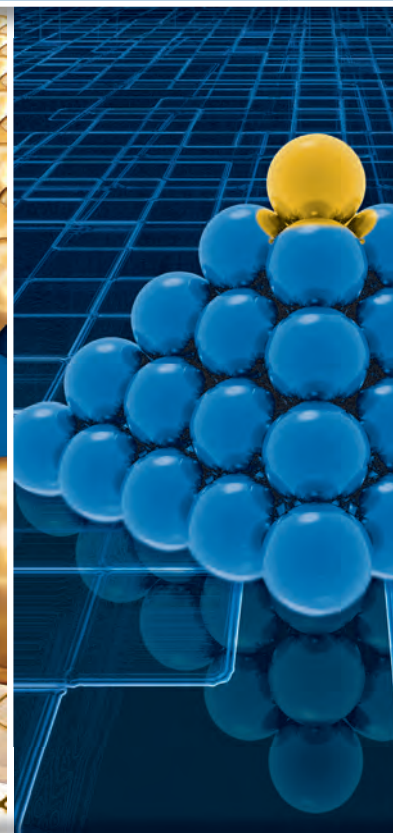
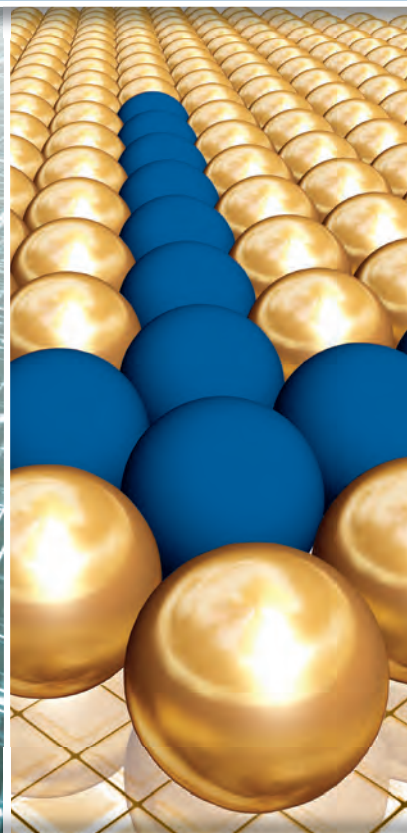
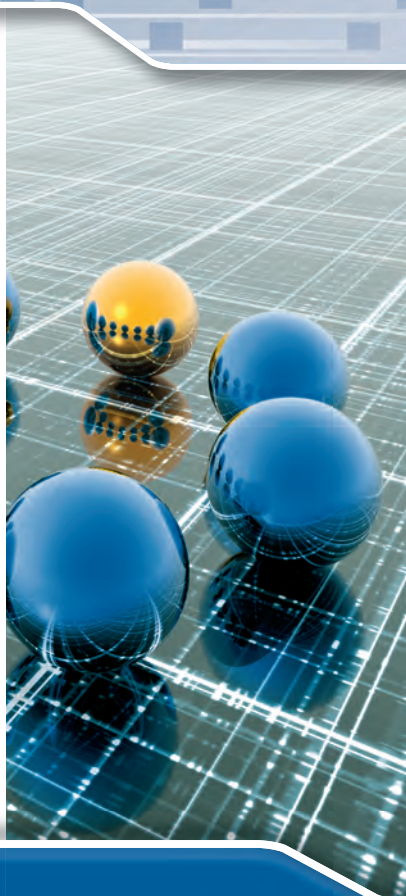


