

Grades 1–8

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Continental
inspire every learner

What does this series do?

Finish Line New Jersey Math, Common Core provides instruction and practice to reinforce your teaching and help students learn the Common Core and New Jersey Learning Standards. Concise, simply-presented lessons keep students focused and on task. Components include student workbooks, student answer booklets, and annotated teacher's editions.

Choose your components for easy implementation.



Standards Connection

Units parallel the domains of the Common Core State Standards.

300+ pages of instruction and practice

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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 3

In grade 3, you learned about adding, subtracting, multiplying, and dividing with two- and three-digit numbers. You also learned how to identify and write fractions as well as how to find the area and perimeter of figures. Now you can use what you know about operations, fractions, and measurement to review your skills, compare fractions, and measure area in new ways.

LESSON 1 Adding and Subtracting In this lesson, you will add and subtract within 1,000 using the commutative and associative properties, regrouping, and place-value models.

LESSON 2 Multiplying and Dividing In this lesson, you will multiply and divide within 100 using the zero and identity properties, unit cubes, and fact families.

LESSON 3 Understanding Fractions In this lesson, you will compare fractions using the greater-than and less-than symbols, number lines, and circular or rectangular models.

LESSON 4 Understanding Area In this lesson, you will measure area in square units by counting squares. You will interpret a key to find the areas of rectangles and irregular figures, compare areas, and draw figures with given areas.

LESSON 1 Adding and Subtracting

CCSS: 3.NBT.2

1 Introduction

When you add numbers, you find a **sum**, or total.

Lincoln Elementary School has 217 students in third grade, 189 students in fourth grade, and 231 students in fifth grade. How many students in all are in grades 3, 4, and 5?

Set up a vertical problem. First add the ones. Then add the tens. Finally, add the hundreds. Regroup when the sum of a place is 10 or more.

1	11	11
217	217	217
189	189	189
+231	+231	+231
7	37	637

So, there are 637 students in third, fourth, and fifth grades at the school.

When you subtract, you find a **difference**.

Ms. Davis's fourth-grade class has a goal of collecting 250 cans of food. So far the students have collected 138 cans. How many more cans do they need to collect to meet their goal?

LESSON 2 Multiplying and Dividing

CCSS: 3.OA.7

1 Introduction

Multiplication and division are related. They are **inverse operations**, or opposites.

Multiply to combine equal groups. Divide to break a group into equal groups.

Addends are the numbers you add to find a sum.

Factors are the numbers you multiply to get a product. A dividend is the number you divide by a divisor to get a quotient.

numerator
the total

$\frac{3}{4}$ - Numerator
 $\frac{3}{4}$ - Denominator

must be
have 3 parts

$\frac{3}{4}$ is

A whole number is equivalent to a fraction with a denominator of 1.
 $5 = \frac{5}{1}$

the same
on.

> means
"is greater than"
< means
"is less than"

LESSON 3 Understanding Fractions

CCSS: 3.NF.1; 2.a; 3.a-d

1 Introduction

larger

and the

in any way

= 42

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.

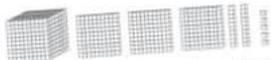
Vocabulary

LESSON 14 Reading and Writing Whole Numbers CCSS: 4.NBT.2

1 Introduction

Whole numbers can be written in words, in standard form, and in expanded form. **Expanded form** shows a number as the sum of the values of its places.

What is the number shown by this model?



Write the number in standard form, expanded form, and word form.
The model shows 1 thousand, 3 hundreds, 2 tens, and 5 ones.
In standard form, this number is 1,325.

To write the number in expanded form, write the value of each place as a product. Then add the products to show a sum.

1 thousand	3 hundreds	2 tens	5 ones
1,000	300	20	5
$(1 \times 1,000)$	$+ (3 \times 100)$	$+ (2 \times 10)$	$+ (5 \times 1)$

In expanded form, 1,325 is $(1 \times 1,000) + (3 \times 100) + (2 \times 10) + (5 \times 1)$.

In word form, this number is one thousand, three hundred twenty-five. **Word form** is the number name.

Think About It 

Why is the digit in a place multiplied by its place value when writing the expanded form?

Vocabulary Callouts:

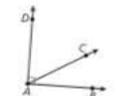
- A number in standard form is written as the sum of the values of its places. 3,569
- A right angle is shown by a box in the corner.
- m∠DAC means "the measure of angle DAC."
- Do not use the word and in the word form of a whole number. It stands for a decimal point.

LESSON 38 Solving Angle Problems CCSS: 4.MD.7

1 Introduction

An angle may be made up of two or more smaller angles. You can add and subtract to find missing measures.

Angle DAB is a right angle. Angle CAB measures 30° . What is the measure of $\angle DAC$?



