

B Big Ideas Learning



B.E.S.T.
Standards for
MATH
Grades 6–8



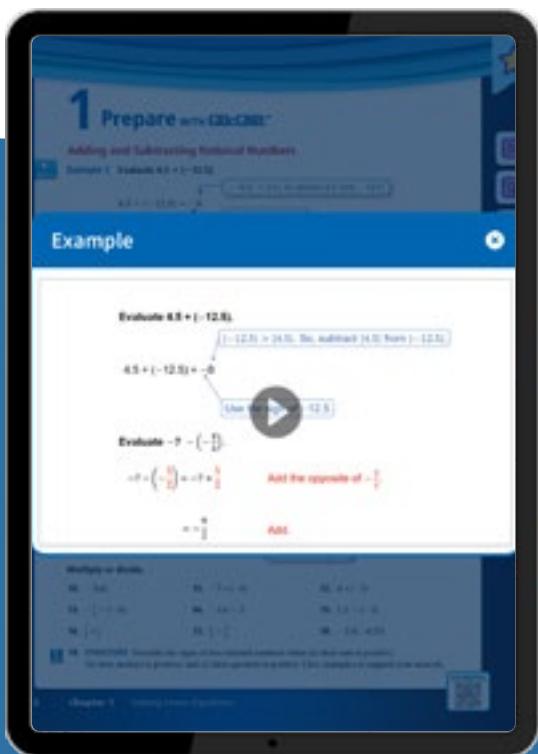


A K-12 Program Built for Florida

Big Ideas Learning's entirely NEW *Florida's B.E.S.T. Standards for MATH* program empowers Florida educators and ignites student learning from kindergarten through high school (K-12).

Florida's B.E.S.T. Standards for MATH was developed through a rich collaboration with Florida-based math education experts and explicitly adheres to the Florida's B.E.S.T. Standards for Mathematics. The Student and Teaching Editions feature each Florida benchmark to make the expectations clear for both students and teachers. The integration of the Mathematical Thinking and Reasoning Standards (MTRs) fosters student achievement and provides teachers with the instructional guidance needed to reach all students.

Using the latest educational research, the program incorporates strategies that are proven to have the highest impact on student achievement, while supporting the B.E.S.T. Standards. This instructional approach forms a clear, concise, and comprehensive, vertically aligned solution to help accelerate learning for *all* Florida students.

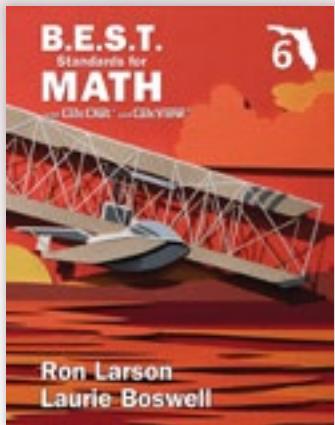


Coherent K-12 Progression from a Single Authorship Team

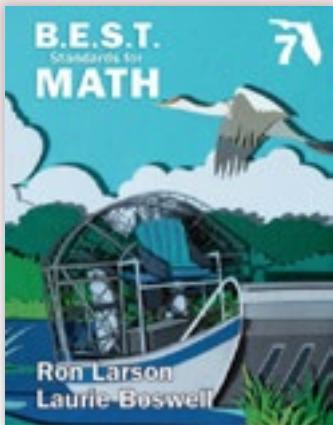
Written by a renowned, single authorship team, the program provides a cohesive, coherent, and rigorous mathematics curriculum that encourages students to become strategic thinkers and problem solvers.



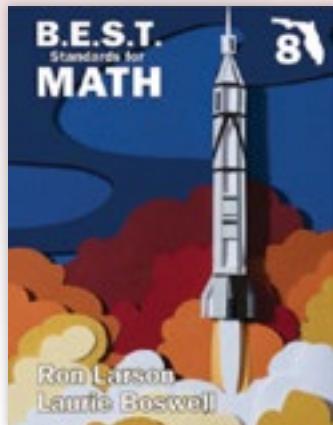
All Middle School pathways are covered using resources in print, digitally, or a blend of both!



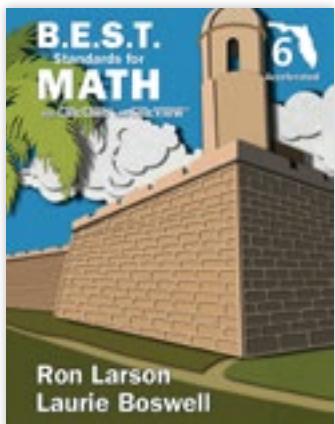
GRADE 6



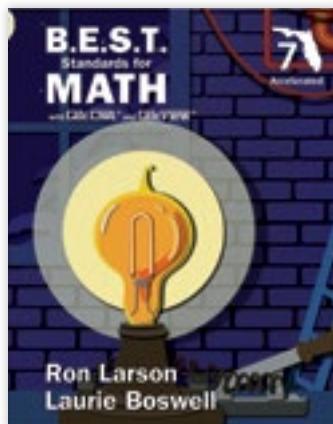
GRADE 7



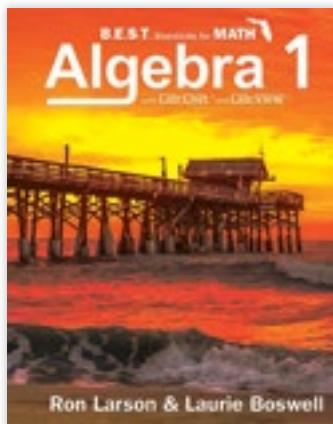
GRADE 8



GRADE 6 ACCELERATED



GRADE 7 ACCELERATED



ALGEBRA 1



Ron Larson, Ph.D.

"Laurie Boswell and I wholeheartedly endorse Florida's Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards. When these standards were announced, we immediately went to work to write and develop a program that embraces the Florida B.E.S.T. Standards. We are confident that Big Ideas Learning's all-new K-12 program written specifically for Florida will represent a new level of achievement and understanding in mathematics education."



Laurie Boswell, Ed.D.

"We developed our new K-12 program to support teacher implementation of Florida's Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards. The alignment with the B.E.S.T. Standards and the integration of the Mathematical Thinking and Reasoning Standards will ensure that all students engage with mathematics in meaningful ways that promote a deeper learning and understanding of mathematics."

Middle School Math

Integrated Mathematical Thinking and Reasoning

With Florida's *B.E.S.T. Standards for MATH*, students develop mathematical mindsets through integrated **Mathematical Thinking and Reasoning Standards (MTRs)**. Throughout the program, students can consciously learn, demonstrate, and self-assess their understanding of the MTRs. Call outs and labels throughout the Student Edition make it easy for students to identify which MTRs they are addressing. Additionally, teachers have access to valuable MTR support at point of use in the **Teaching Edition** through **Laurie's Notes**.

Example 1 Making a Circle Graph

The table shows the results of a survey. Display the data in a circle graph.

Step 1: Find the total number of people.
 $25 + 15 + 12 + 8 = 60$

Step 2: Write and solve a proportion to find the angle measure for each section of the graph.

Favorite Amusement Park	People
Disney World	25
Busch Gardens	15
Universal Studios	12
Marineland	8

Disney World Busch Gardens Universal Studios Marineland

$$\frac{25}{60} = \frac{x}{360^\circ}$$
$$\frac{15}{60} = \frac{x}{360^\circ}$$
$$\frac{12}{60} = \frac{x}{360^\circ}$$
$$\frac{8}{60} = \frac{x}{360^\circ}$$
$$150^\circ = x$$
$$90^\circ = x$$
$$72^\circ = x$$
$$48^\circ = x$$

Step 3: Use a protractor to draw the angle measures found in Step 2 on a circle. Then label the sections.

MTR 1.1

Students **actively participate in effortful learning** by maintaining a positive mindset, persevering, asking questions, and helping each other.

2 MTR 22. **CHOOSE A REPRESENTATION** A survey asks 100 students to choose their favorite sports. The results are shown in the circle graph.

- Explain why the graph is misleading.
- What type of data display is more appropriate for the data? Explain.

Sport	Percentage
Soccer	35%
Baseball	25%
Basketball	30%
Football	16%
Other	4%

MTR 2.1

Students **demonstrate understanding by representing problems in multiple ways** through modeling and progress from choosing representations to using algorithms and equations.