Pinpoint Math™

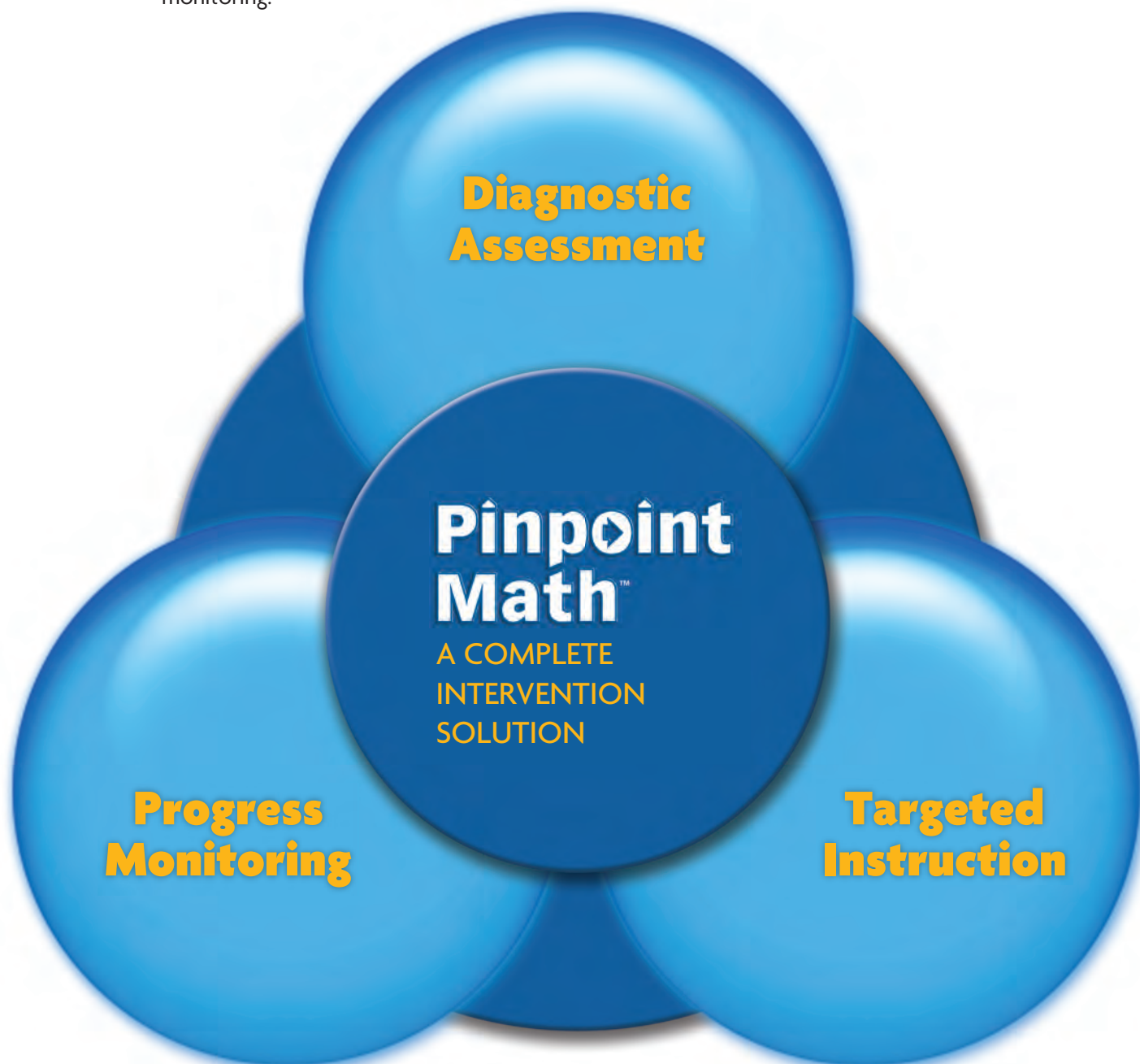
PROGRAM OVERVIEW AND SAMPLER



A Three-Part Intervention Solution

Wright Group/McGraw-Hill has carefully designed *Pinpoint Math™* to meet the needs of students requiring mathematics remediation. The curriculum offers a complete intervention solution while making mathematics accessible to all students in grades 1 to 7.

The program incorporates three essential elements necessary to improve mathematic performance among struggling students: diagnostic assessment, targeted instruction, and ongoing progress monitoring.



Program Organization

Topics for each *Pinpoint Math* grade level are divided into a six-volume set of student books. The Teacher's Guide and assessment materials are organized by volume.

