TEXTBOOK REVIEW FORM

MATHEMATICS

GRADE 8

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

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

Textbook/Series: _____

Edition _____   Copyright _____   Publisher _____

OVERALL RATING:	Weak (1-2)	Comments:
	Moderate (2-3)	
	Strong (3-4)	

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.

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

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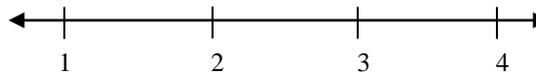
TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

**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

<----|--------|--------|--------|---->
   1   2   3   4
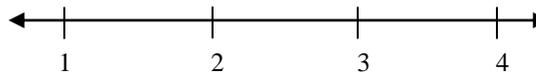
TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

**Documenting Alignment to the
Standards for Mathematical Practice**

Mathematically proficient students:

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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

$$\xleftarrow{\quad\quad} \underset{1}{|} \quad\quad \underset{2}{|} \quad\quad \underset{3}{|} \quad\quad \underset{4}{|} \xrightarrow{\quad\quad}$$
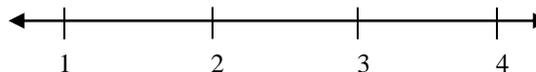
TEXTBOOK REVIEW FORM – MATHEMATICS – STANDARDS FOR MATHEMATICAL PRACTICE – GRADES K-12

Documenting Alignment to the
Standards for Mathematical Practice

Mathematically proficient students:

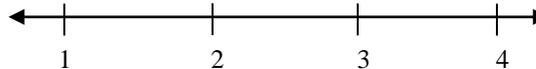**5.　Use appropriate tools strategically.**

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):
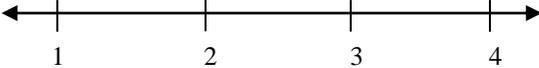
Summary/Justification/Evidence

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
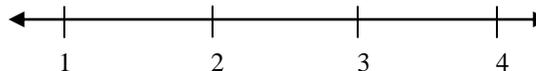
**Documenting Alignment to the
Standards for Mathematical Practice**

Mathematically proficient students:

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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

1   2   3   4
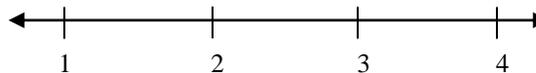
TEXTBOOK REVIEW FORM – MATHEMATICS – OVERALL
COLLEGE- AND CAREER-READY STANDARDS & OTHER CRITERIA – GRADE K

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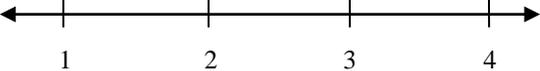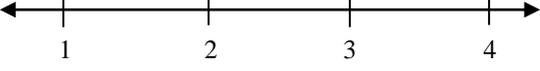
Moderate: This is the middle rating a book can receive. In general, a book that was rated as "moderate" scored mostly 2s and 3s on a 4-point scale.

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.
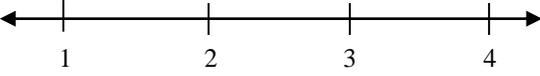
Students will:

The Number System

Know that there are numbers that are not rational, and approximate them by rational numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. [8-NS1]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Overall Rating** 1 2 3 4

Students will:

The Number System

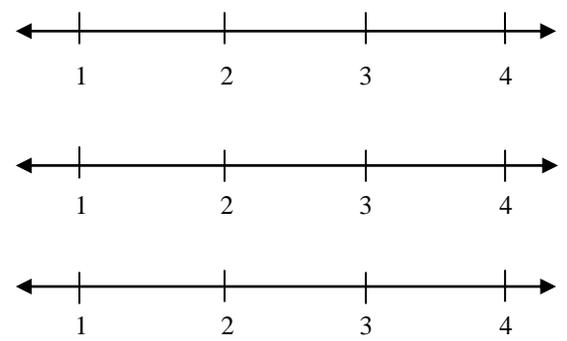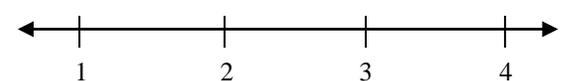| Know that there are numbers that are not rational, and approximate them by rational numbers.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., $\pi2$). [8-NS2] Example: By truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Expressions and Equations