3 MTR 46. **CHOOSE A METHOD** Describe an efficient method to find the product $4^2 \cdot 20 \cdot (-25)^2 \cdot 5$ without using technology. Justify your method.

MTR 3.1

When students **complete tasks with mathematical fluency**, they select efficient methods, complete tasks accurately, and use feedback to improve efficiency.

4 MTR

24. YOU BE THE TEACHER Your friend finds the number of ways that choosing *not* purple can occur. Is your friend correct? Explain your reasoning.



purple	not purple
purple	red, blue, green, yellow

Choosing *not* purple can occur in 4 ways.

MTR 4.1

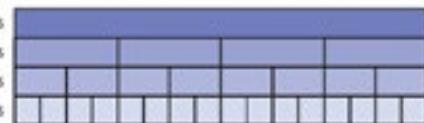
Students who **engage in discussions that reflect on the mathematical thinking** construct arguments and communicate mathematical ideas effectively.

Exploration 1 Converting Units of Measure

Work with a partner.

- a. The diagram below represents the relationships among gallons, quarts, pints, and cups. Write at least four unit rates represented in the diagram.

Gallons
Quarts
Pints
Cups



MTR 5.1

Students **use patterns and structure to help understand and connect mathematical concepts** by focusing on details, finding logical order, or breaking down a problem into smaller parts.

5 MTR
RELATE CONCEPTS
Explain why relationships between capacities form ratios.

6 MTR **ASSESS REASONABILITY**

Does it make sense that Example 1 has two slightly different answers?

Method 1: Create a ratio table using the unit rate 0.3 meter per foot.

Meters	0.3	57
Feet	1	190

Method 2: Create a ratio table using the unit rate 3.28 feet per meter.

Feet	3.28	1	190
Meters	1	$\frac{1}{3.28}$	$\frac{190}{3.28}$

► So, the roadway is about 57 meters above the water.
► So, the roadway is about $\frac{190}{3.28} = 57.93$ meters above the water.

MTR 6.1

When students **assess the reasonability of solutions**, they are developing a habit of checking their calculations when solving problems.

MTR 7.1

Students who **apply mathematics to real-world contexts** connect concepts to everyday experiences and use models and methods to understand, represent, and solve problems.



7 MTR

- 23. INVESTIGATE** Research black bear population management in Florida. Make a scatter plot showing the change in the state's black bear population over time. Have population

Get your free MTR classroom poster!



Middle School Math

Focus and Coherence Geared Toward Fluency

Focus on Florida Benchmarks

By showcasing the precise language of the Florida benchmarks, **Learning Targets** and **Success Criteria** support and align to those Florida-specific expectations, giving students clarity around lesson goals.

7.2 Multiplying and Factoring Expressions

Learning Target: Multiply and factor algebraic expressions.

Success Criteria:

- I can multiply algebraic expressions.
- I can identify the greatest common factor of terms, including variable terms.
- I can use the Distributive Property to factor algebraic expressions.

Algebraic Reasoning

MA.8.AR.1.2 Apply properties of operations to multiply two linear expressions with rational coefficients.
MA.8.AR.1.3 Rewrite the sum of two algebraic expressions having a common monomial factor as a common factor multiplied by the sum of two algebraic expressions.

Section 7.2 Multiplying and Factoring Expressions 308

Coherence of B.E.S.T. Progressions

A seamless progression of topics within and between grades creates a coherent curriculum for students and guarantees topics are not taught in isolation.

COHERENCE Through the Grades		
Grade 5	Grade 6	Grade 7
<ul style="list-style-type: none">MA.5.NSO.2.3 Fluently add and subtract decimals to the thousandths place.MA.5.NSO.2.4 Explore multiplication and division of multi-digit decimals to the hundredths place.MA.5.NSO.2.5 Multiply and divide decimals to the tenths place by one-tenth and one-hundredth.MA.5.FR.2.1 Add and subtract fractions with unlike denominators.MA.5.FR.2.2 Multiply a fraction by a fraction.MA.5.FR.2.3 Represent the division of two whole numbers as a fraction.MA.5.FR.2.4 Explore the division of a unit fraction by a whole number and a whole number by a unit fraction.	<ul style="list-style-type: none">MA.6.NSO.2.3 Solve real-world problems involving addition, subtraction, multiplication, and division with positive fractions, mixed numbers, or multi-digit decimals.MA.6.NSO.2.4 Fluently multiply and divide fractions and mixed numbers.MA.6.NSO.2.5 Evaluate positive rational numbers with natural number exponents.MA.6.NSO.2.6 Fluently multiply and divide positive decimals to the thousandths place.	<ul style="list-style-type: none">MA.7.NSO.2.2 Fluently add, subtract, multiply, and divide rational numbers.MA.7.NSO.2.1 Use the order of operations to evaluate expressions involving rational numbers.

Fluency to Support Rigor

Florida's B.E.S.T. Standards for MATH helps teachers close the rigor gap by empowering students to grow and thrive in their unique scholastic ways. In every lesson, students engage in all aspects of rigor: conceptual understanding, procedural fluency, and application.

Example 3: Solving a Ratio Problem

There are 75 milligrams of sodium in every 12 crackers. How many crackers does one cracker contain?

Method 1: Use a ratio proportion. Increase the cracker from using the original ratio of 75 to 12.



Method 2: Use a ratio table. The ratio of milligrams of sodium to crackers is 75 to 12. Find an equivalent ratio with 12 crackers.

Sodium (milligrams)	Crackers
75	12
12	?

REFLECT ON YOUR WORK
How can using the ratio table help you solve this problem more quickly?

Conceptual Understanding and Procedural Fluency

Florida's B.E.S.T. Standards for MATH was purposefully and intentionally designed to meet the B.E.S.T. Standards and to help students reach automaticity.

Throughout each stage of fluency, students progress from

Stage 1 Exploration

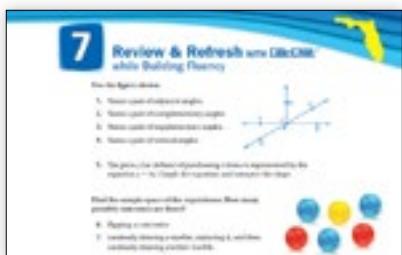
Exploring concepts with interactive manipulatives and tools to develop conceptual understanding

Stage 2 Procedural Reliability

Independently choosing any method to solve

Stage 3 Procedural Fluency

Choosing the most efficient procedure



Students also get to practice with each stage of fluency in the **Review & Refresh with CalcChat while Building Fluency** feature, where questions are designed to meet students where they are at in their fluency journey.

Using MTR 7.1: Real-World Applications to Enhance Rigor

Modeling Real Life, Dig Deeper, STEAM

Performance Tasks, and other non-routine problems help students reach deep levels of learning. With the incorporation of real-world, Florida-themed content, students are encouraged to think strategically to solidify math connections and transfer their learning to new contexts.

7 **Review & Refresh with CalcChat: While Building Fluency**

32. MODELING REAL LIFE You and two friends go to a restaurant and order the food shown in the table. You order the Bittery to share and the Cuban Burger for your meal.

Food	Price
Fritters	\$1.7
Cuban Burger	\$8
Mofongo	\$4.9
Coffee	\$2

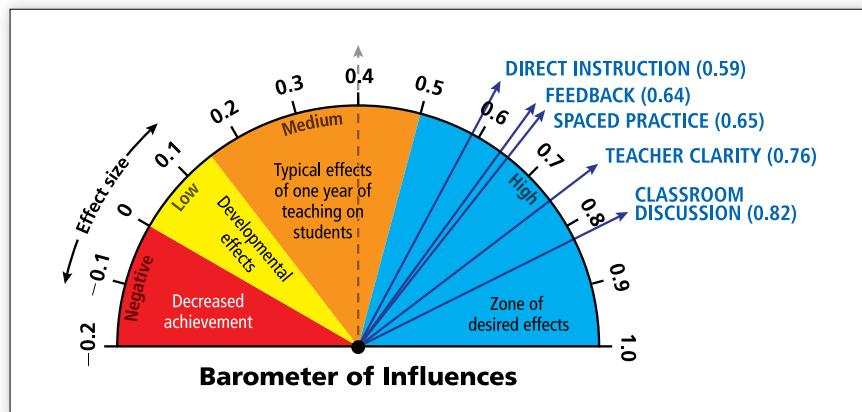
- You split the price of the fritters equally among you and your friends. What is the total price you pay for your meal and the fritters?
- Your friend suggests asking for one check split evenly three ways. Which friend do you think made this suggestion? Do you agree or disagree? Explain.