Pinpoint Math provides the option to use a comprehensive, learning-based assessment management system for mathematics. Each diagnostic test, whether administered via paper and pencil or electronically, provides actionable data on student achievement to help teachers target instruction and measure student progress.

Core Components

Student Booklets

Student Booklets
6 per level



Teacher's Guides

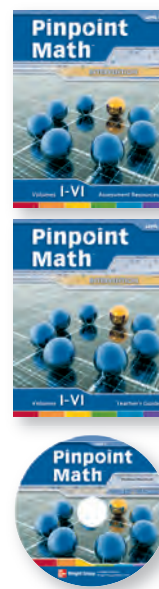
Teacher's Guide
1 per level

Assessment

Assessment Resources
1 per level

Tutorials

Student Tutorials CD-ROM
1 per level



THE CORE COMPONENTS ARE THE SAME FOR EACH LEVEL, A–G

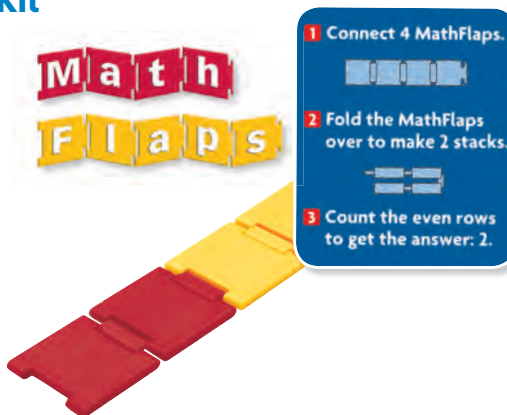
Optional Components

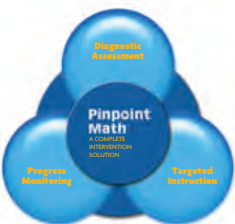
Online Subscription

- A Online assessments
- B Online student tutorials
- C Computer-generated individual student action plans based on assessment results
- D Computer-generated reports summarizing assessment results

Manipulative Kit

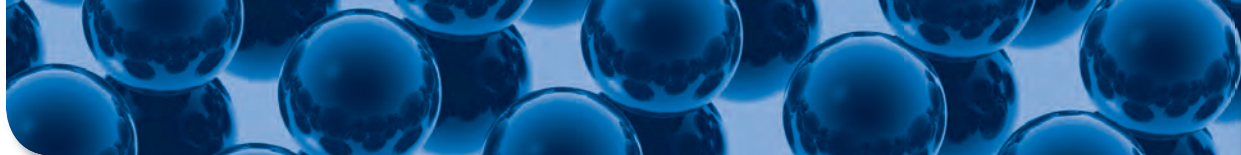
- A Math Flaps
- B Base 10 Blocks
- C Fraction Circles
- D Spinners
- E Rulers
- F Pattern Blocks
- G Counters
- H Number Cubes



