TEXTBOOK REVIEW FORM

MATHEMATICS

ANALYTICAL MATHEMATICS

Textbook/Series: ____

Edition _________ **Copyright** ________ **Publisher** ____

Reviewed by: ____

This form was based in part on:

Instructional Materials Analysis and Selection

Phase 3: Assessing Content Alignment to the Common Core Standards for Mathematics

A project of

The Charles A. Dana Center

At the University of Texas at Austin

Adapted for Alabama State Department of Education

STANDARDS FOR MATHEMATICAL PRACTICE – MATHEMATICS – GRADE K-12 – OVERALL

Textbook/Series: ____

Edition __________ Copyright _________ Publisher ____

OVERALL RATING: ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	**Comments:**
1. Make sense of problems and preserve in solving them. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	2. Reason abstractly and quantitatively. **Summary/Justification/Evidence** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)
3. Construct viable arguments and critique the reasoning of others. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	4. Model with mathematics. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)
5. Use appropriate tools strategically. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	6. Attend to precision. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)
7. Look for and make use of structure. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	8. Look for and express regularity in repeated reasoning. **Summary/Justification/Evidence:** ☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)

Weak: This is the lowest rating a book can receive. In general, a book that was rated as “weak” scored mostly 1s and 2s on a 4-point scale.

Moderate: This is the middle rating a book can receive. In general, a book that was rated as “moderate” scored mostly 2s and 3s on a 4-point scale.

Strong: This is the highest rating a book can receive. In general, a book that was rated as “strong” scored mostly 3s and 4s on a 4-point scale.

Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

1. Make sense of problems and persevere in solving them.

These students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. These students consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to obtain the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solve complex problems and identify correspondences between different approaches.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships. One is the ability to *decontextualize*, to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents. The second is the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

3. Construct viable arguments and critique the reasoning of others.

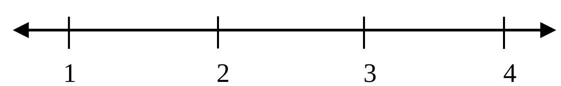
These students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. These students justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments; distinguish correct logic or reasoning from that which is flawed; and, if there is a flaw in an argument, explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until the middle or upper grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

4. Model with mathematics.

These students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, students might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, students might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts, and formulas and can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

5. Use appropriate tools strategically.

Mathematically proficient students consider available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a Web site, and use these to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

6. Attend to precision.
These students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. Mathematically proficient students are careful about specifying units of measure and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, and express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. These students also can pause and reflect for an overview and shift perspective. They can observe the complexities of mathematics, such as some algebraic expressions as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

1 2 3 4

Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

8. Look for and express regularity in repeated reasoning.

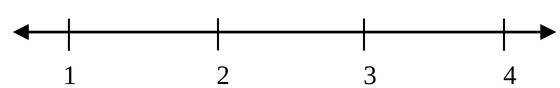
They notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y – 2)/(x – 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x – 1)(x + 1)$, $(x – 1)(x^2 + x + 1)$, and $(x – 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As students work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details and continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



TEXTBOOK REVIEW FORM – MATHEMATICS – OVERALL
COLLEGE- AND CAREER-READY STANDARDS & OTHER CRITERIA – GRADE K

Textbook/Series: ____

Edition __________ Copyright ________ Publisher ____

OVERALL RATING:	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	Important Mathematical Ideas: **Summary/Justification/Evidence:**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)
Skills and Procedures: **Summary/Justification/Evidence:**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	Mathematical Relationships: **Summary/Justification/Evidence**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)
Content: **Summary/Justification/Evidence:**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	Instruction: **Summary/Justification/Evidence:**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)
Assessment: **Summary/Justification/Evidence:**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)	Technology: **Summary/Justification/Evidence:**	☐ Weak (1-2) ☐ Moderate (2-3) ☐ Strong (3-4)

Weak: This is the lowest rating a book can receive. In general, a book that was rated as "weak" scored mostly 1s and 2s on a 4-point scale.