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Five Highest-Impact Teaching Strategies

Florida's B.E.S.T. Standards for MATH incorporates the highest-impact teaching strategies from Professor John Hattie's *Visible Learning* research. Reinforced throughout the program, these five strategies are proven to have the greatest impact on student achievement, giving all Florida students the opportunity to be successful.



Teacher Clarity

Learning Targets and **Success Criteria** are incorporated into every chapter and lesson and reflect the Florida B.E.S.T. Standards for Mathematics, allowing teachers to clearly communicate learning expectations.

4.2 **Graphing Ratio Relationships**

Learning Target: Represent ratio relationships in a coordinate plane.

Success Criteria:

- I can create and plot ordered pairs from a ratio relationship.
- I can create graphs to solve ratio problems.
- I can create graphs to compare ratios.

Feedback

Providing students with timely and relevant feedback is crucial for students to make connections and further their understanding. Throughout the program, students can self-assess to determine what they are learning, where they are in their learning, where they are in the learning, and where they are going next.

Where Are We In Our Learning?

- You should have a sense of how well students can interpret each rectangular part in a tape diagram. Do they see the tape diagram as a model of a ratio or as fixed lengths? Ask probing questions to help students assess their own understanding.

- EMERGING:** Students might have followed the reasoning used for each part of the exploration, yet they may not be ready to work independently. Working through Examples 1 and 2, either independently or with guided instruction, will help students become proficient with the first three success criteria.

- PROFICIENT:** Students may feel confident. The Try It exercises will help students assess their understanding. Interpreting the language of the problem and finding the missing quantity can be challenging.

Classroom Discussion

As outlined in MTR 4.1, when students can discuss purposeful questions, they hone their ability to mathematically communicate, construct arguments, and justify conclusions. **Turn and Talk**, found in **Laurie's Notes**, allows students to frequently analyze each other's mathematical thinking.

- **Turn and Talk:** Have students compare answers with their neighbors and review each other's work to find reasons for any disagreements. Error analysis allows students to defend their answers, view various strategies, and deepen their learning experience.

Direct Instruction

A hallmark of *Florida's B.E.S.T. Standards for MATH* is its explicit instructional guidance and carefully designed examples that follow exploration and help students build procedural fluency.

Key Ideas

Rates and Unit Rates

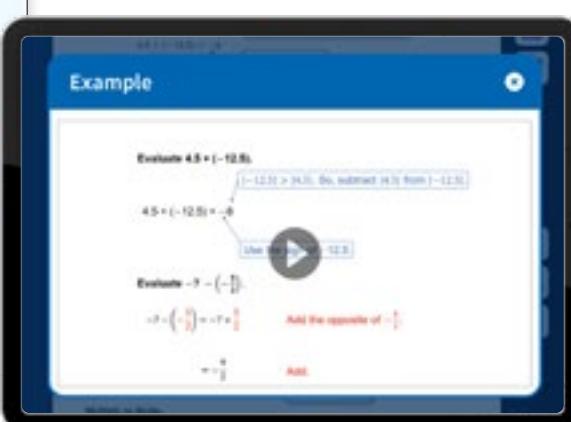
Words A **rate** is a ratio of two quantities using different units. A **unit rate** compares a quantity to one unit of another quantity. **Equivalent rates** have the same unit rate.

Numbers You pay \$350 for every $\frac{1}{4}$ ounce of gold.

\$350	\$350	\$350	\$350
$\frac{1}{4}$ oz	$\frac{1}{4}$ oz	$\frac{1}{4}$ oz	$\frac{1}{4}$ oz

Rate: $\$350 : \frac{1}{4}$ oz
Unit Rate: \$1400 : 1 oz

Algebra Rate: a units : b units Unit rate: $\frac{a}{b}$ units : 1 unit



7.4 Practice with ClickCheck™ and ClickView™

Review & Refresh

Simplify the expression. Write your answer as a power.

1. $\frac{10^6}{10^3}$

2. $\frac{x^5}{x^3}$

3. $\frac{(-3)^6 \cdot (-3)^3}{(-3)^9}$

Tell whether the triangles are similar. Explain.

6. Make a line graph of the data.

Day, x	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Hours of Sleep, y	9.2	7.8	8.3	5.5	8.0	7.4	8.9

Spaced Practice

Students must revisit concepts over time so deeper learning occurs. The **Review & Refresh** exercises in every lesson and at the end of every chapter provide ongoing practice so students continue to build fluency.

► Visit NGL.Cengage.com/Florida to learn more.

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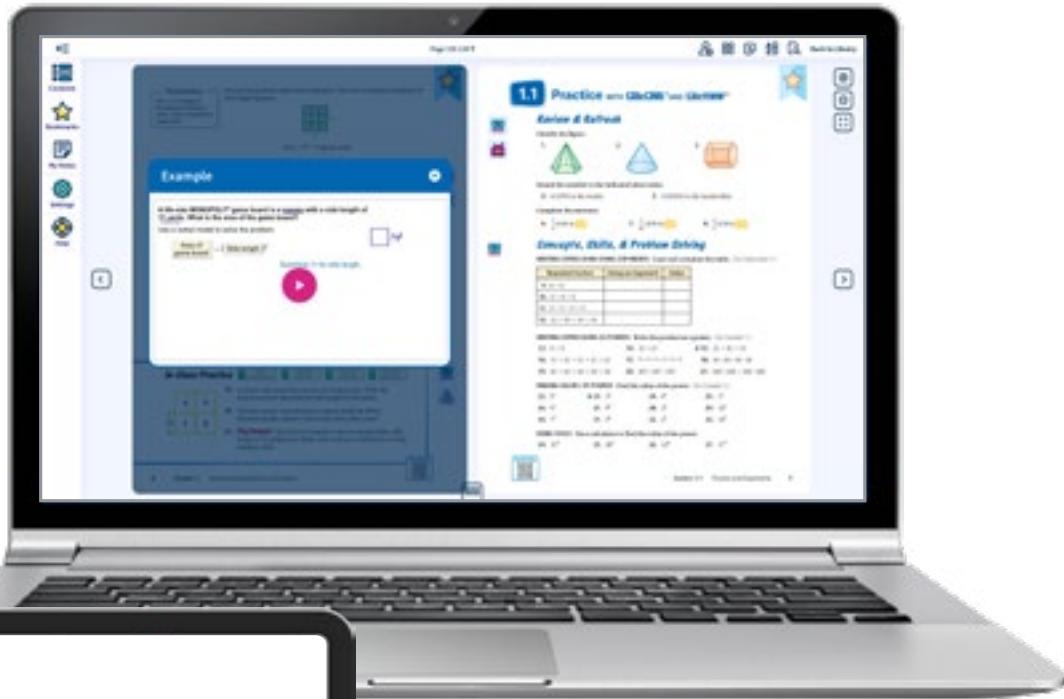
Middle School Math

Flexible Resources Accessible Anywhere

Engaging technology for students and teachers is the heart of the *Florida's B.E.S.T. Standards for MATH* program. The flexible online platform includes homework and assessment, interactive resources, and videos that support any learning environment. Here are just a few highlighted features of this robust digital platform.

Dynamic Student Edition

The **Dynamic Student Edition** is a complete, interactive version of the Student Edition with a **Multi-Language Glossary**, interactive explorations, digital examples, virtual manipulatives, **Extra Example Videos**, and digital exercises.



Assignment Builder

The **Assignment Builder** gives teachers the flexibility to create digital assignments and assessments that match the print resources or develop their own questions. Teachers can select questions by B.E.S.T. benchmarks. The parity between the print and the **Dynamic Student Edition** and the **Assignment Builder** ensures teachers can provide equitable access to course content for all students. The embedded tools in the assignments provide students with optional support so that all students can be successful.

Learn about the *entire* Digital Learning Platform!