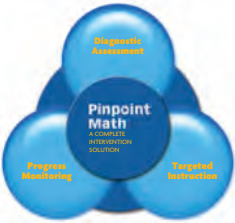


Program Organization

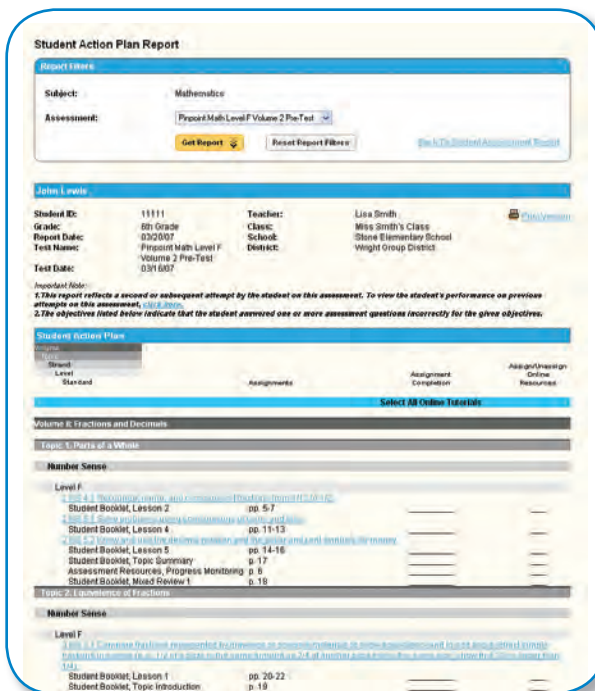
	LEVEL A	LEVEL B	LEVEL C
VOLUME 1	Volume 1: Understand Numbers	Volume 1: Data and Number Concepts	Volume 1: Number Sense
	TOPIC 1 Explore One to Ten TOPIC 2 Explore Eleven to Twenty	TOPIC 1 Understand Numbers to 12 TOPIC 2 Use Numbers to 20 TOPIC 3 Explore Larger Numbers	TOPIC 1 Explore Numbers TOPIC 2 Understand Numbers to 100
VOLUME 2	Volume 2: Position, Location, and Comparison	Volume 2: Understand Addition and Addition Facts	Volume 2: Understand Place Value
	TOPIC 3 Position and Location TOPIC 4 Compare Numbers and Quantities	TOPIC 4 Understand Addition TOPIC 5 Add TOPIC 6 Explore Greater Sums	TOPIC 3 Numbers to 100 TOPIC 4 Numbers to 1,000
VOLUME 3	Volume 3: Sorting, Classifying, and Patterns	Volume 3: Understand Subtraction and Subtraction Facts	Volume 3: Basic Addition and Subtraction Facts
	TOPIC 5 Sorting and Classifying TOPIC 6 Patterns	TOPIC 7 Understand Subtraction TOPIC 8 Subtract TOPIC 9 Subtraction with Greater Numbers	TOPIC 5 Focus on Addition Facts TOPIC 6 Focus on Subtraction Facts
VOLUME 4	Volume 4: Explore Addition and Subtraction	Volume 4: Patterns, Shapes, Position, and Location	Volume 4: Add and Subtract Greater Numbers
	TOPIC 7 Understand Addition and Subtraction TOPIC 8 Record Addition and Subtraction TOPIC 9 Facts to 10	TOPIC 10 Patterns, Position, and Location TOPIC 11 Patterns and Shapes	TOPIC 7 Understand Two-Digit Addition TOPIC 8 Understand Two-Digit Subtraction TOPIC 9 Three Digit Addition and Subtraction
VOLUME 5	Volume 5: Simple Shapes and Measurement	Volume 5: Time and Measurement	Volume 5: Time, Money, and Measurement
	TOPIC 10 Simple Shapes TOPIC 11 Measurement	TOPIC 12 Time TOPIC 13 Measurement	TOPIC 10 Time TOPIC 11 Money TOPIC 12 Measurement
VOLUME 6	Volume 6: Time and Money	Volume 6: Explore Numbers to 100	Volume 6: Geometry, Data, and Fractions
	TOPIC 12 Calendar Time TOPIC 13 Clock Time TOPIC 14 Money	TOPIC 14 Money TOPIC 15 Place Value	TOPIC 13 Geometry TOPIC 14 Data, Graphing, and Fractions



