

Grades 1–8



## CONTENTS

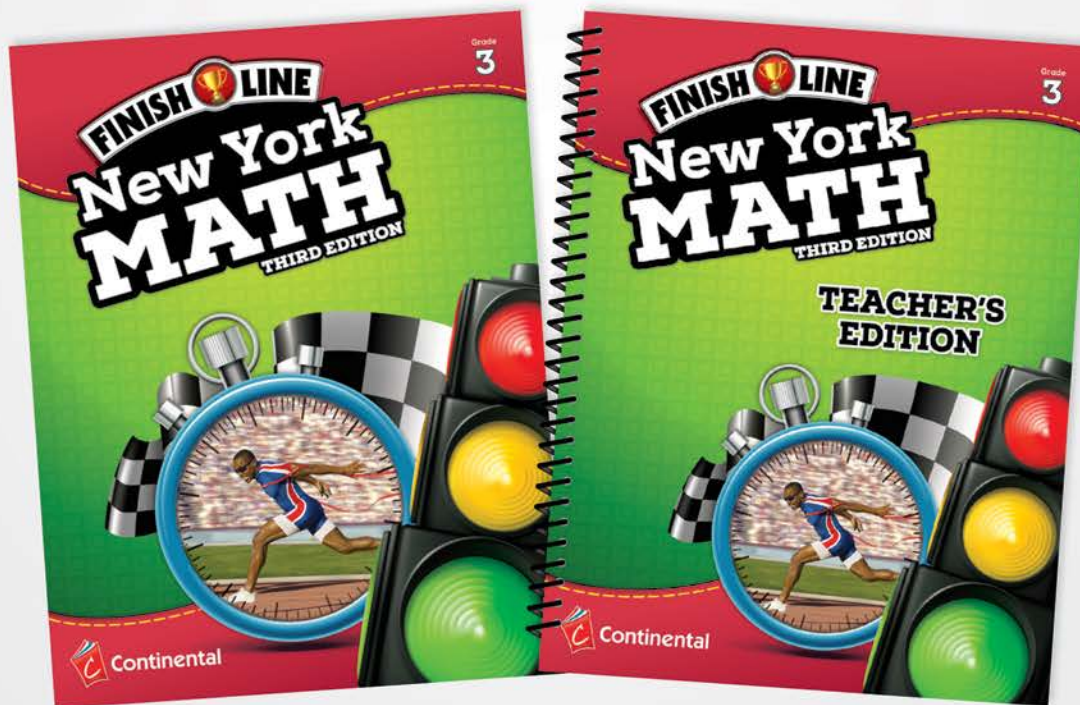
Overview .....	2
Student Book .....	4
Teacher's Edition .....	11
eBook .....	12
Pricing .....	14



**Continental**  
inspire every learner

## What does this series do?

*Finish Line New York Math, Third Edition* gives students comprehensive instruction and practice to build understanding of New York's Mathematics Common Core Learning Standards (CCLS). To help you apply the CCLS to today's Next Generation, New York Next Generation Learning Standards Crosswalks are available on our website. Components include student workbooks and annotated teacher's editions in print and eBook formats.



# Standards Connection

Units parallel the domains of the Common Core Learning Standards (CCLS). New York CCLS/Next Generation Standards Crosswalks are available on our website.