Since $\angle DAB$ is a right angle, it must measure 90° .
From the diagram you can see that $\angle CAB$ and $\angle CAD$ make up $\angle DAB$. Write an equation to help you find the measure of $\angle DAC$.

$$30 + m\angle DAC = 90$$

$$m\angle DAC = 90 - 30 = 60$$

Angle DAC is 60° .

Think About It 

How can knowing the measure of a straight angle and a right angle help you find the measure of other angles?

Vocabulary Callouts:

- A right angle is shown by a box in the corner.
- m∠DAC means "the measure of angle DAC."

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

2 Focused Instruction Lesson 14

Use multiplication and addition to write a number in expanded form.

► What is the expanded form of the number 2,502?
 How many thousands are there? _____ Hundreds? _____
 Tens? _____ Ones? _____
 What is the value of the digit in the thousands place? _____
 Write this value as a product of the digit and the value of the place.

 What is the value of the digit in the hundreds place? _____
 Write this value as a product of the digit and the value of the place.

 What is the value of the digit in the tens place? _____
 Do you need to include the tens in the expanded form of the number?

 What is the value of the digit in the ones place? _____
 Write this value as a product of the digit and the value of the place.
 Write the number 2,502 as the sum of the values of each of its places.

 What is the expanded form of the number?

A place value of 0 is not included in the expanded form of the number.

Use parentheses around the multiplication expressions to make the expanded form easier to read.

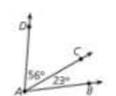
You can change a number in expanded form to standard form by adding the products of the multiplication expressions.

► Write the standard form of the number shown below.
 $(2 \times 1,000) + (5 \times 100) + (5 \times 10) + (3 \times 1)$

2 Focused Instruction Lesson 38

When two angles are put together, the measure of the new angle is the sum of the original two angles' measures.

► What is the size of $\angle BAD$?



For which angles are the values known? _____
 Do the angles overlap? _____
 If you were to remove ray AC, what angle would remain? _____
 What can you conclude about the relationship between the measures of the three angles in this diagram?

Combine $\angle DAC$ and $\angle CAB$ to make $\angle BAD$.

Write an equation for finding the measure of $\angle BAD$. Use letter names for all the angles in the equation. _____
 Substitute angle values for the known angles and solve the equation for the unknown angle. _____
 What is the measure of $\angle BAD$? _____

Write equations to help you find a missing angle measure.

► The map below shows some streets in a town.



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

3 Guided Practice Lesson 14

Solve the following problems.

1 In 2010, the population of Maxwell, Iowa, was 920 people. What was the population of Maxwell, Iowa, written in expanded form?

Answer _____

2 The distance, in miles, from Earth to the moon is shown in expanded form.
 $(2 \times 100,000) + (3 \times 10,000) + (8 \times 1,000) + (8 \times 100) + (5 \times 10) + (5 \times 1)$

Part A What is the distance from Earth to the moon written in standard form?

Answer _____

Part B Explain how you found your answer.

3 A cornfield is 1,615 feet long. How many feet long is the field, written in word form?

Answer _____

The ones place does not need to be represented in the expanded form.

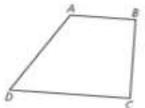
Find the product of each expression in parentheses to find the value of the place. Then add the values of the places.

The tens and ones places are written as one word.

3 Guided Practice Lesson 38

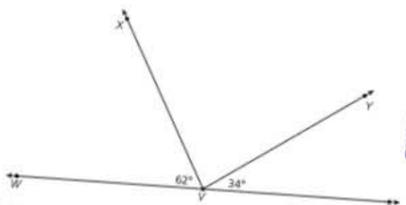
Solve the following problems.

1 The inside angles of a quadrilateral add up to 360° . There are two angles in this quadrilateral that are right angles, and the measure of $\angle CDA$ is 55° . What is the measure of $\angle DAB$? Explain your answer. Then check the answer with your protractor.



How many degrees are in a right angle?

2 Look at the figure below.



What type of angle is $\angle WVZ$?

What is the measure of $\angle XVY$? Show your work.

Answer _____

Gradual Release Model

Part #4: Independent Practice

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

- 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

4 An adult human skeleton has 206 bones.

Part A Write the number of bones in the human skeleton in expanded form.

Answer _____

Part B Both feet and ankles together have 52 of the bones in the human skeleton. What is the number of bones in the rest of the body, written in word form?