	LEVEL D	LEVEL E	LEVEL F	LEVEL G
VOLUME 1	Volume 1: Number Sense and Place Value	Volume 1: Number Sense and Place Value	Volume 1: Number Sense and Place Value	Volume 1: Number Sense and Place Value
	TOPIC 1 Place Value through 100 TOPIC 2 Place Value through 10,000	TOPIC 1 Place Value through 100 TOPIC 2 Place Value through 1,000 TOPIC 3 Place Value beyond 1,000	TOPIC 1 Place Value through 1,000 TOPIC 2 Place Value through millions	TOPIC 1 Place Value through 1,000 TOPIC 2 Place Value beyond 1,000 TOPIC 3 Addition and Subtraction TOPIC 4 Multiplication Concepts TOPIC 5 Division Concepts
VOLUME 2	Volume 2: Addition and Subtraction	Volume 2: Basic Facts	Volume 2: Basic Facts	Volume 2: Whole Number Operations
	TOPIC 3 Addition Facts TOPIC 4 Subtraction Facts TOPIC 5 Add or Subtract 1-and 2-Digit Numbers TOPIC 6 Add or Subtract Multidigit Numbers	TOPIC 4 Addition and Subtraction Facts TOPIC 5 Multiplication Facts TOPIC 6 Division Facts	TOPIC 3 Addition and Subtraction Facts TOPIC 4 Multiplication Facts TOPIC 5 Division Facts	TOPIC 6 Use Addition or Subtraction to Compute TOPIC 7 Use Multiplication to Compute TOPIC 8 Use Division to Compute TOPIC 9 Basic Properties of Algebra TOPIC 10 Expressions TOPIC 11 Equations and Inequalities
VOLUME 3	Volume 3: Time and Money	Volume 3: Add and Subtract	Volume 3: Add, Subtract, Multiply, and Divide	Volume 3: Understand Fractions
	TOPIC 7 Understand Time TOPIC 8 Understand Money	TOPIC 7 Add or Subtract 1- and 2-Digit Numbers TOPIC 8 Add or Subtract Multidigit Numbers	TOPIC 6 Use Addition or Subtraction to Compute TOPIC 7 Use Multiplication to Compute TOPIC 8 Use Division to Compute TOPIC 9 Basic Properties of Algebra TOPIC 10 Expressions and Equations	TOPIC 12 Meaning of Fractions TOPIC 13 Equivalence of Fractions TOPIC 14 Addition and Subtraction of Fractions TOPIC 15 Multiplication and Division of Fractions
VOLUME 4	Volume 4: Multiplication and Division	Volume 4: Multiply and Divide	Volume 4: Data, Geometry, and Measurement	Volume 4: Understand Decimals
	TOPIC 9 Multiplication Facts and Concepts TOPIC 10 Division Facts and Concepts TOPIC 11 Use Multiplication to Compute TOPIC 12 Use Division to Compute	TOPIC 9 Use Multiplication to Compute TOPIC 10 Use Division to Compute TOPIC 11 Equations and Inequalities	TOPIC 11 Graphing TOPIC 12 Basic Geometric Figures TOPIC 13 Measurement Conversion TOPIC 14 Measure Geometric Figures	TOPIC 16 Decimals and Money TOPIC 17 Decimal Operations TOPIC 18 Decimal and Fraction Comparisons
VOLUME 5	Volume 5: Geometry and Measurement	Volume 5: Data, Geometry, and Measurement	Volume 5: Explore Fractions	Volume 5: Data, Geometry, and Measurement
	TOPIC 13 Basic Geometric Figures TOPIC 14 Standard Measurement TOPIC 15 Metric Measurement TOPIC 16 Measure Geometric Figures	TOPIC 12 Graphing TOPIC 13 Basic Geometric Figures TOPIC 14 Measurement Conversion TOPIC 15 Measure Geometric Figures	TOPIC 15 Meaning of Fractions TOPIC 16 Equivalence of Fractions TOPIC 17 Addition and Subtraction of Fractions TOPIC 18 Multiplication and Division of Fractions	TOPIC 19 Graphing TOPIC 20 Basic Geometric Figures TOPIC 21 Measurement Conversion TOPIC 22 Measure Geometric Figures
VOLUME 6	Volume 6: Data and Graphs	Volume 6: Fractions and Decimals	Volume 6: Explore Decimals	Volume 6: Ratios, Rates, Proportions, and Percents
	TOPIC 17 Types of Graphs TOPIC 18 Use Data	TOPIC 16 Meaning of Fractions TOPIC 17 Equivalence of Fractions TOPIC 18 Addition and Subtraction of Fractions TOPIC 19 Decimals and Money TOPIC 20 Decimal Operations and Comparisons	TOPIC 19 Decimals and Money TOPIC 20 Decimal Operations TOPIC 21 Decimal and Fraction Comparisons	TOPIC 23 Ratios and Proportions TOPIC 24 Use Rates TOPIC 25 Percents



