip Pre-Module Assessments are provided for each module that assist in identifying students who need work on prerequisite skills and

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			concepts. Each item on the Pre-Module Assessment is connected to a prerequisite standard and includes a supporting activity that readdresses the content of the item. The Equip reports help identify student-specific needs and provide data in three different ways including performance by item, performance by student, and trends about overall class performance. For example, on the Module 1 Equip Pre-Module Assessment, item 1, students simplify linear expressions (LSSM 7.EE.A.1). The resources provided for supporting students with the content of item 1 include an Item Overview identifying the standard that was assessed (LSSM 7.EE.A.1), explaining that the prerequisite skill in item 1 is foundational to the course-level work of adding, subtracting, and multiplying polynomial expressions, and where this will occur within the upcoming module. The Teacher Guide provides guidance on implementing the supporting activity for the item including discussion questions. The Student Activity provided for item 1 includes three parts. In Activity 1.A, item 1, students analyze the work of three students who all got the same answer, but in different ways. In items 2-5 of Activity 1.A, students simplify linear expressions. Activity 1.B and Activity 1.C each contain 4 items that have students simplify linear expressions. Guidance is provided in the Teacher

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Guide as to which part of the Student Activity would be most beneficial to assign specific students based on their responses to the core and branching problems of item 1 on the Equip Pre-Module Assessment. Another example includes the Modules 4 & 5 Equip Pre-Module Assessment item 12 that assesses LSSM 8.EE.A.1 to prepare students for Module 5, Lesson 9 course-level content.
	7f) Materials provide **targeted, aligned, prerequisite work** for the major work of the grade/course, directly connected to specific lessons and units in the curriculum.	**Yes**	Materials provide targeted, aligned, prerequisite work for the major work of the course, directly connected to specific lessons and units in the materials. The Equip Pre-Module Assessment provides targeted, aligned, prerequisite work for the major work of the course, directly connected to the specific module of the materials, called Supporting Activities. The Supporting Activities are available through an additional purchase of Eureka Math^2 Equip. These activities provide either direct instruction or practice with prerequisite work and most can be used with a single student, a small group, or the whole class. The Teacher Guide specifies where within the module the prerequisite work will be necessary. For example, on the Equip Pre- Module Assessment for Modules 2 and 3, item 6 assesses LSSM 8.EE.C.8. The Teacher's Guide provides supporting activities to help students who perform poorly on that specific pre-assessment item. In addition to providing the answer key, there are

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			also additional suggestions for dialogue to have with the students to aid in the understanding of the content. Module 1 Equip Pre-Module Assessment, item 6 reviews the absolute value of a number in relation to its position on a number line (LSSM 6.NS.C.7c). If students struggle with this question on the pre-assessment, there are additional activities provided in the Teacher's Guide to assist students with understanding such as displaying a number line and asking students questions about it as provided in the Teacher's Guide.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	**Yes**	Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work. A User Guide is provided for teachers that explains how to use the Equip Pre-Module Assessments and Supporting Activities, available through an additional purchase. The Pre-Module Assessments identify which students need prerequisite work. Recommended Supporting Activities are provided for students and/or groups of students based on their performance. A Teacher Guide is provided for each Pre-Module Assessment and provides pacing recommendations and options for integrating the Supporting Activities. The guide references the lessons when the foundational knowledge was first addressed in prior grade levels or earlier

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			lessons, includes an explanation of why the foundational knowledge is essential for the upcoming module, when in the upcoming modules students first need the knowledge, and a list of places in the upcoming modules where the materials already provide foundational practice embedded within the lessons. The Equip Student Performance Report provides performance by item to identify groups of students who need prerequisite work and connects the student performance to Supporting Activities. The activities are brief and the guide states that they can be used during math class, outside of class time, or at other times during the school day and are designed to be "sprinkled into instruction just before students need the foundational knowledge they teach." The guide provides suggested administration guidance on when to administer the assessments. The materials are structured to include 30 additional days that can be used for assessment and responsive instruction. The guide suggests using these days "flexibly to choose times to give assessments and to sprinkle in supporting activities that address instructional needs without disrupting the pace of instruction." In addition, a guide is provided that indicates the Pre-Assessment Item, the prerequisite skill, when the lesson should be taught by, and the number of supporting activities that

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			are included. For example, The Module 1 Pre-Assessment guidance indicates that Item 5 assesses students ability to "Write equations that represent real world or mathematical situations," that it should be incorporated by Lesson 11, and includes 1 Supporting Activity.

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.

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-negotiable Criteria of Superior Quality[4]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the course. Materials spend minimal time on content outside of the appropriate course level. In assessment materials, assessment components make students/teachers responsible for any topics before the course in which they are introduced.
	2. Consistent, Coherent Content	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials include problems and activities that connect two or more clusters in a domain and/or two or more domains in the course-level where these connections are natural and important.
	3. Rigor and Balance	**Yes**	Materials develop conceptual understanding of key mathematical

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

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			concepts, especially where called for explicitly in the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students spend sufficient time working with engaging applications. It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately.
	4. Focus and Coherence via Practice Standards	**Yes**	Materials attend to the full meaning of each practice standard. Each practice standard is connected to course-level content and is meaningfully present throughout the materials. Practice standards are connected to course-level content and are meaningfully present throughout the materials. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key course-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.
II: Additional Alignment Criteria and Indicators of Superior Quality[5]	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials provide all students extensive work with course-level problems. Materials relate course-level concepts

[5] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier I rating.

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			explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. In the materials, students are asked to produce answers in a variety of ways. Materials include support for English Learners and other special populations.
	6. Quality of Assessments	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real-world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a course-appropriate way. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. For an additional purchase, the materials provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	7. Additional Indicators of Quality	**Yes**	The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials are easy to use and well organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help prompt student thinking, and expected student outcomes. Materials include unit and lesson study tools for teachers. For an additional purchase, the Eureka Math² Equip includes materials that help teachers address unfinished learning. Eureka Math² Equip identifies prerequisite skills and concepts for the major work of the course. Eureka Math² Equip provides guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, course-level work. Eureka Math² Equip provides targeted, aligned, prerequisite work for the major work of the course, directly connected to specific lessons and units in the materials. Eureka Math² Equip provides clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
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 2021-2022 Teacher Leader Advisors are selected from across the state and represent the following parishes and school systems: Acadia, Ascension, Baton Rouge Diocese, Beauregard, Bossier, Calcasieu, Central Community, City of Monroe, Desoto, East Baton Rouge, East Feliciana, Evangeline, Franklin, Iberia, Jefferson, Lafayette, Lafourche, Lincoln, Livingston, Louisiana Tech University, Louisiana Virtual Charter Academy, Orleans, Ouachita, Rapides, Regina Coeli Child Development Center, Richland, Special School District, St. Charles, St. John, St. Landry, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, University View Academy, Vermillion, West Baton Rouge, and West Feliciana. This review represents the work of current classroom teachers with experience in grades 9-12.

Appendix I.

Publisher Response

The publisher had no response.

Appendix II.

Public Comments

There were no public comments submitted.