Work with radicals and integer exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
3. Know and apply the properties of integer exponents to generate equivalent numerical expressions. [8-EE1] Example: $32 \times 3\text{-}5 = 3\text{-}3 = \frac{1}{3^3} = \frac{1}{27}$.	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
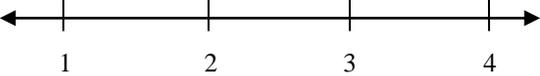COLLEGE- AND CAREER-READY STANDARDS – GRADE 8**

Students will:

Expressions and Equations

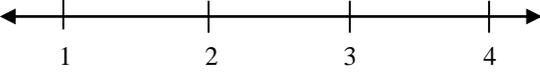| Work with radicals and integer exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
4. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational. [8-EE2]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Expressions and Equations

Work with radicals and integer exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
5. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. [8-EE3] Example: Estimate the population of the United States as 3×108 and the population of the world as 7×109, and determine that the world population is more than 20 times larger.	**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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – GRADE 8
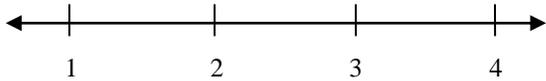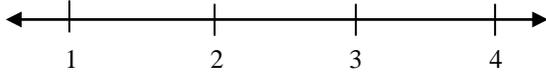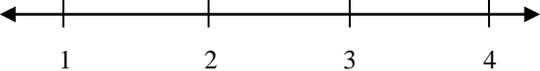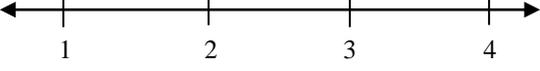
Students will:

Expressions and Equations

Work with radicals and integer exponents.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
6. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. [8-EE4]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Expressions and Equations

Understand the connections among proportional relationships, lines, and linear equations..	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
7. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. [8-EE5] Example: Compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating ← ︱1 ︱2 ︱3 ︱4 →

Students will:

Expressions and Equations

Understand the connections among proportional relationships, lines, and linear equations..	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
8. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b. [8-EE6]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Expressions and Equations

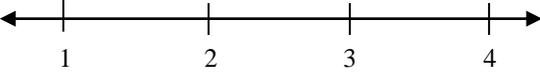| Analyze and solve linear equations and pairs of simultaneous linear equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
9. Solve linear equations in one variable. [8-EE7]	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 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:

Expressions and Equations

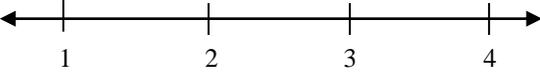| Analyze and solve linear equations and pairs of simultaneous linear equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms until an equivalent equation of the form x = a, a = a, or a = b results (where a and b are different numbers). [8-EE7a]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Expressions and Equations

Analyze and solve linear equations and pairs of simultaneous linear equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions, using the distributive property and collecting like terms. [8-EE7b]	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:

Expressions and Equations

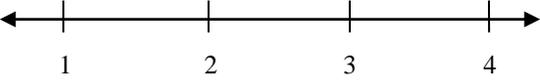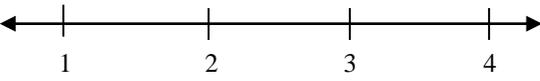| Analyze and solve linear equations and pairs of simultaneous linear equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
10. Analyze and solve pairs of simultaneous linear equations. [8-EE8]	Important Mathematical Ideas 1　　2　　3　　4 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:

Expressions and Equations

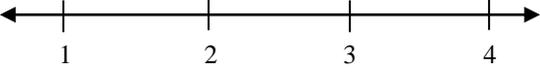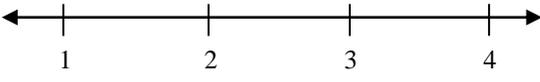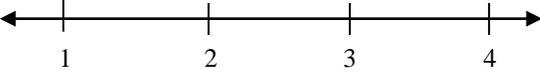| **Analyze and solve linear equations and pairs of simultaneous linear equations.**	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersections of their graphs because points of intersection satisfy both equations simultaneously. [8-EE8a]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Expressions and Equations

Analyze and solve linear equations and pairs of simultaneous linear equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. [8-EE8b] Example: $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.	Important Mathematical Ideas $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4 Skills and Procedures $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4 Mathematical Relationships $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4

Students will:

Expressions and Equations

Analyze and solve linear equations and pairs of simultaneous linear equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
c. Solve real-world and mathematical problems leading to two linear equations in two variables. [8-EE8c] Example: Given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.	Important Mathematical Ideas $\longleftarrow$ 1 2 3 4 $\longrightarrow$ Skills and Procedures $\longleftarrow$ 1 2 3 4 $\longrightarrow$ Mathematical Relationships $\longleftarrow$ 1 2 3 4 $\longrightarrow$ **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating $\longleftarrow$ 1 2 3 4 $\longrightarrow$

Students will:

Functions

Define, evaluate, and compare functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
11. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (Function notation is not required in Grade 8.) [8-F1]	Important Mathematical Ideas $\longleftrightarrow$ 1 2 3 4
	Skills and Procedures $\longleftrightarrow$ 1 2 3 4
	Mathematical Relationships $\longleftrightarrow$ 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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating $\longleftrightarrow$ 1 2 3 4

Students will:

Functions

Define, evaluate, and compare functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
12. Compare properties of two functions, each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). [8-F2] Example: Given a linear function represented by a table of values and linear function represented by an algebraic expression, determine which function has the greater rate of change.	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Functions

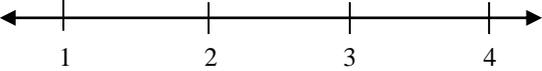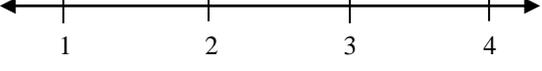| Define, evaluate, and compare functions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
13. Interpret the equation $y = mx + b$ as defining a linear function whose graph is a straight line; give examples of functions that are not linear. [8-F3] Example: The function $A = s2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4), and (3,9), which are not on a straight line.	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Functions

Use functions to model relationships between quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
14. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x,y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of linear function in terms of the situation it models and in terms of its graph or a table of values. [8-F4]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – GRADE 8

Students will:

Functions

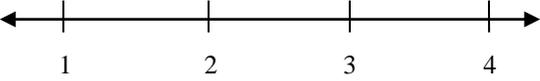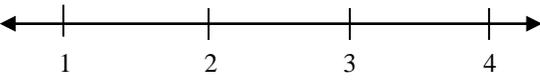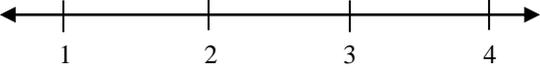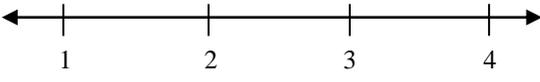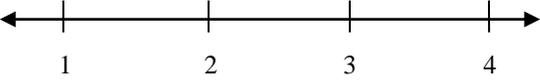| Use functions to model relationships between quantities.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
15. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. [8-F5]	**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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Overall Rating** 1 2 3 4

Students will:

Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

16. Verify experimentally the properties of rotations, reflections, and translations: [8-G1]	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
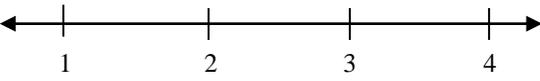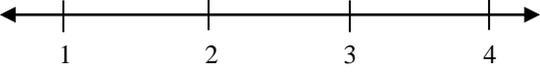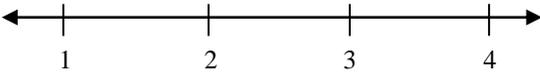**COLLEGE- AND CAREER-READY STANDARDS – GRADE 8**