- Complete Program Access
- Extra Support
- Rich Assessment
- Full Accessibility
- Engaging Resources
- Easy Rostering and LMS Integration



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CalcView™



CalcView

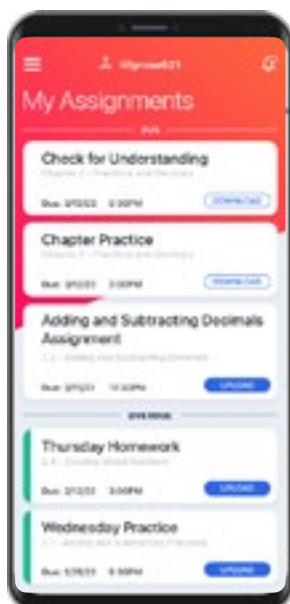
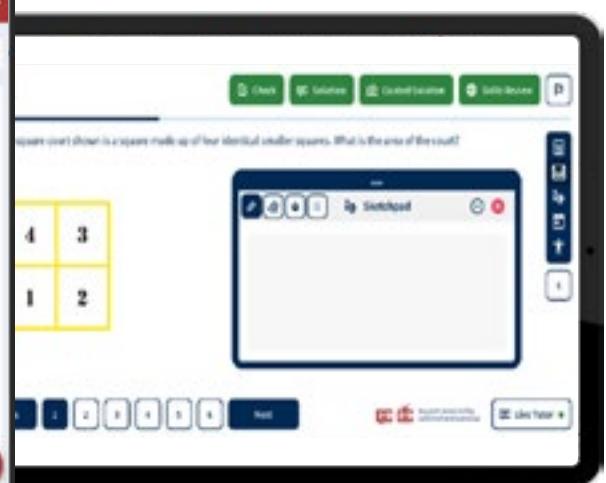
Students can view stepped-out instructor videos as they work through select problems to support comprehension and the understanding of concepts.

CalcChat

Students benefit from **Worked-out Solution Videos** and live, **Virtual Tutor** support for select exercises. **Chapter Review** and **Practice Tests** are also available.



CalcChat



Apps for Offline Learning

The **eBook App** gives students access to the Student Edition content when they need it. The Big Ideas **Homework App** allows students to complete assignments even when internet access is limited or unavailable.

Middle School Math

Support to Empower Florida Teachers

The *Florida's B.E.S.T. Standards for MATH* program provides teachers with everything they need to plan, teach, and assess to accelerate learning for all students. Written by master educator and author, Dr. Laurie Boswell, **Laurie's Notes** offer teachers point-of-use support through content overviews, motivation techniques, teaching strategies, questions to ask students for discussion, closures, and more!

Plan Efficiently

Teachers can review **Laurie's Notes** in the print **Teaching Edition** or digitally in the **Dynamic Classroom**, making it easy to plan lessons at their convenience. **Laurie's Notes** also include specific support for the **Mathematical Thinking and Reasoning Standards**, so teachers can ensure students are practicing the MTRs on a daily basis.

9.6

Laurie's Notes

- Another Method: Students may use one of the following to solve Example 3.
- Students may convert each dimension to feet first and then find the volume, but fractions make this method more difficult.
- Students may reason that because each cubic yard costs \$18 and there are 27 cubic feet per cubic yard, each cubic foot costs $\frac{2}{3}$ of a dollar. Students can then multiply the volume in cubic feet (648 ft^3) by $\frac{2}{3}$ to get $432\frac{2}{3}$ or 430.67 .

It may be helpful to sketch and label the dump truck in a horizontal position.

Maintain Accuracy

Note the use of dimensional analysis to show that the final answer has units of dollars. The answer is estimated due to rounding the cubic yards. Approximations for real-world situations are common. In real life, the truck would not be exactly full.

Make a Correction

This is a multi-step problem. It is also the first problem in this section involving decimals, but students should be able to solve just as they have with fractions and whole numbers.

Answers:

9. Sample answer: $7\frac{3}{8}\text{ ft} \times 4\frac{3}{8}\text{ ft} \times 4 = 335$
10. about 8424 lb

410 Chapter 9 Area, Surface Area, and Volume

When shoveling volumes, you may need to convert cubic units. The diagram shows that there are 27 cubic feet per cubic yard.

$$1\text{ yd}^3 = (1\text{ yd})(1\text{ yd})(1\text{ yd}) = (3\text{ ft})(3\text{ ft})(3\text{ ft}) = 27\text{ ft}^3$$

You can use a similar procedure to convert other cubic units.

Example 3 Modeling Real Life

The dump truck shown delivers dirt at \$18 per cubic yard. About how much does a full load of dirt cost? Find the volume of a full load of dirt in cubic feet.

$\begin{aligned} & V = \text{length} \times \text{width} \times \text{height} \\ & = 12\text{ ft} \times 4\frac{3}{8}\text{ ft} \times 4\frac{3}{8}\text{ ft} \\ & = 12\left(\frac{35}{8}\right)\left(\frac{35}{8}\right) \\ & = 60\text{ ft}^3 \end{aligned}$

Write formula for volume.
Substitute values.
Evaluate.

In-Class Practice

9. **Dig Deeper** Shoveling a rectangular patch of dirt takes 12 cubic feet. If the dimensions are given in feet, determine the cost for the project.

10. The back of a truck is the shape of a rectangular prism 12 ft wide, 8 ft long, and 4 ft high. How many cubic feet of dirt fit in the truck? How many cubic feet full would the truck hold? (One cubic foot holds about 16.2 pounds.)

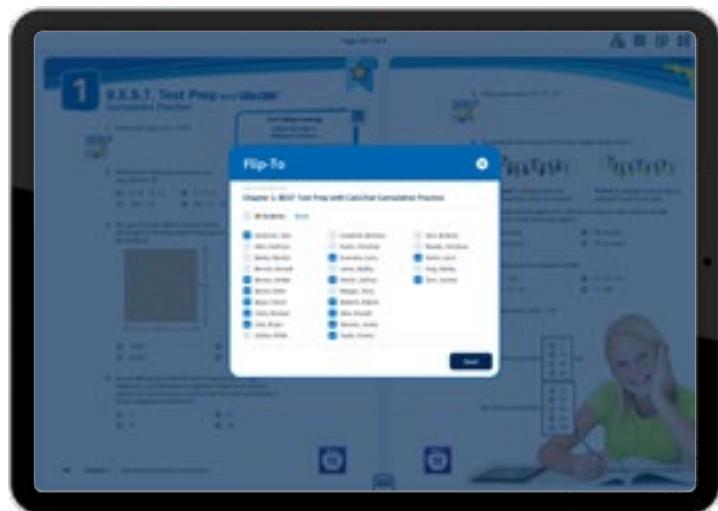
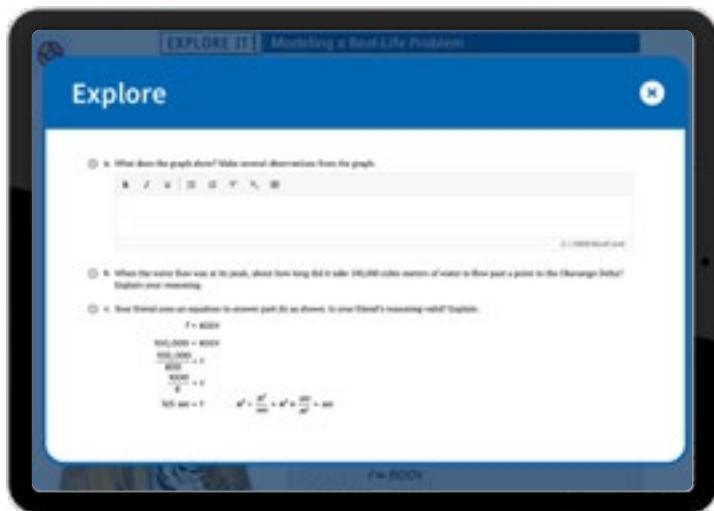
410 Chapter 9 Area, Surface Area, and Volume

Where Are We in Our Learning?
Have students assess their understanding of the concepts learned in this chapter.