Answer _____

5 Mark True or False for each statement.

	True	False
one thousand, twenty-four = 10,024	<input type="checkbox"/>	<input type="checkbox"/>
843 = eight hundred forty-three	<input type="checkbox"/>	<input type="checkbox"/>
3,567 = 3,000 + 500 + 60 + 7	<input type="checkbox"/>	<input type="checkbox"/>
$(2 \times 10,000) + (6 \times 100) + (5 \times 10) = 2,650$	<input type="checkbox"/>	<input type="checkbox"/>
4 thousands + 9 hundreds + 8 tens = 4,980	<input type="checkbox"/>	<input type="checkbox"/>
$500,270 = (5 \times 100) + (2 \times 100) + (7 \times 10)$	<input type="checkbox"/>	<input type="checkbox"/>

4 Independent Practice LESSON 14

4 If $\angle MNO$ measures 120° , which pairs could be the measures of $\angle MNP$ and $\angle PNO$? Select the **three** correct answers.

A $\angle MNP = 77^\circ$ and $\angle PNO = 33^\circ$

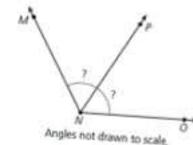
B $\angle MNP = 60^\circ$ and $\angle PNO = 60^\circ$

C $\angle MNP = 44^\circ$ and $\angle PNO = 76^\circ$

D $\angle MNP = 81^\circ$ and $\angle PNO = 49^\circ$

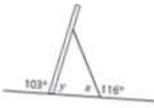
E $\angle MNP = 93^\circ$ and $\angle PNO = 87^\circ$

F $\angle MNP = 51^\circ$ and $\angle PNO = 69^\circ$



Angles not drawn to scale.

5 The drawing at the right shows the side view of a picture frame on a table.



Part A What is the measure of $\angle x$?

Answer _____ $^\circ$

Part B What is the measure of $\angle z$?

Answer _____ $^\circ$

6 Three angles are put together to form a right angle. Which of the following choices could be the measures of the three angles? Select the **two** correct answers.

A $16^\circ, 31^\circ,$ and 43°

B $45^\circ, 45^\circ,$ and 45°

C $18^\circ, 68^\circ,$ and 94°

D $32^\circ, 61^\circ,$ and 87°

E $9^\circ, 21^\circ,$ and 60°

F $22^\circ, 55^\circ,$ and 58°

Reviews

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

UNIT 4 REVIEW
Number and Operations—Fractions

CCSS: 4.NF.1-7

Solve the following problems.

1 Which fractions are equivalent to $\frac{2}{8}$? Select the two correct answers.

A 

B 

C 

D 

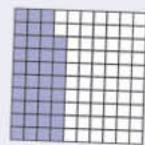
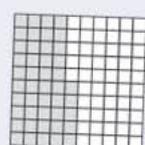
E 

2 Circle the fractions that are greater than $\frac{1}{8}$ but less than $\frac{3}{4}$.

$\frac{1}{4}$ $\frac{2}{6}$ $\frac{3}{8}$ $\frac{5}{6}$ $\frac{7}{12}$

3 Chandler bought $\frac{3}{4}$ pound of American cheese and $\frac{1}{4}$ pound of Swiss cheese. Uma bought $\frac{2}{4}$ pound of Cheddar cheese and $\frac{2}{4}$ pound of jack cheese. Uma says they bought the same amount of cheese. Is she

6 Two decimals are modeled on these grids.

Part A Write a comparison statement using $>$, $<$, or $=$ to compare the decimals.
Answer _____

Part B Explain your answer to Part A using place values.

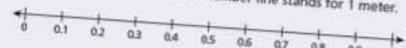
7 Use the squares below to create a model of $3 \times \frac{3}{5}$.

=

What is the product? Write the answer as a mixed number.
Answer _____

8 Padme won a trophy that is 65 centimeters tall. The shelves in Padme's trophy case are 0.60 meter apart. She knows that 1 centimeter equals 0.01 meter.

Part A Draw and label points for 0.60 meter and 65 centimeters on this number line. The 1 on the number line stands for 1 meter.



Part B Can Padme's trophy fit on a shelf standing up? Explain.

9 Kerem rode his bicycle $2\frac{9}{10}$ miles to his job and then the same distance home. If he does this 4 days a week, how far does he ride his bicycle in a week to and from his job? Show your work. Write your answer as a mixed number in lowest terms.

Answer _____ miles

10 Yoko mixed $\frac{5}{8}$ gallon of lemonade with $\frac{4}{8}$ gallon of cranberry juice. She poured $\frac{3}{8}$ gallon of the mixed juice into glasses at dinnertime. How much of the mixed juice was left? Show your work.