300+ pages of instruction and practice

## TABLE OF CONTENTS

About Finish Line New York Math	5
<b>UNIT 1: Big Ideas from Grade 2</b>	<b>7</b>
LESSON 1 2.NBT.5, 7 Adding Two- and Three-Digit Numbers [connects to 3.NBT.2]	8
LESSON 2 2.NBT.5, 7 Subtracting Two- and Three-Digit Numbers [connects to 3.NBT.2]	15
LESSON 3 2.MD.1 Measuring Length [connects to 3.MD.4]	23
LESSON 4 2.G.2 Tiling Rectangles [connects to 3.MD.7.a, d]	29
LESSON 5 2.G.1 Polygons [connects to 3.G.1]	37
<b>UNIT 1 REVIEW</b>	<b>44</b>
<b>UNIT 2: Operations and Algebraic Thinking, Part 1</b>	<b>51</b>
LESSON 6 3.OA.1 Understanding Multiplication	52
LESSON 7 3.OA.5 Properties of Multiplication	59
LESSON 8 3.OA.2 Understanding Division	66
LESSON 9 3.OA.6 Connecting Multiplication and Division	73
LESSON 10 3.OA.4, 7 Multiplication Facts	79
LESSON 11 3.OA.4, 7 Division Facts	86
LESSON 12 3.OA.9 Patterns	92
<b>UNIT 2 REVIEW</b>	<b>99</b>
<b>UNIT 3: Number and Operations in Base Ten</b>	<b>105</b>
LESSON 13 3.NBT.1 Rounding Whole Numbers	106
LESSON 14 3.NBT.2 Adding Whole Numbers	113
LESSON 15 3.NBT.2 Subtracting Whole Numbers	120
LESSON 16 3.NBT.3 Multiplying by Multiples of Ten	127
<b>UNIT 3 REVIEW</b>	<b>133</b>
<b>UNIT 4: Operations and Algebraic Thinking, Part 2</b>	<b>138</b>
LESSON 17 3.OA.3 One-Step Word Problems with Multiplication and Division	139
LESSON 18 3.OA.8 Two-Step Word Problems	146
<b>UNIT 4 REVIEW</b>	<b>155</b>

<b>UNIT 5: Number and Operations—Fractions</b>	<b>160</b>
LESSON 19 3.NF.1 Understanding Fractions	161
LESSON 20 3.NF.2.a, b Fractions on a Number Line	168
LESSON 21 3.NF.3.a, b, c Equivalent Fractions	175
LESSON 22 3.NF.3.d Comparing Fractions	182
<b>UNIT 5 REVIEW</b>	<b>189</b>
<b>UNIT 6: Measurement and Data</b>	<b>195</b>
LESSON 23 3.MD.1 Time	196
LESSON 24 3.MD.1 Solving Problems with Time	203
LESSON 25 3.MD.2 Liquid Volume	210
LESSON 26 3.MD.2 Mass	217
LESSON 27 3.MD.3 Picture Graphs	224
LESSON 28 3.MD.3 Bar Graphs	232
LESSON 29 3.MD.4 Measurement Data on Line Plots	241
LESSON 30 3.MD.5.a, b, 6 Understanding Area	249
LESSON 31 3.MD.7.a, b Multiplying to Find Area	256
LESSON 32 3.MD.7.c, d Adding to Find Area	263
LESSON 33 3.MD.8 Perimeter and Area	271
<b>UNIT 6 REVIEW</b>	<b>279</b>
<b>UNIT 7: Geometry</b>	<b>287</b>
LESSON 34 3.G.1 Plane Figures and Polygons	288
LESSON 35 3.G.1 Quadrilaterals	295
LESSON 36 3.G.2 Partitioning Shapes	302
<b>UNIT 7 REVIEW</b>	<b>309</b>
Glossary	314
Flash Cards	321



## Get Ready to Learn

The first unit reviews big ideas from the previous grade with four-to-five topics that are key to new concepts in the current grade. This allows students to refresh their skills in these areas before building on them to learn new ideas.

### UNIT 1 Big Ideas from Grade 2

In grade 2, you learned how to compare numbers. You also solved word problems, measured length, and recognized shapes. Now you can use what you know about numbers and shapes to work with two- and three-digit numbers, measure objects, and understand polygons.

**LESSON 1 Adding Two- and Three-Digit Numbers** In this lesson, you will add numbers with two or three digits.

**LESSON 2 Subtracting Two- and Three-Digit Numbers** In this lesson, you will subtract numbers with two or three digits, using regrouping when necessary.

**LESSON 3 Measuring Length** In this lesson, you will measure or estimate length using different measuring instruments and units, such as inches, feet, or yards.

**LESSON 4 Tiling Rectangles** In this lesson, you will use tiling to find the area of rectangles.

**LESSON 5 Polygons** In this lesson, you will identify different types of polygons and practice drawing these shapes.

### LESSON 1 Adding Two- and Three-Digit Numbers

CCLS: 2.NBT.5, 7

#### 1 Introduction

To **add** means to combine to find a total. You can add in different ways. One way is to use place value.