Moderate: This is the middle rating a book can receive. In general, a book that was rated as "moderate" scored mostly 2s and 3s on a 4-point scale.

Strong: This is the highest rating a book can receive. In general, a book that was rated as "strong" scored mostly 3s and 4s on a 4-point scale.

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Represent and model with vector quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1. (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., v, |v|, ||v||), including the use of eigen-values and eigen-vectors. [N-VM1] **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

<table>
<tr><th>Represent and model with vector quantities.</th><th>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td rowspan="3">2. (+) Solve problems involving velocity and other quantities thacan be represented by vectors, including navigation (e.g., airplane, aerospace, oceanic). [N-VM3]

Indicate the chapter(s), sections, and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4
Skills and Procedures 1 2 3 4
Mathematical Relationships 1 2 3 4
Summary/Justification/Evidence</td></tr>
<tr><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td>Overall Rating 1 2 3 4</td></tr>
</table>

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Represent and model with vector quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
3. (+) Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes. Find the dot product and the cross product of vectors. [N-VM4a] **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Represent and model with vector quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
4. (+) Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum, including vectors in complex vector spaces. [N-VM4b]	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Represent and model with vector quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
5. (+) Understand vector subtraction v – w as v + (–w), where (–w) is the additive inverse of w, with the same magnitude as w and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise, including vectors in complex vector spaces. [N-VM4c]	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Perform operations on matrices and use matrices in applications.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
6. (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network, including linear programming. [N-VM6]	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Perform operations on matrices and use matrices in applications.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
7. (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled, including rotation matrices. [N-VM7] **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Perform operations on matrices and use matrices in applications.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
8. (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse. Solve matrix equations using augmented matrices. [N-VM10] **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

Perform operations on matrices and use matrices in applications.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
9. (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors, including matrices larger than 2 × 2. [N-VM11] **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Students will:

NUMBER AND QUANTITY

Vector and Matrix Quantities

<table>
<tr>
<td>Perform operations on matrices and use matrices in applications.</td>
<td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td>
</tr>
<tr>
<td>10. (+) Work with 2 × 2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area. Solve matrix application problems using reduced row echelon form. [N-VM12]</td>
<td>Important Mathematical Ideas 1 2 3 4
Skills and Procedures 1 2 3 4
Mathematical Relationships 1 2 3 4

Summary/Justification/Evidence</td>
</tr>
<tr>
<td rowspan="2">Indicate the chapter(s), sections, and/or page(s) reviewed.</td>
<td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td>
</tr>
<tr>
<td>Overall Rating
1 2 3 4</td>
</tr>
</table>

Students will:

NUMBER AND QUANTITY

Complex Numbers

<table>
<tr><th>Use complex numbers in polynomial identities and equations.</th><th>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</th></tr>
<tr><td rowspan="3">11. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials. Understand the importance of using complex numbers in graphing functions on the Cartesian or complex plane. [N-CN9]

Indicate the chapter(s), sections, and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary/Justification/Evidence</td></tr>
<tr><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td>Overall Rating 1 2 3 4</td></tr>
</table>

Students will:

NUMBER AND QUANTITY

Limits

Understand limits of functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
12. Calculate the limit of a sequence, of a function, and of an infinite series.	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

ALBEBRA

Seeing Structure in Expressions

	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
13. Use the laws of Boolean Algebra to describe true/false circuits. Simplify Boolean expressions using the relationships between conjunction, disjunction, and negation operations.	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

ALBEBRA

Seeing Structure in Expressions

	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
14. Use logic symbols to write truth tables. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Students will:

ALBEBRA

Arithmetic With Polynomials and Rational Functions

	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
15. Reduce the degree of either the numerator or denominator of a rational function by using partial fraction decomposition or partial fraction expansion. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