Answer _____ gallon

UNIT 4 REVIEW Number and Operations—Fractions

Resources

Glossary

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

Flash Cards

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



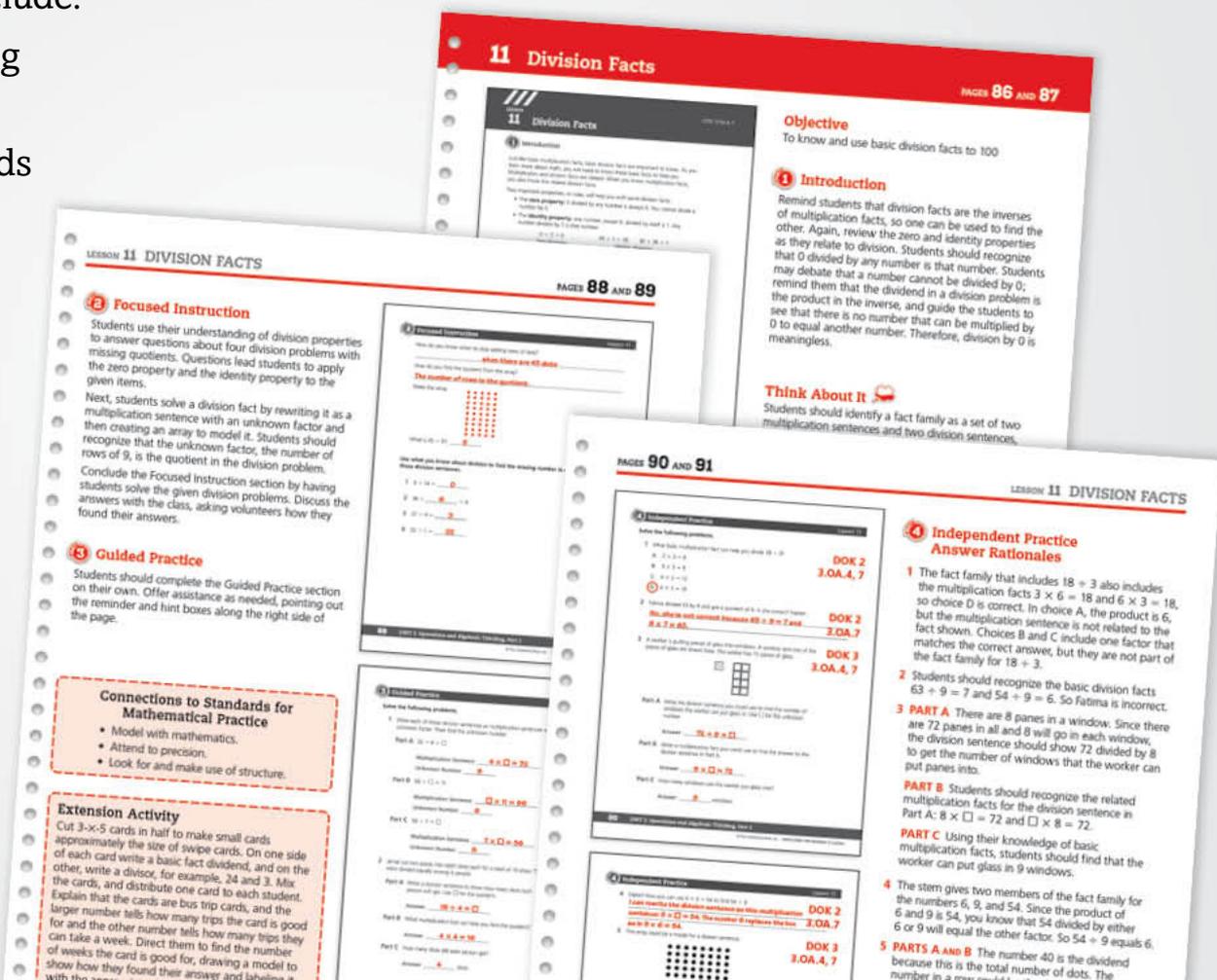
GLOSSARY

- A** **acute angle:** an angle that measures less than 90°
acute triangle: a triangle with three acute angles
addends: numbers that are added in an addition problem to find a sum
alternate: to arrange in order by turns
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
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** **benchmark fractions:** familiar fractions that are easy to work with, such as $\frac{1}{2}$ and $\frac{3}{4}$
- C** **capacity:** the measure of how much liquid something holds; volume
common denominator: a number that is a multiple of every denominator of the fractions in a set
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
comparison: an equation or statement that compares two amounts using an operation
composite number: a whole number that has more than two factors
congruent: equal in length, measure, or shape
convert: to change from one unit of measure to another
customary system: a system of measurement used in the United States. It includes units of
 - length—inch, foot, yard, mile
 - capacity—cup, pint, quart, gallon
 - weight—ounce, pound, ton

Teaching Support

Annotated teacher's editions include:

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



Affordable Pricing

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