A worker is stacking boxes. He has stacked 23 boxes. He needs to add 14 more boxes. How many will he stack in all?

Use place-value blocks to show 23.



Use place-value blocks to show 14.



Then combine the blocks. There are 3 tens blocks and 7 ones blocks. There is 37 in all.



You can stack numbers to add them. Line up the numbers by place value. Add the ones, then the tens. Then add the hundreds.

Tens	Hundreds	Ones
2	0	3
1	0	4
+ 246		
7	5	9

Sometimes the digits in one place value are more than 10. In this case, you would regroup.

### LESSON 3 Measuring Length

CCLS: 2.MD.1

#### 1 Introduction

CCLS: 2.NBT.5, 7

...rt length,  
...ball field.  
...e same  
...h are inches  
...system of



$$\begin{array}{r} 5 \\ - 3 \\ \hline 2 \end{array}$$

Difference

Addition and subtraction are inverse operations. That means they are opposites. Use addition to check subtraction.

in this  
r than a

measure  
zero-end of  
bject.

Longer lengths are measured with yardsticks, meter sticks, and measuring tapes.

## Gradual Release Model

## Part #1: Introduction

Each lesson begins with a brief explanation of the focus skill or concept with examples to illustrate. An open-ended *Think About It* question requires students to use critical thinking to work through an answer.

Vocabulary

LESSON  
**14**

### Adding Whole Numbers

CCLS: 3.NBT.2

**1 Introduction**

When you **add**, you join at least two numbers. Adding gives you a total that is **more** than the numbers that you join together. The numbers you are adding are called **addends**. The result is called the **sum**. The order you add the numbers does not matter. The sum will remain the same.

Sometimes when you add, you need to **regroup**. You must regroup when the sum of a place is 10 or more. You always regroup numbers as the next place value to the left. So, you regroup 10 ones as 1 ten or 10 tens as 1 hundred. Use **place value** to help you regroup.

Add.

$$\begin{array}{r} 24 \\ +47 \\ \hline \end{array}$$

Add the ones.  
Regroup 10 ones as ten.  
Then, add the tens.

24

+47

71

The sum of 24 + 47 is 71.

**Think About It**

Marcus wants to add  $174 + 248$ . Will Marcus have to regroup at all while adding? If so, in which places will he have to regroup? Explain how you know when you need to regroup when adding.

LESSON  
**36**

### Partitioning Shapes

CCLS: 3.G.2

**1 Introduction**

When you divide a shape into equal parts, you **partition** it. The **area** of each part is a **unit fraction** of the whole shape.

This rectangle is divided into 2 equal parts. Each part is 1 part out of a total of 2 parts.

A fraction with 1 for the numerator is called a unit fraction.

1 ← Number of parts being described  
2 ← Number of equal parts

That means each part is one half, or  $\frac{1}{2}$ , of the area of the whole shape.

The top number in a fraction is the **numerator**. The bottom number is the **denominator**.

To use unit fractions to describe the area, the parts must be the same size.

Each part of this circle is  $\frac{1}{4}$  of the area of the total circle.

This circle does not have parts that are the same size. So one part is not  $\frac{1}{4}$  of the area of the entire circle.

**Think About It**

Describe something at home that you might partition. Consider ways you might partition food, closets, or rooms.

## Gradual Release Model

## Part #2: Focused Instruction

Students are guided through two or more practice problems. Each problem includes a series of questions to help them work through the right answer. This practice helps build the skills needed to understand the main idea of the lesson. Focused Instruction is ideal for collaborative learning.

Hints and reminders

**Lesson 14**

**2 Focused Instruction**

Add to find the total. Use the place-value chart to help you.

► Noah wants to know the total number of fans at the soccer game Friday and Saturday nights. Friday night, there were 276 fans, and Saturday night, there were 358 fans. How many fans were at both soccer games?

276 +358	<table border="1"> <tr> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> </tr> <tr> <td>2</td> <td>7</td> <td>6</td> </tr> <tr> <td>+ 3</td> <td>5</td> <td>8</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table>	Hundreds	Tens	Ones	2	7	6	+ 3	5	8	_____	_____	_____
Hundreds	Tens	Ones											
2	7	6											
+ 3	5	8											
_____	_____	_____											

Add the ones. \_\_\_\_\_

Do you need to regroup the ones? \_\_\_\_\_

If so, how will you regroup? Complete the sentence below.