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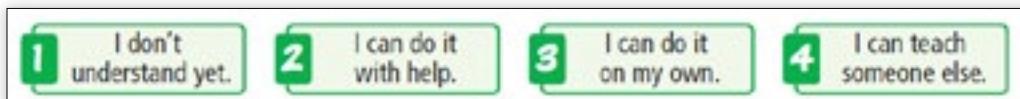
Teach Effectively

Teachers use the **Dynamic Classroom** to present lessons with engaging explorations, digital examples, and interactive practice all at their fingertips. They can even use the **Flip-To** feature to send students directly to a specific place in their **Dynamic Student Edition**.



Assess Actively

With a variety of powerful assessment tools, teachers gain insight into actionable data, making it easier to provide all students with the exact support they need to be successful.



Middle School Math

Robust Assessment for B.E.S.T. Success

The robust assessment suite allows teachers to assess students diagnostically, formatively, or summatively, in print or digitally with the **Assignment Builder**. The assessments give teachers clear insight into student progress on the B.E.S.T. Standards, helping make data-driven instructional decisions to meet the unique needs of every student and accelerate their learning.

Name _____ Date _____

Grade 7 Pre-Course Test

1. Division: $6 - 9 \cdot 2^2$.

Simplify the expression. Write your answer as a power.

2. $8^2 \cdot 8^7$ 3. $(12)^7$ 4. $\frac{1}{2}$

Find the sum or difference. Write fractions in simplest form.

5. $\frac{1}{2} + \frac{1}{3}$ 6. $-0.2 - 0.2$

7. The table shows the change in the water level (in centimeters) of a reservoir for three months. Find the total change in the water level for the three-month period.

Month	1	2	3
Change in Water Level	+2	-1	0

Assignment Report: Achievement Data

Assignment Details

Score	Assignment Status
20/22	In Progress

Performance Summary

Growth Scale:

Strand	Score	Grade	Standard
Simplifying Rational Expressions	Algebra 1-3	3	HS.A-SSE.3
Simplifying Radicals	Algebra 1-3	3	HS.A-SSE.3
Solving Rational Equations	Algebra 1-3	3	HS.A-SSE.3
Solving Exponential and Logarithmic Equations	Algebra 1-3	3	HS.A-SSE.3
Simplifying Expressions with Logarithmic Functions	Algebra 1-3	3	HS.A-SSE.3
Writing Equations with Rational Functions	Algebra 1-3	3	HS.A-SSE.3
Solving Equations with Rational Functions	Algebra 1-3	3	HS.A-SSE.3
Using Function Tables	Algebra 1-3	3	HS.A-SSE.3

Diagnostic Assessment

Teachers can diagnostically assess students at the beginning of the year using the **Prerequisite Skills Practice with Item Analysis** or use the **Pre-Course Test** as a baseline to show growth throughout the year. Then, before each chapter, teachers can use the **Getting Ready** feature to prepare students for upcoming chapter content.

Progression Benchmark Test

Customized for the Florida benchmarks, student learning can be measured across grades with the adaptive **Progression Benchmark Test**, which shows teachers where their students are in the progression of FL strands.

4.1 Formative Check

Progress to Date: 50%

Progress to Date: 30%

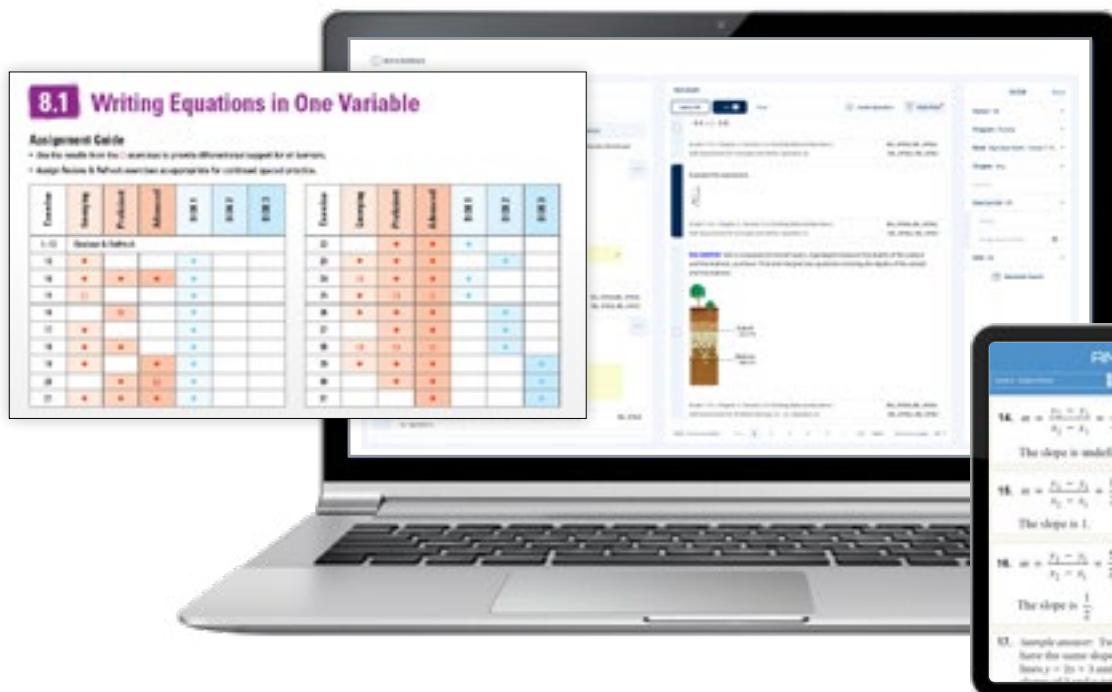
Progress to Date: 20%

Self-Assessment

Topic	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Shapes in the Coordinate Plane	Green																			
Writing Equations in Slope-Intercept Form	Green																			
Multiplication Properties	Green																			

Formative Check and Self-Assessment

Teachers can assess students using the **Formative Check** and encourage students to use the **Self-Assessment**. Both tools provide data and insight into student progress, as well as how the students see their own learning progressing as they rate themselves on the success criteria.



8.1 Writing Equations in One Variable

Assignment Guide

- Get the results from the 1 assignment to provide differentiated support for all learners.
- Assign lessons & refresh assignments for continued spaced practice.

Exercise	Standard	Probability	Average	SUM A	SUM B	SUM C
1–10	Review & Refresh					
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12						
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Assignment 1: **Writing Equations in One Variable**

Assignment 2: **Writing Equations in Two Variables**

Assignment 3: **Writing Equations in Three Variables**

Assignment 4: **Writing Equations in One Variable**

Assignment 5: **Writing Equations in Two Variables**

Assignment 6: **Writing Equations in Three Variables**

Assignment 7: **Writing Equations in One Variable**

Assignment 8: **Writing Equations in Two Variables**

Assignment 9: **Writing Equations in Three Variables**

Assignment 10: **Writing Equations in One Variable**

Assignment 11: **Writing Equations in Two Variables**

Assignment 12: **Writing Equations in Three Variables**

Assignment 13: **Writing Equations in One Variable**

Assignment 14: **Writing Equations in Two Variables**

Assignment 15: **Writing Equations in Three Variables**

Assignment 16: **Writing Equations in One Variable**

Assignment 17: **Writing Equations in Two Variables**

Assignment 18: **Writing Equations in Three Variables**

Assignment 19: **Writing Equations in One Variable**

Assignment 20: **Writing Equations in Two Variables**

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Assignment 22: **Writing Equations in One Variable**

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Assignment 24: **Writing Equations in Three Variables**

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Assignment 46: **Writing Equations in One Variable**

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Assignment 49: **Writing Equations in One Variable**