Students will:

Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
a. Lines are taken to lines, and line segments are taken to line segments of the same length. [8-G1a]	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
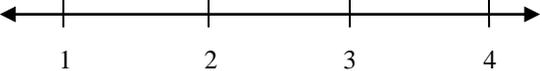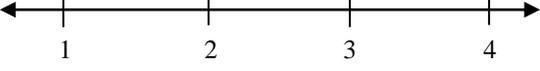## COLLEGE- AND CAREER-READY STANDARDS – GRADE 8

Students will:

Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
b. Angles are taken to angles of the same measure. [8-G1b]	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
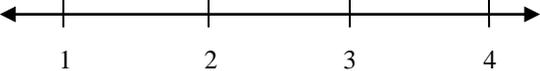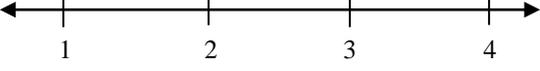## COLLEGE- AND CAREER-READY STANDARDS – GRADE 8

Students will:

Geometry

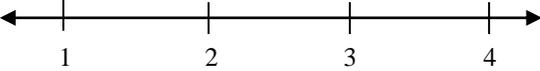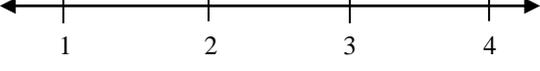| Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
c. Parallel lines are taken to parallel lines. [8-G1c]	Important Mathematical Ideas 1 2 3 4
	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:

Geometry

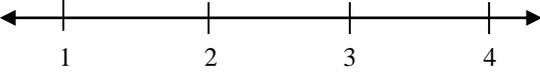| Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
17. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. [8-G2]	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Geometry

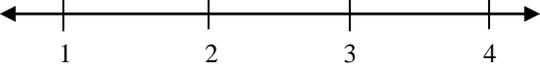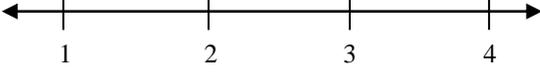| Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
18. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates. [8-G3]	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:

Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
19. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. [8-G4]	Important Mathematical Ideas $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4 Skills and Procedures $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4 Mathematical Relationships $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating $\quad$ 1 $\quad$ 2 $\quad$ 3 $\quad$ 4

TEXTBOOK REVIEW FORM - MATHEMATICS
COLLEGE- AND CAREER-READY STANDARDS – GRADE 8

Students will:

Geometry

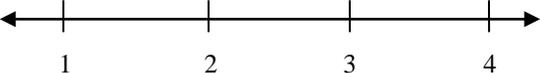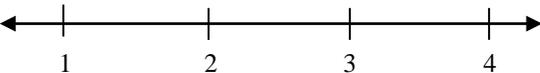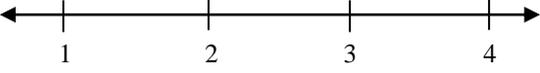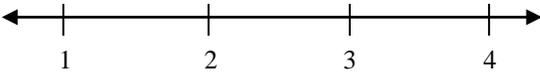| Understand congruence and similarity using physical models, transparencies, or geometry software.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
20. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. [8-G5] Example: Arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give argument in terms of transversals why this is so.	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

Students will:

Geometry

Understand and apply the Pythagorean Theorem.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
21. Explain a proof of the Pythagorean Theorem and its converse. [8-G6]	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
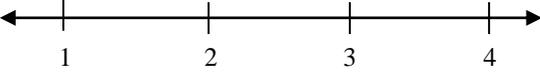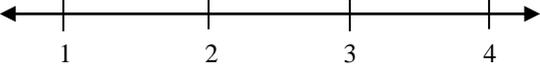## COLLEGE- AND CAREER-READY STANDARDS – GRADE 8