Regroup \_\_\_\_\_ ones into \_\_\_\_\_ ten(s) and \_\_\_\_\_ one(s).

Write the correct digits in the ones place and above the tens place.

Now add the tens. \_\_\_\_\_

Do you need to regroup the tens? \_\_\_\_\_

If so, how will you regroup? Complete the sentence below.

Regroup \_\_\_\_\_ tens into \_\_\_\_\_ hundred(s) and \_\_\_\_\_ ten(s).

Write the correct digits in the tens place and above the hundreds place.

Now add the hundreds. \_\_\_\_\_

Do you need to regroup the hundreds? \_\_\_\_\_

How many fans were at Friday and Saturday's soccer games? \_\_\_\_\_

Would your answer change if there were 358 fans on Friday and 276 fans on Saturday or why not.


**Regroup when you have more than 10 in a place.**

**Lesson 35**

**2 Focused Instruction**

Shapes are not always partitioned into squares. An octagon can be partitioned into triangles.

► Look at the octagon below.



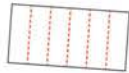
Draw lines to make 8 equal parts in the octagon.


Fill in the fraction to show the area of one part of the octagon.

<input type="text"/>	← Each part
<input type="text"/>	← Total parts

What unit fraction describes the area of each part of the octagon? \_\_\_\_\_

Use what you know about partitioning figures to write a fraction to describe the area of each part of these figures.

1 

2 

**Think of each side as the bottom of a triangle.**

## Gradual Release Model

### Part #3: Guided Practice

It's time to apply the strategies learned in part #2. In this section, open-ended problems require students to show their work, make a graph, draw a diagram, or do other mathematical tasks to answer questions.

Hints and reminders

Lesson 14

### 3 Guided Practice

Solve the following problems.

1 Sheila added  $494 + 208$ . Her work and the sum she found are shown below.

$$\begin{array}{r} 494 \\ +208 \\ \hline 602 \end{array}$$

Remember to regroup when you have more than 10 ones or tens.

**Part A** What mistake did Sheila make?

---

**Part B** Find the correct sum. Show your work.

Answer \_\_\_\_\_

2 Add  $483 + 377$ . Show your work.

Sometimes you need to regroup more than once.

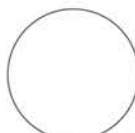
Answer \_\_\_\_\_

Lesson 36

### 3 Guided Practice


Solve the following problems.

1 Partition the circle so each part is  $\frac{1}{2}$  of the area of the entire circle.



Remember that there can be more than one way to partition a figure.

2 Partition the square below so that each part has an area that is  $\frac{1}{8}$  of the area of the whole square.



If each section is  $\frac{1}{8}$  of the total area, how many sections are there?

## Gradual Release Model


### Part #4: Independent Practice

Students are ready to answer questions on their own without any help or hints. They will answer multiple-choice and open-ended questions and:

- Perform computations
- Plot points on a coordinate plane
- Answer questions with more than one right answer
- Complete a table
- Measure or draw a figure

**4 Independent Practice** Lesson 14

7 Tia used place-value blocks to solve  $409 + 298$ .



**Part A** Is Tia's model correct? Explain why or why not.

---



---




---

**Part B** If Tia's model is not correct, draw place-value blocks to model the correct answer. If it is correct, write correct below.

**4 Independent Practice** Lesson 14







Solve the following problems.

1 What unit fraction describes the area of each part of the circle?



A  $\frac{1}{4}$   
 B  $\frac{1}{2}$   
 C  $\frac{1}{8}$   
 D  $\frac{1}{6}$

2 Which square is divided into parts that are  $\frac{1}{6}$  of the area of the whole square? Select the **two** correct answers.

A   
 B   
 C   
 D   
 E   
 F 

306 UNIT 7 Geometry



## Reviews

Each unit concludes with a review to test all skills covered in the unit.

**UNIT 4 REVIEW**  
**Operations and Algebraic Thinking, Part 2**

CCLS: 3.OA.3, 8

Solve the following problems.