FUNCTIONS

Trigonometric Functions

Extend the domain of trigonometric functions using the unit circle.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
16. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions. [F-TF4]. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Students will:

FUNCTIONS

Trigonometric Functions

<table>
<tr><td>Apply trigonometry to general triangles.</td><td>Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.</td></tr>
<tr><td rowspan="3">17. (+) Prove the Law of Sines and the Law of Cosines and use them to solve problems. Understand Law of Sines = 2r, where r is the radius of the circumscribed circle of the triangle. Apply the Law of Tangents. [G-SRT10]

Indicate the chapter(s), sections, and/or page(s) reviewed.</td><td>Important Mathematical Ideas 1 2 3 4

Skills and Procedures 1 2 3 4

Mathematical Relationships 1 2 3 4

Summary/Justification/Evidence</td></tr>
<tr><td>Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):</td></tr>
<tr><td>Overall Rating 1 2 3 4</td></tr>
</table>

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – ANALYTICAL MATHEMATICS

Students will:

FUNCTIONS

Trigonometric Functions

Apply trigonometry to general triangles.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
18. Apply Euler's and deMoivre's formulas as links between complex numbers and trigonometry. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITERIA AND INDICATORS – GRADES K-12

Documenting Alignment to
Additional Criteria and Indicators

Content

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
1. Content is designed for students of varied abilities and understanding.	**Overall Rating** 1 2 3 4
2. Content is free of bias and/or controversial information.	**Overall Rating** 1 2 3 4
3. Content includes strategies for vocabulary instruction and graphic organizers.	**Overall Rating** 1 2 3 4
4. Content includes assignments that encourage integration of other content areas to support a math concept/skill.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITERIA AND INDICATORS – GRADES K-12

Documenting Alignment to
Additional Criteria and Indicators

Technology

Criteria and Indicators	Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.
1. Technology support and suggestions for appropriate use of multimedia resources are provided.	**Overall Rating** 1 2 3 4
2. Technology is integrated with student activities so that students collect, organize, analyze, and present data.	**Overall Rating** 1 2 3 4
3. Textbook and supplemental Contents are available online and/or on CD-ROM.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITERIA AND INDICATORS – GRADES K-12

Documenting Alignment to
Additional Criteria and Indicators

Assessment

Criteria and Indicators	Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.
1. Some assessments are designed to measure student understanding above the knowledge level.	**Overall Rating** 1 2 3 4
2. Guidance is provided to teacher regarding how assessment information can be used to inform instruction.	**Overall Rating** 1 2 3 4
3. Rubrics are provided for grading some assignments.	**Overall Rating** 1 2 3 4
4. Some opportunities are provided for students to check their own understanding.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITERIA AND INDICATORS – GRADES K-12

Documenting Alignment to
Additional Criteria and Indicators

Assessment (Continued)

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
5. Assessment activities examine the extent to which students can apply information to situations that require reasoning and creative thinking.	**Overall Rating** 1 2 3 4
6. Multiple means of assessments are used, informal as well as formal.	**Overall Rating** 1 2 3 4
7. Conceptual understanding and procedural knowledge are frequently assessed through tasks that ask students to apply information about a given concept in novel situations.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITERIA AND INDICATORS – GRADES K-12

Documenting Alignment to
Additional Criteria and Indicators

Instruction

Criteria and Indicators	Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.
1. Teacher guide provides suggestions for how to demonstrate/model skills or use of knowledge.	**Overall Rating** 1 2 3 4
2. Teacher guide offers alternative instructional strategies for advanced learners, struggling learners, ELL and Sp. Ed.	**Overall Rating** 1 2 3 4
3. Teacher guide suggests multiple opportunities for students to demonstrate understanding.	**Overall Rating** 1 2 3 4
4. Teacher guide provides opportunities for guided practice and scaffolded support.	**Overall Rating** 1 2 3 4
5. Teacher guide includes suggestions to diagnose student errors, explanations of how these errors may be corrected, and how to further develop student ideas.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**