Students will:

Geometry

Understand and apply the Pythagorean Theorem.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
22. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. [8-G7]	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:

Geometry

Understand and apply the Pythagorean Theorem.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
23. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. [8-G8]	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 – GRADE 8

Students will:

Geometry

Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
24. Know the formulas for the volumes of cones, cylinders, and spheres, and use them to solve real-world and mathematical problems. [8-G9]	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:

Statistics and Probability

Investigate patterns of association in bivariate data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
25. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. [8-SP1]	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:

Statistics and Probability

Investigate patterns of association in bivariate data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
26. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. [8-SP2]	Important Mathematical Ideas
 1   2   3   4 Skills and Procedures 1   2   3   4 Mathematical Relationships 1   2   3   4 **Summary/Justification/Evidence**
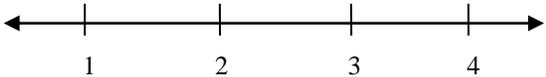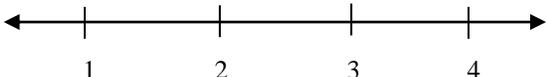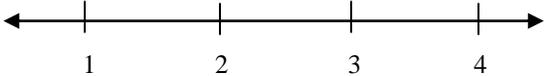| **Indicate the chapter(s), sections, and/or page(s) reviewed.**	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

Students will:

Statistics and Probability

Investigate patterns of association in bivariate data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
27. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. [8-SP3] Example: In a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1——2——3——4

Students will:

Statistics and Probability

Investigate patterns of association in bivariate data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
28. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. [8-SP4] Example: Collect data from students in your class on whether or not they have a curfew on school nights, and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?	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):
Indicate the chapter(s), sections, and/or page(s) reviewed.	
	Overall Rating 1 2 3 4

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

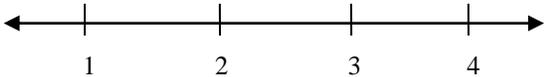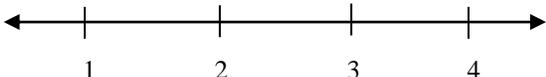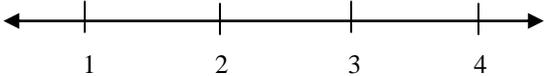**Documenting Alignment to**
Additional Criteria and Indicators

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
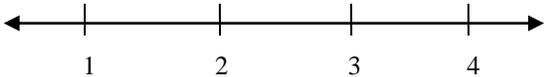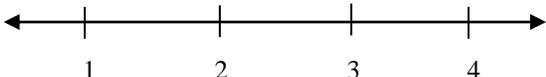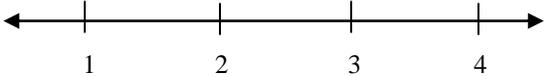**Additional Criteria and Indicators**

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

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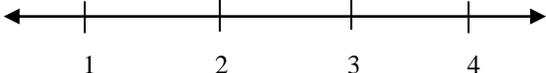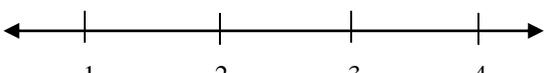**Additional Criteria and Indicators**

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

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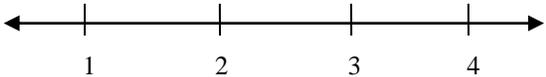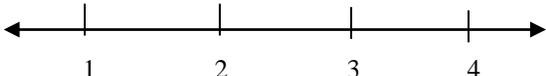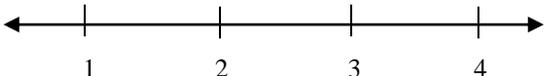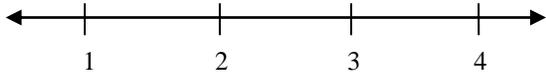**Additional Criteria and Indicators**

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:**