- Inez hung 20 paintings. She put them in 5 rows. Write a multiplication equation to show how many paintings Inez hung in each row. Use  $n$  for the unknown.  
 Answer \_\_\_\_\_
- A baseball team has 9 players. King School has 36 baseball players. How many teams are there? Use this equation to solve the problem:  
 $36 \div p = 9$ .  
 Answer \_\_\_\_\_ teams
- Manuel placed 28 bottles on a store's shelves. He put an equal number on each of 4 shelves. How many bottles are on each shelf? Use this equation to solve the problem:  $4 \times c = 28$ .  
 A 4  
 B 7  
 C 20  
 D 24
- Juanita is 10 years old. Her father is 4 times older than her. When Juanita is 30, how old will her father be? Explain how you got your answer.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_


**UNIT 4 REVIEW Operations and Algebraic Thinking, Part 2 155**

© The Continental Press, Inc. DUPLICATING THIS MATERIAL IS ILLEGAL.

- Tony received a gift card worth \$25. He bought a book for \$8. He bought another book for \$11. Write an equation to show how much money Tony had left. Use  $n$  for the unknown.  
 Answer \_\_\_\_\_
- A pet store puts 8 white mice in each cage. There are a total of 40 mice. Which equations can be used to find  $c$ , the number of cages of mice? Select the **three** correct answers.  
 A  $8 \times c = 40$   
 B  $8 + 8 + 8 + 8 + c = 40$   
 C  $40 \div c = 8$   
 D  $40 - c = 8$   
 E  $c + 8 = 40$   
 F  $40 \div 8 = c$
- A baker wants to bake 60 cookies. He can fit 12 cookies on each baking pan.  
**Part A** Write a multiplication equation and a division equation that could each be used to find out how many trays the baker needs. Use  $t$  for the unknown.  
 Multiplication Equation \_\_\_\_\_  
 Division Equation \_\_\_\_\_  
**Part B** Solve one of your equations from Part A for  $t$ .  
 Answer \_\_\_\_\_ trays

**156 UNIT 4 REVIEW Operations and Algebraic Thinking, Part 2**

- Shen planted tomato plants in his garden. This array shows how they are planted.



**Part A** Write and solve an equation to show how many tomato plants Shen planted.  
 Answer \_\_\_\_\_

**Part B** Next year, Shen plans to plant twice as many tomato plants as he did this year. He will plant them at different times so he will have tomatoes all summer. He will plant some in May, some in June, and some in July. He will plant the same number each month. Write and solve an equation to show how many tomato plants Shen will plant each month.  
 Answer \_\_\_\_\_

**157 UNIT 4 REVIEW Operations and Algebraic Thinking, Part 2**

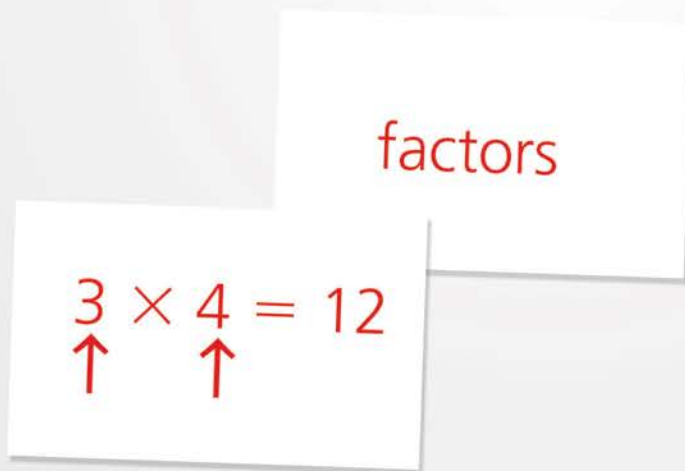
# Resources

## Glossary

A glossary includes words and terms that appear in boldface throughout the book, along with their definitions.

## Flashcards

Students can cut out the flashcards to practice important ideas, formulas, and symbols from the book. They can make their own using the blank cards provided.