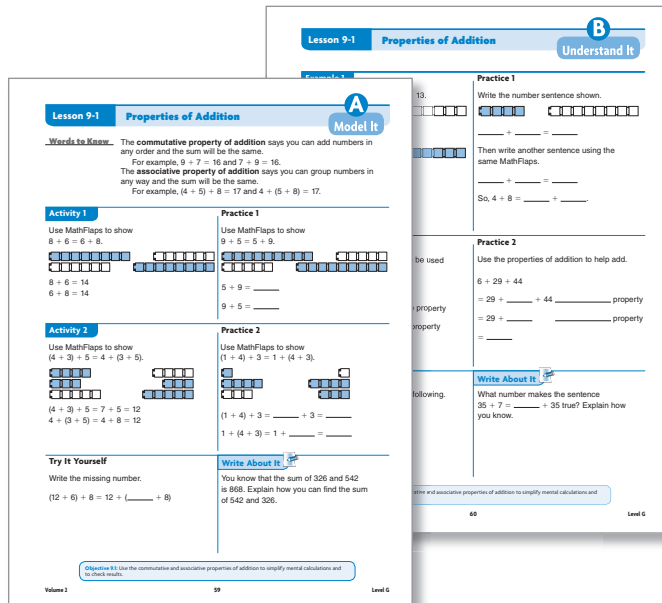
Pretest for the first volume is given to all students, either online or by paper and pencil.



Teacher prepares individual or group objective-based assignments based on test results.



Students complete the introduction page; teacher demonstrates, questions, and/or presents an overview of the topic based on student introduction responses.



Assignments

Student booklet pages and online computer tutorials are assigned based on individual student needs.

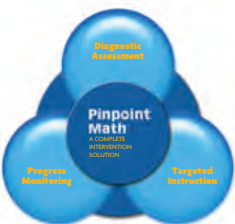


Summary and Review

Students complete Topic Summary, Mixed Review and Progress Monitoring informal assessment pages and receive teacher feedback.

Posttest

Student takes the volume posttest and repeats the process for the next volume.



Topic Introduction

Topic Introductions

These help the teacher determine how much teacher support may be needed on this particular topic for each student.

The teacher's guide suggests flexible grouping in pairs or small groups to encourage discussion and language practice while deepening student understanding.

Volume 2

Whole Number Operations

Topic

Basic Properties of Algebra

9

Topic Introduction

Objectives: 9.1 Use the commutative and associative properties of addition to simplify mental calculations and to check results. 9.2 Recognize and use the commutative and associative properties of multiplication. 9.3 Know and use the distributive property.

Materials □ MathFlaps

Distribute MathFlaps and have students create two-color rows. Have students trade with a partner and write two different addition sentences based on the MathFlaps. Repeat, having students use the MathFlaps to make equal groups and write two different multiplication sentences. Discuss whether the sum or product changes with the order of the numbers.

Informal Assessment

- How many MathFlaps are white? 5 How many are blue? 8 How many MathFlaps are there in all? 13 Have students complete Part a. What sum is illustrated by the counters? $5 + 8$ What addition problem can you write if you start with the number of blue MathFlaps? $8 + 5$ What is the sum? 13 Did the order of the addends change the sum? No.
- What is the product of the first two pairs of numbers? 21 How could you use counters to find the missing numbers? Sample: Arrange 21 counters in three groups of seven and skip count. Can you use number facts to solve? Yes, I know $3 \times 7 = 21$, so the missing number in Part a is 3.
- Define the distributive property. It is a property that relates two operations on numbers, usually multiplication and addition or multiplication and subtraction. It distributes the factor outside the parentheses over the terms within the parentheses.
- Look at the two ways of multiplying $4 \times 2 \times 3$. How are they different? The first two numbers that are multiplied are 4 and 2. In Part b, the first two numbers that are multiplied are 2 and 3. Does it make any difference how you group the numbers? No.