Assignment 50: **Writing Equations in Two Variables**

Assignment 51: **Writing Equations in Three Variables**

Assignment 52: **Writing Equations in One Variable**

Assignment 53: **Writing Equations in Two Variables**

Assignment 54: **Writing Equations in Three Variables**

Assignment 55: **Writing Equations in One Variable**

Assignment 56: **Writing Equations in Two Variables**

Assignment 57: **Writing Equations in Three Variables**

Assignment 58: **Writing Equations in One Variable**

Assignment 59: **Writing Equations in Two Variables**

Assignment 60: **Writing Equations in Three Variables**

Assignment 61: **Writing Equations in One Variable**

Assignment 62: **Writing Equations in Two Variables**

Assignment 63: **Writing Equations in Three Variables**

Assignment 64: **Writing Equations in One Variable**

Assignment 65: **Writing Equations in Two Variables**

Assignment 66: **Writing Equations in Three Variables**

Assignment 67: **Writing Equations in One Variable**

Assignment 68: **Writing Equations in Two Variables**

Assignment 69: **Writing Equations in Three Variables**

Assignment 70: **Writing Equations in One Variable**

Assignment 71: **Writing Equations in Two Variables**

Assignment 72: **Writing Equations in Three Variables**

Assignment 73: **Writing Equations in One Variable**

Assignment 74: **Writing Equations in Two Variables**

Assignment 75: **Writing Equations in Three Variables**

Assignment 76: **Writing Equations in One Variable**

Assignment 77: **Writing Equations in Two Variables**

Assignment 78: **Writing Equations in Three Variables**

Assignment 79: **Writing Equations in One Variable**

Assignment 80: **Writing Equations in Two Variables**

Assignment 81: **Writing Equations in Three Variables**

Assignment 82: **Writing Equations in One Variable**

Assignment 83: **Writing Equations in Two Variables**

Assignment 84: **Writing Equations in Three Variables**

Assignment 85: **Writing Equations in One Variable**

Assignment 86: **Writing Equations in Two Variables**

Assignment 87: **Writing Equations in Three Variables**

Assignment 88: **Writing Equations in One Variable**

Assignment 89: **Writing Equations in Two Variables**

Assignment 90: **Writing Equations in Three Variables**

Assignment 91: **Writing Equations in One Variable**

Assignment 92: **Writing Equations in Two Variables**

Assignment 93: **Writing Equations in Three Variables**

Assignment 94: **Writing Equations in One Variable**

Assignment 95: **Writing Equations in Two Variables**

Assignment 96: **Writing Equations in Three Variables**

Assignment 97: **Writing Equations in One Variable**

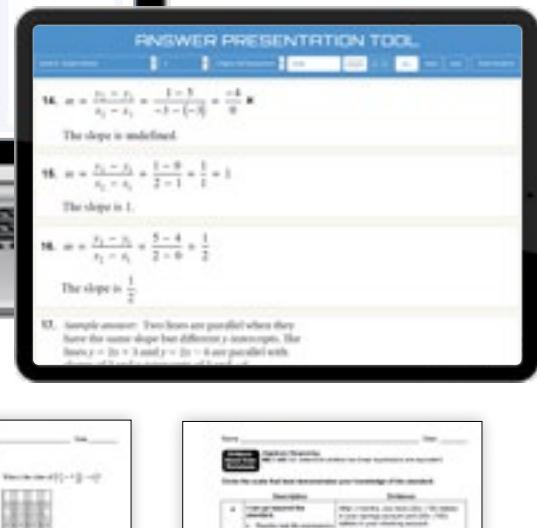
Assignment 98: **Writing Equations in Two Variables**

Assignment 99: **Writing Equations in Three Variables**

Assignment 100: **Writing Equations in One Variable**

Assignment Guide

The **Assignment Guide** allows teachers to differentiate assignments for students based on where they are in their learning. Teachers can assign in print or digitally, and then use the **Answer Presentation Tool** to review with students.



ANSWER PRESENTATION TOOL

14. $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - 7}{-3 - (-5)} = \frac{-6}{2} = -3$
The slope is undefined.

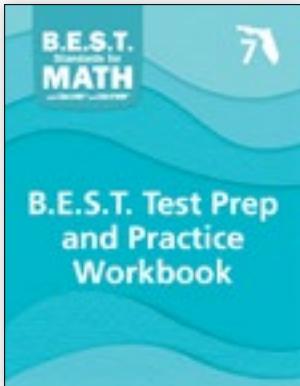
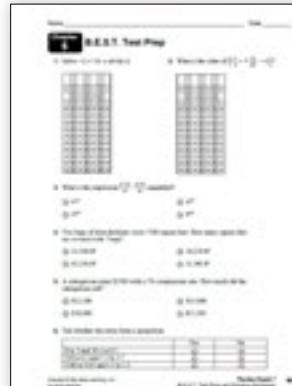
15. $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - 5}{2 - 1} = \frac{-4}{1} = -4$
The slope is 1.

16. $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 4}{2 - 0} = \frac{1}{2}$
The slope is $\frac{1}{2}$.

17. Sample answer: Two lines are parallel when they have the same slope but different y -intercepts. The lines $y = 2x + 3$ and $y = 2x - 6$ are parallel with the same slope of 2 and different y -intercepts of 3 and -6.

B.E.S.T. Test Prep and Practice Workbook

The **B.E.S.T. Test Prep and Practice Workbook** prepares students for cumulative standardized tests, in addition to helping students self-assess on the Learning Targets and Success Criteria. It also contains **Evidence-Based Scale Worksheets**, which allow teachers to assess each benchmark on a 1–4 scale and make instructional decisions.

B.E.S.T. Test Prep

1. Which of the following is equal to $2(2^2) + 2(2^2)$?

A. 16
 B. 32
 C. 48
 D. 64

2. The slope of the line shown is 1. Which of the following is the equation of the line?

A. $y = 2x + 1$
 B. $y = 2x - 1$
 C. $y = x + 2$
 D. $y = x - 2$

3. A rectangle has a width of 12 units and a height of 8 units. What is the area, in square units, of the rectangle?

A. 100
 B. 110
 C. 120
 D. 130

4. The teacher asks the class to draw a rectangle with a width of 4 units and a height of 3 units. Which of the following is a possible drawing?



B.E.S.T. Test Prep

4. Test A

1. A large store has 12 boxes of cookies and 10 boxes of cupcakes. If each box of cookies costs \$12 and each box of cupcakes costs \$15, what is the total cost of the boxes of cookies and the boxes of cupcakes?

A. \$120
 B. \$130
 C. \$140
 D. \$150

2. Response for ratio conversion by using a graph

A.

Days	Distance (miles)
1	12
2	24
3	36
4	48
5	60
6	72
7	84
8	96
9	108
10	120

B.

3. A person walks 1 mile in 2 hours. What is the person's speed in miles per hour?

A. 1 mile/hour
 B. 2 miles/hour
 C. 3 miles/hour
 D. 4 miles/hour

4. The graph shows the distance, in miles, that a driver travels in 1 hour. How many miles per hour is the driver's speed?

A. 10 miles/hour
 B. 20 miles/hour
 C. 30 miles/hour
 D. 40 miles/hour



#11

Evaluate the expression.

$8 \times 11.215 = \square$

Sketchpad

$$\begin{array}{r} 114 \\ 11.215 \\ \times 8 \\ \hline 89.720 \end{array}$$

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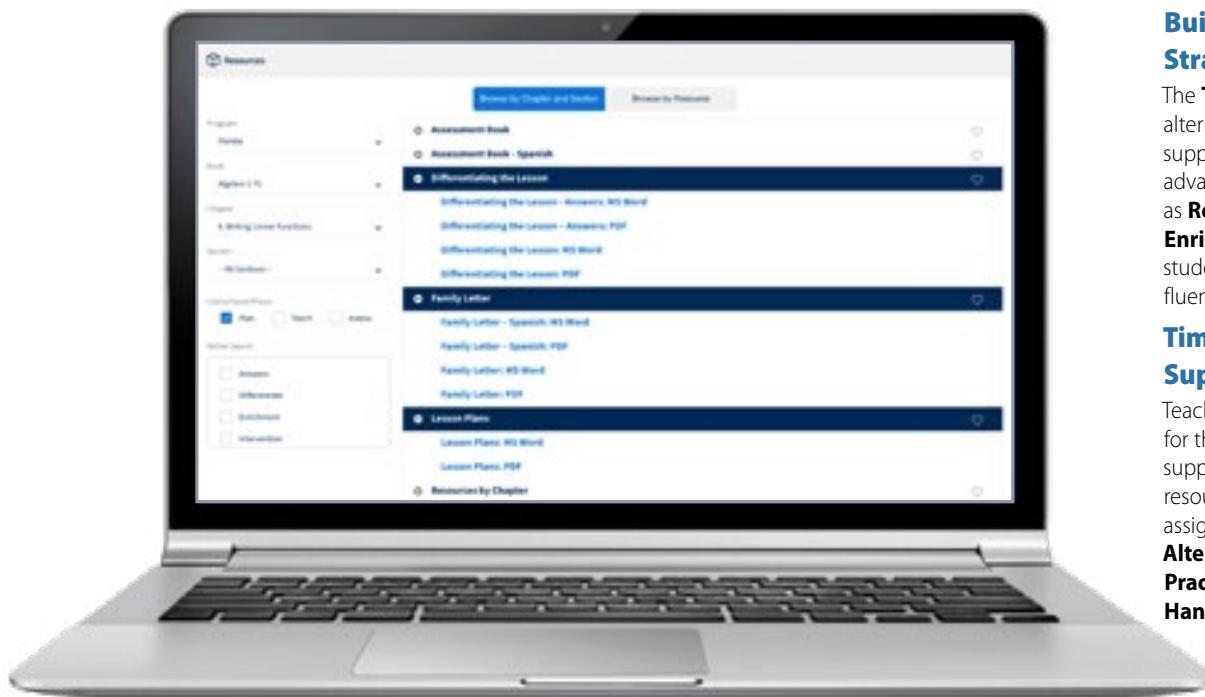
Summative Assessments

Quizzes, Tests, and Course Benchmark Tests from the **Assessment Book** assess course content, and can be assigned periodically throughout the year. These tests are customizable in print and online!