## GLOSSARY

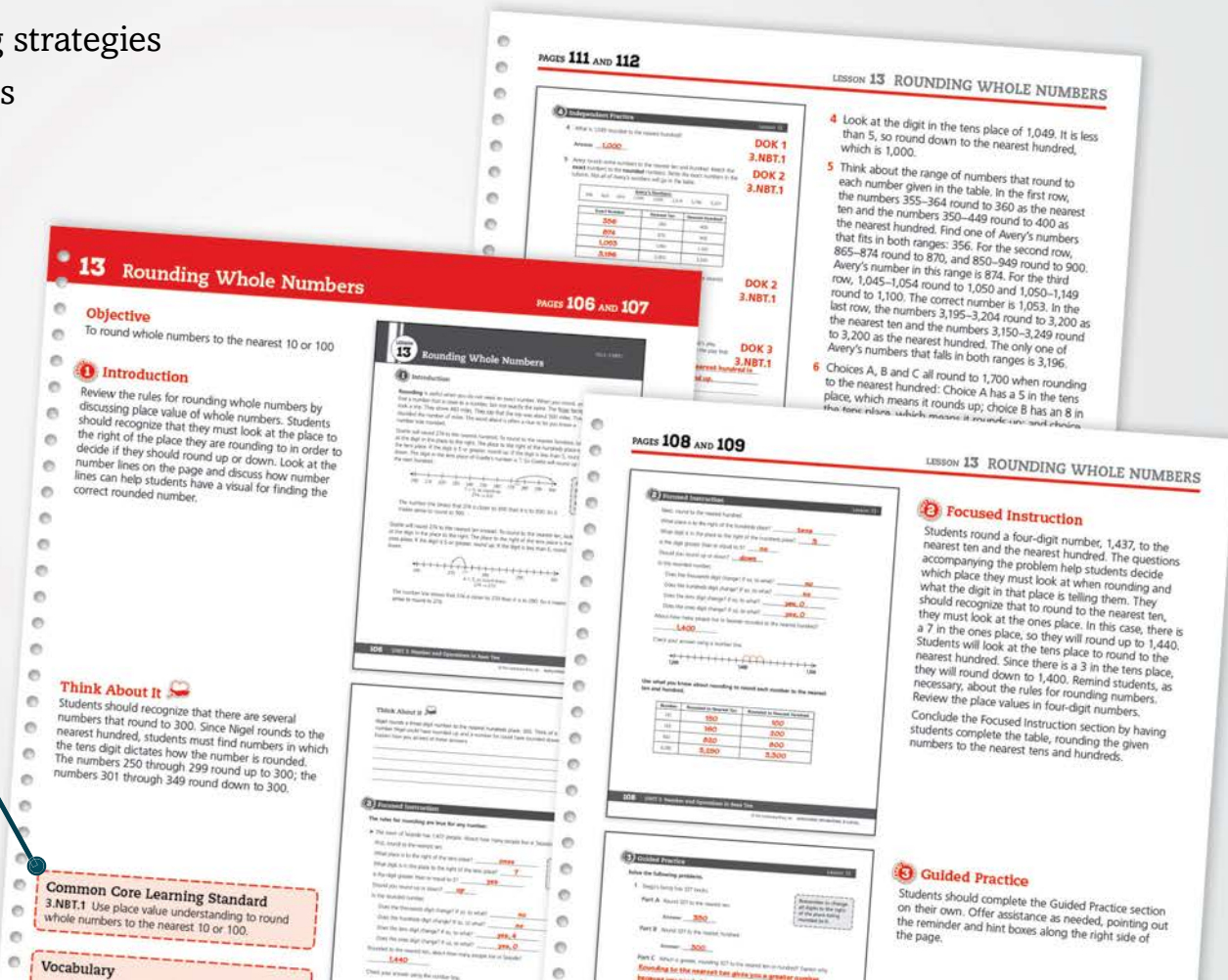
**A****add:** to put together**addends:** numbers that are added in an addition problem to find a sum  
**addition table:** a table that shows the sums of all combinations of one-digit numbers**angle:** a figure formed by two rays that share an endpoint and extend in different directions**area:** the amount of space inside a figure, measured in square units. The area formula for a rectangle is  $\text{Area} = \text{length} \times \text{width}$ .**array:** a model using rows and columns of symbols or shapes**associative property:** allows grouping of numbers with parentheses to be added or multiplied:  $a + (b + c) = (a + b) + c$  and  $a \times (b \times c) = (a \times b) \times c$ **B****bar graph:** a data display that uses bars to show data**C****capacity:** the measure of how much liquid something holds; also called *liquid volume***centimeter:** a small unit of length in the metric system. A centimeter is about the width of a finger.**clock:** a tool used to tell time**commutative property:** allows numbers to be added or multiplied in any order:  $a + b = b + a$  and  $a \times b = b \times a$ **compare:** to decide which number is greater than or less than another number**customary system:** a system of measurement used in the United States. It measures length using inches, feet, yards, and miles.**D****data:** information**denominator:** the number of parts in a whole or set, the number on the bottom of a fraction

# Teaching Support

Annotated teacher's editions include:

- Suggestions for use/teaching strategies
- Connections to the Standards for Mathematical Practice
- Common Core Learning Standards correlations
- Depth of Knowledge (DOK) for each item
- Annotated student pages and answer rationales
- Hands-on extension activities

Common Core Learning Standards  
Next Generation Crosswalks available



## eBooks

Continental's eBooks go where you and your students need to be, making them ideal for both distance and blended learning models. Our printed books are delivered online with features to help you personalize instruction and make the most of practice time.





# Student Tools and Notifications

With the easy-to-use tools and notifications, students can:

- Add bookmarks, notes, and highlights as they're working through their lessons.
- See teacher notifications for assignments and feedback for their answers from the lessons.
- View their eBook library.

The screenshot shows a digital textbook interface. On the left is a sidebar with icons for Contents, Bookmarks, Notes, Highlights, Settings, and Help. The main content area is titled 'Lesson 20' and 'Focused Instruction'. It contains a text block about absolute value, a table of football plays, and several questions for students to answer. A callout box explains that absolute value is the same as the positive distance from a number to 0 on a number line.

**Lesson 20**

**Focused Instruction**

Distance is always a positive number. Since absolute value represents the distance of a number from 0 on a number line, it is always positive too. You can use absolute value to understand distances. Work with a partner to answer the questions below.

► The following is a record of the yards gained and lost in the first eight plays of a football game.

Play	Yards Gained or Lost
1	8
2	-9
3	-10
4	-8
5	6
6	18
7	1
8	-4

Absolute value is the same as the positive distance from that number to 0 along a number line.

In the first play, did the team gain or lose yards? \_\_\_\_\_

How do you know if they gained or lost yards? \_\_\_\_\_

In the second play, did the team gain or lose yards? \_\_\_\_\_

How do you know if they gained or lost yards? \_\_\_\_\_

How many yards did the team move the ball on the second play? \_\_\_\_\_

To describe the distance the team moved the ball on this play, would you use a negative or positive number? \_\_\_\_\_ Explain.

\_\_\_\_\_

In which two plays did the team move the ball the same distance?

\_\_\_\_\_

Did they move the ball in the same direction in both of these plays?

## NYC/FAMIS ORDERS

*Prices include shipping and handling.*

### Student Books

*Available as printed books or one-year eBook licenses.  
An answer key is **FREE** with the purchase of 25 or more of the same printed book.*

**Printed:** 5 or more copies of the same book  
**\$12.92 each**

**eBook:** 20 or more copies of the same license  
**\$15.34 each**

### Annotated Teacher's Editions

*Available as printed books or as one-time eBook purchases for unlimited use*

**Printed:** \$23.04 each

**eBook:** \$27.35 each

### Classroom Sets

**Printed set:** 25 copies of the same printed student book plus a printed annotated teacher's edition **\$335.50 each**

**eBooks set:** 25 of the same student eBook plus an annotated teacher's edition eBook  
**\$399.67 each**

## NON-NYC ORDERS

### Student Books

*Available as printed books or one-year eBook licenses.  
An answer key is **FREE** with the purchase of 25 or more of the same printed book.*

**Printed:** 5 or more copies of the same book

**eBook:** 20 or more copies of the same license

**\$14.75 each**

### Annotated Teacher's Editions

*Available as printed books or as one-time eBook purchases for unlimited use*

**\$26.30 each**

### Classroom Sets

**Printed set:** 25 copies of the same printed student book plus a printed annotated teacher's edition

**eBooks set:** 25 of the same student eBook plus an annotated teacher's edition eBook

**\$384.30 each**