Middle School Math

Reach All Florida Learners

Florida's B.E.S.T. Standards for MATH supports Florida teachers and provides guidance on how to accommodate students' diverse learning styles and abilities. Students feel empowered to address their own gaps in knowledge and extend their understanding of key concepts.



Built-in Differentiation Strategies

The **Teaching Edition** provides alternative teaching strategies to support emerging, proficient, and advanced learners. Supports such as **Reteach**, **Extra Practice**, and **Enrichment and Extension** fortify students' understanding and fluency.

Timely Intervention Support

Teachers have access to resources for the entire K-12 program to support RTI tiers at any time. These resources are editable to customize assignments and include **Alternative Assessments**, **Extra Practice**, **Skills Review Handbook**, and more.

English Language Learner Support ELL

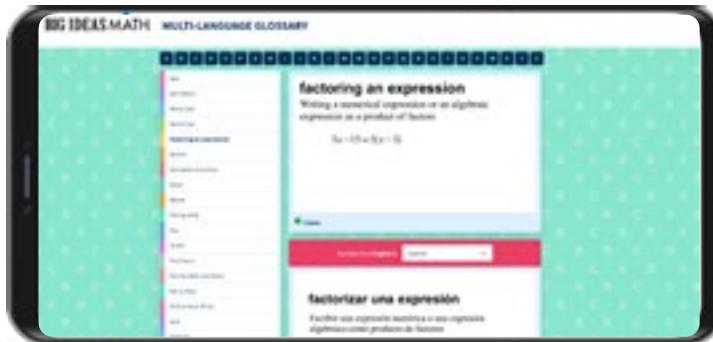
Vocabulary Review
Explain that a flat side of a prism is called a face. The meaning of *face* in mathematics is different than its meaning in everyday language. In everyday language, a face is the front of a person's head from the forehead to the chin.

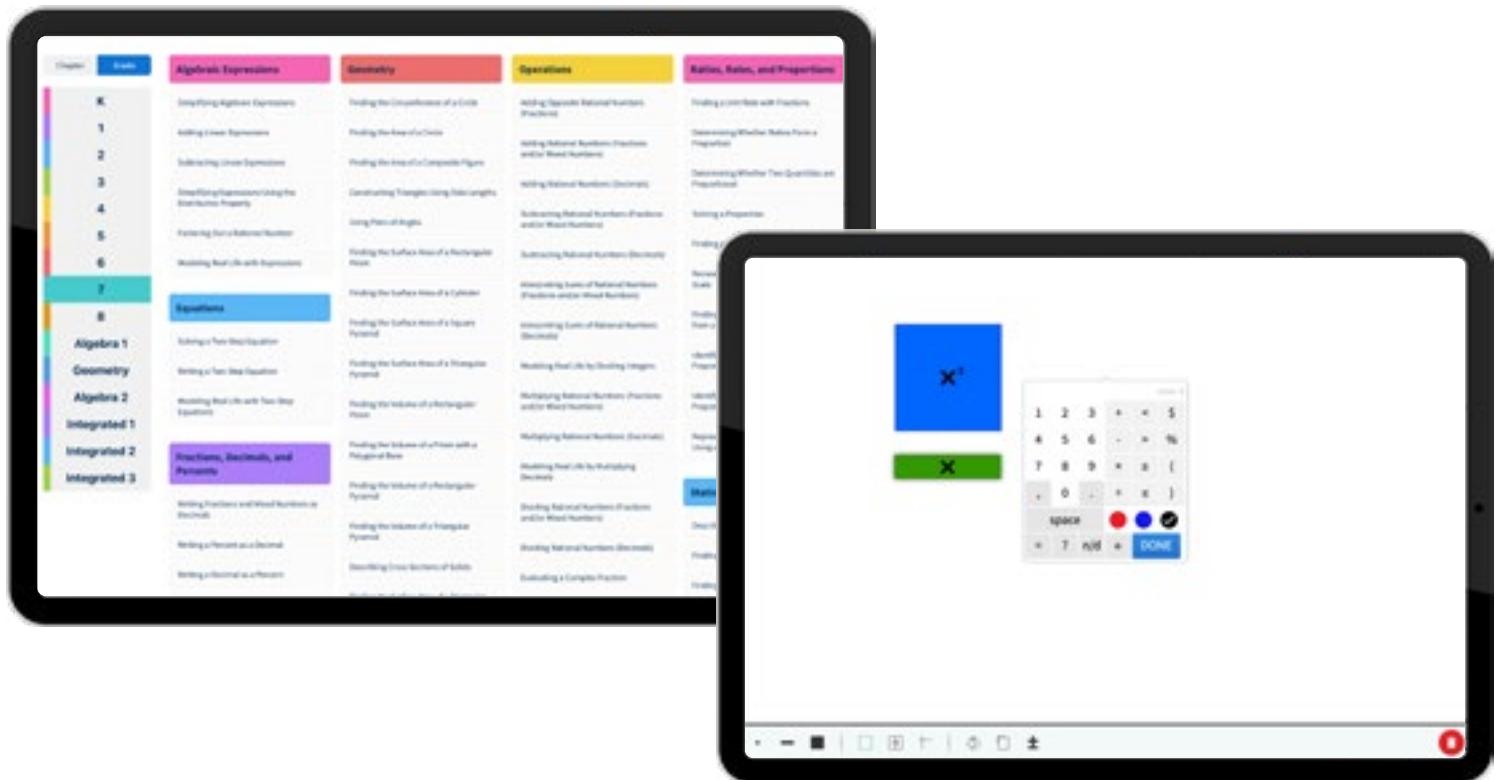
Leveled Proficiency Comprehension
Have students work in pairs to practice language as they discuss and complete Try It Exercise 5. Have one partner ask the other, "How many faces are there?" After the partner answers, have them switch roles to ask about the numbers of edges and vertices.
Beginning Level: Students may state the numbers.
Intermediate Level: Students may answer with simple sentences, such as "There are five."
Advanced Level: Students may answer with detailed sentences, such as "I counted five faces on the solid."

ELL Support and Development

Support for ELL students includes **Vocabulary Review** and **Leveled Proficiency Comprehension**. These features target Beginner, Intermediate, and Advanced ELLs, which correspond to WIDA reading, writing, speaking, and language mastery levels.

The **Multi-Language Glossary** is accessible via the **Dynamic Classroom** and supports **16 total languages** by providing translations of key vocabulary terms.





Digital Opportunities for Reinforcement and Enrichment

Florida's B.E.S.T. Standards for MATH offers a variety of digital resources for skill development, review, and enrichment. The **Skills Trainer** provides opportunities for students to review or extend skills from Grade K through Algebra 2. **Interactive Tools** such as algebra tiles, number lines, and fraction models help students make connections by visualizing key concepts.

REVIEW: Simplifying Algebraic Expressions Name: _____

Key Concept and Vocabulary

- Combine similar terms
- Simplifying expressions
- Combine numerical terms

Visual Model



Skill Examples

- $(a + b) + c = a + (b + c)$
- $2 + a + b + c = a + (2 + b + c)$
- $(a + b) - (c + d) = a + b - c - d$
- $(2x + 3y) + (3x + 2y) = 5x + 5y$

PRACTICE MAKES PURR-FECT! Check your answers at AlgebraMeow.com.

Application Example

The original cost of a chair is \$100. The chair is on sale for 30% off. Write a simplified expression for the sale price.

$$x = \$100 - \$30$$

30% OFF Be sure to include the dollar sign.

1. Simplify the expression. (Remove parentheses and combine like terms.)

- $4x + 5x - 7$
- $3x + 12 + 3x - 12$
- $5x + (3x + 4x) - 3$
- $(x + 4) - (x + 4) + 3$
- $(2x + 3) + (3x + 2) - 5$

2. Write a simplified expression for the perimeter of the rectangle or triangle.

15.  Perimeter = _____

16.  Perimeter = _____

17.  Perimeter = _____

21. The original cost of a cat-shaped piñata is \$10. The piñata is on sale for 35% off. Write a simplified expression for the sale price. _____

35% Off

Copyright © Big Ideas Learning, LLC Skills Review Topic M.L.O. 88

Skills Review for Success

The **Skills Review Handbook** provides examples and practice to review concepts from earlier grades. It can be used for remediation, enrichment, and differentiation. Available in print or digitally, students benefit from the additional opportunity for review and practice.

Middle School Math

Ensure Success for Spanish-Speaking Students

Florida's B.E.S.T. Standards for MATH offers students and teachers a blend of print and digital resources for Spanish language support.

The Spanish Student Edition, in both print and digital, is a carefully developed translation of the complete student program. In addition, a full assessment suite in Spanish ensures formative and summative assessment can be delivered effectively.

Nombre _____	Fecha _____
Capítulo 6 Prueba	
Para usar después de la Sección 6.3	
1. Escribe 19% como un decimal.	
2. Escribe el 0.05 decimal como un porcentaje.	
3. Escribe $\frac{47}{50}$ como un porcentaje.	
4. ¿Qué porcentaje es 95 de 76?	

English Language Learner Support

Vocabulary Review

Students may know the word *expression* from everyday language. It can be used to describe the look on a person's face or the words used to communicate something. Explain that in the context of math, an algebraic expression is a mathematical phrase containing numbers, operations, and/or variables.

Leveled Proficiency Comprehension

After demonstrating Example 1, have students practice language by working in pairs to complete Try It Ejercicios 1–3. Have one student ask another, "What are the terms in the expression? the like terms?" Have students alternate roles.

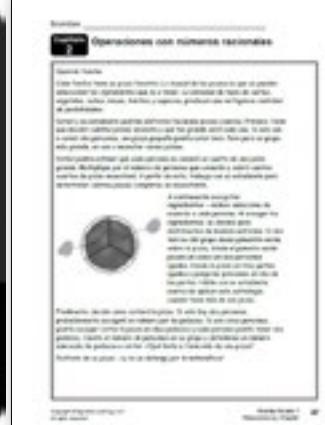
Beginning Level: Students may name the terms.

Intermediate Level: Students may use phrases or simple sentences to identify the terms and like terms.

Advanced Level: Students may answer with detailed sentences, such as "The terms are y , 10 , and $-\frac{3}{2}y$. The like terms are y and $-\frac{3}{2}y$."

Teaching Edition

Built-in support through **Laurie's Notes** in the **Teaching Edition** provides teaching strategies for ELL students, including Spanish speakers.



What is the actual distance d between Miami and Key West?

Step 1: Use a centimeter ruler to find the distance on the map between Miami and Key West.
The map distance is about 2.5 centimeters.

Step 2: Use the scale 1 cm : 50 mi and the ratio $2.5 \text{ cm} : d \text{ mi}$ to write and solve a proportion.

$$\frac{1}{50} = \frac{2.5}{d}$$

map distance (cm) actual distance (mi)

$d = 50 \times 2.5$ Cross Products Property
 $d = 125$ Multiply.



Digital Language Support

Spanish audio is also available in the **Dynamic Classroom** to enhance **Digital Examples**, **Extra Example Videos**, practice, assessments, and more.

View this video in Spanish

B.E.S.T. Program Resources

Florida's B.E.S.T. Standards for MATH ensures that students and teachers have access to all materials on a single digital platform or in easily accessible print resources.

Print Student Resources

(Also available Digitally)

Student Edition*

B.E.S.T. Test Prep and Practice Workbook

- Review & Refresh*
- B.E.S.T. Test Prep*
- Self-Assessment*
- Chapter Self-Assessment*
- Post-Course Test*
- Evidence-Based Scale Worksheets*

Digital Student Resources

Dynamic Student Edition

- Interactive Tools
- Interactive Explorations
- Digital Examples
- Extra Example Videos
- Self-Assessments

Additional Resources

- Vocabulary Flashcards*
- Graphic Organizers
- Math Tool Paper

Skills Trainer

Skills Review Handbook

Game Library*

Multi-Language Glossary*

STEAM Videos

eBook App

Homework App

CalcChat and CalcView

Print Teacher Resources

(Also available Digitally)

Teaching Edition

Resources by Chapter

- Family Letter*
- Warm-Ups
- Extra Practice
- Reteach
- Enrichment and Extension
- Chapter Self-Assessment
- Puzzle Time

Assessment Book

- Prerequisite Skills Practice*
- Pre- and Post-Course Tests*
- Course Benchmark Tests*
- Quizzes*
- Chapter Tests*
- Alternative Assessments*
- Performance Tasks*

Digital Teacher Resources

Dynamic Classroom

- Laurie's Notes
- Interactive Tools
- Interactive Explorations
- Digital Examples with PowerPoints
- Formative Check
- Self-Assessment
- Flip-To
- Digital Warm-Ups and Closures
- Mini-Assessments

Dynamic Assessment System

- Practice
- Assessments
- Progression Benchmark Tests
- Performance and Standard Reports

Answer Presentation Tool

- Additional Resources
- Cross-Curricular Projects
- Lesson Plans
- Pacing Guides
- Differentiating the Lesson
- Worked-Out Solutions Key
- Family Letters*

Video Support for Teachers

- Everyday Connections Videos
- Professional Development Videos
- Concepts and Tools Videos

*Available online in Spanish



FLORIDA

Coherent Progressions for Florida from Grades K-12

Florida's B.E.S.T. Standards for MATH is completely aligned with the Florida B.E.S.T. standards and provides students and teachers with meaningful coherence from Kindergarten through Algebra 2. Both print and digital resources are designed to support all Florida learners and encourage students to become strategic thinkers and problem solvers.

A complete program for every curriculum pathway in Florida!

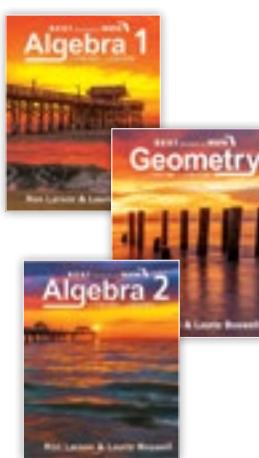
**Florida Math for
Grades K-5**



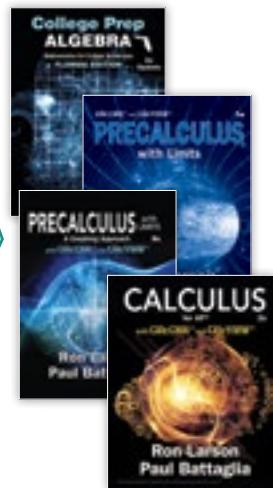
**Florida Math for
Grades 6-8**



**Florida Math for
Algebra 1, Geometry, Algebra 2**

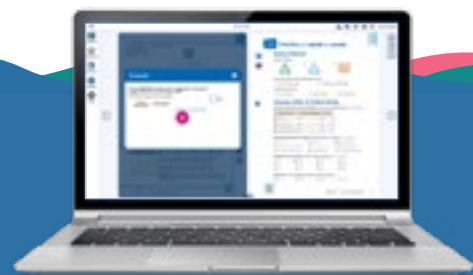


**Florida Math for College Algebra,
Precalculus, AP® Calculus**



Reviewing the program?

Go to BigIdeasLearning.com/FloridaReview



**For Blended, Print, or
Digital Delivery!**