Topic 9

Basic Properties of Algebra

Topic Introduction

Complete with teacher help if needed.

1. Write the expression.

$5 + 8$

a. 5 white + 8 blue =

b. 8 blue + 5 white

Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

1. Use the distributive property to simplify the expression.

$8 \times (6 + 5)$

$= (8 \times 6) + (8 \times 5)$

$= 48 + 40$

$= 88$

Objective 9.3: Know and use the distributive property.

Objective 9.2: Recognize and use the commutative and associative properties of multiplication.

4. Find $4 \times 2 \times 3$.

a. One way:

$(4 \times 2) \times 3 =$

$8 \times 3 = 24$

b. Another way:

$4 \times (2 \times 3) =$

$4 \times 6 = 24$

c. This shows the associative property.

Objective 9.2: Recognize and use the commutative and associative properties of multiplication.

Student Booklet Page 58

Another Way Suggest that students use MathFlaps to illustrate the products for Exercises 2 and 4.

Model It

Lesson 9-1

Properties of Addition

A Model It

Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

Teach the Lesson

Materials □ MathFlaps

Activate Prior Knowledge

Write several addition problems on the board, such as $4 + 8$, $8 + 4$, $10 + 6$, $6 + 10$, and so on. Have students find the sums. **What do you notice about the problems you just did? Sample: Problems such as $4 + 8$ and $8 + 4$ have the same answer. What is the same about $4 + 8$ and $8 + 4$? What is different? Sample: They have the same addends, operation sign, and sum but the addends are in a different order.** Repeat the activity with sentences such as $4 + (5 + 8)$ and $(4 + 5) + 8$.

Develop Academic Language

Write $5 + (8 + 2)$ on the board. Point to the parentheses. **These symbols are parentheses. In math, parentheses mean you do whatever is inside of them first. What should we do first here?**

$8 + 2 = 10$ Then what? $5 + 10 = 15$

Model the Activities

Activity 1 Provide students with MathFlaps. Show me $8 + 6$. Then show me $6 + 8$. What is true about the sums? **They are the same.** Write $8 + 6 = 6 + 8$. What property did we illustrate? **Commutative**

Activity 2 Provide students with MathFlaps and have them illustrate the sums $(4 + 3) + 5$ and $4 + (3 + 5)$. What property are we illustrating? **Associative**

Write About It

ENGLISH LEARNERS If students have difficulty with this question, provide them with specific examples and ask them to explain orally what they see.

Lesson 9-1 Properties of Addition

Words to Know: The **commutative property of addition** says you can add numbers in any order and the sum will be the same. For example, $9 + 7 = 16$ and $7 + 9 = 16$. The **associative property of addition** says you can group numbers in any way and the sum will be the same. For example, $(6 + 5) + 4 = 15$ and $6 + (5 + 4) = 15$.

Activity 1

Use MathFlaps to show $8 + 6 = 6 + 8$.

$8 + 6 = 14$
 $6 + 8 = 14$

Activity 2

Use MathFlaps to show $(4 + 3) + 5 = 4 + (3 + 5)$.

$(4 + 3) + 5 = 7 + 5 = 12$
 $4 + (3 + 5) = 4 + 8 = 12$

Try It Yourself

Write the missing number.
 $(12 + 6) + 8 = 12 + (6 + 8)$

Practice 1

Use MathFlaps to show $9 + 5 = 5 + 9$.

$9 + 5 = 14$
 $5 + 9 = 14$

Practice 2

Use MathFlaps to show $(1 + 4) + 3 = 1 + (4 + 3)$.

$(1 + 4) + 3 = 5 + 3 = 8$
 $1 + (4 + 3) = 1 + 7 = 8$

Write About It

You know that the sum of 326 and 542 is 868. Explain how you can find the sum of 542 and 326.

We can use the commutative property. We know $326 + 542 = 868$, so $542 + 326$ is also 868.

Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

Volume 2 59 Level G



Progress Monitoring

Describe the commutative and associative properties in your own words. **Sample: You can add numbers in any order and you can group the numbers in any way you want, and you will still get the same sum.**

Error Analysis

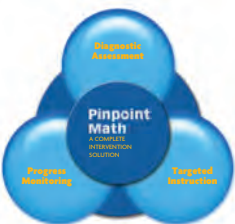
If students confuse *commutative* and *associative*, help students relate *commute*, as in go back and forth, or change places, to *commutative*; and *associate*, or get together with someone, with *associative*. Relate these terms to the properties.

A Model It Small groups or pairs of students use manipulatives or hands-on materials; teachers help as needed.

Activate Prior Knowledge Every lesson includes suggestions so a teacher can determine what individual students already know about a particular mathematical subject.

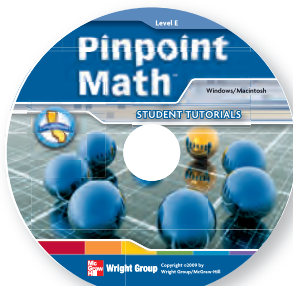
Teacher notes recommend demonstrations using models and manipulatives to clarify the processes and concepts in a lesson.

Understand It



B
Understand It
Pairs or individual students complete pages with little teacher help.

Develop Academic Language
Again, the Teacher's Guide provides suggestions for students that will help improve their vocabulary.



Student Tutorials

Lesson 9-1

Properties of Addition

B

Understand It

Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

Facilitate Student Understanding

Develop Academic Language

Provide a number of sentences such as $9 + 8 = 8 + 9$ and $(3 + 8) + 6 = 3 + (8 + 6)$. Have students identify which property each sentence illustrates.

ENGLISH LEARNERS To reinforce the new terminology, create a poster or chart with examples of each property labeled. As you identify the properties illustrated by the sentences, remind students that order is changed or grouping is changed.

In some languages, the property names are cognates, such as the Spanish words *commutativo* and *asociativo*.

Demonstrate the Examples

Example 1 Draw two groups of MathFlaps on the board and illustrate that $6 + 7$ and $7 + 6$ are both 13. Have students write the two sentences that you have illustrated.

Example 2 Write $13 + 38 + 7$ on the board and ask students if there are any of the numbers that would be easy to add together. **13 and 7** Have a volunteer show how to use the commutative and associative properties to get the two numbers together.

Computer Tutorial



Some students may benefit from completing a computer tutorial before they attempt the Try It page. A list of the tutorials for each lesson can be found beginning on page xii in the front of this book.

Lesson 9-1

Properties of Addition

B

Understand It

Example 1
 The MathFlaps show $6 + 7 = 13$.
 $6 + 7 = 13$
 They also show $7 + 6 = 13$.
 $7 + 6 = 13$
 So, $6 + 7 = 7 + 6$.

Practice 1
 Write the number sentence shown.
 $4 + 8 = 12$
 Then write another sentence using the same MathFlaps.
 $8 + 4 = 12$
 So, $4 + 8 = 8 + 4$.

Example 2
 The properties of addition can be used to add mentally.
 $13 + 38 + 7$
 $= 13 + 7 + 38$ commutative property
 $= 20 + 38$ associative property
 $= 58$

Practice 2
 Use the properties of addition to help add.
 $6 + 29 + 44$
 $= 29 + 6 + 44$ commutative property
 $= 29 + 50$ associative property
 $= 79$

Try It Yourself
 Use the properties to add the following.
 $25 + 17 + 3 + 5$
 Use the commutative property and then the associative property to write $25 + 5 + 17 + 3 = (25 + 5) + (17 + 3) = 30 + 20 = 50$.

Write About It
 What number makes the sentence $35 + 7 = \underline{\hspace{1cm}} + 35$ true? Explain how you know.
 You can use the commutative property to write $35 + 7$ as $7 + 35$, so the missing number is 7.

Objective 9.1 Use the commutative and associative properties of addition to simplify mental calculations and to check results.

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Level G



Progress Monitoring

Which property of addition allows you to change the grouping without affecting the sum? **Associative property** Which property of addition allows you to change the order of the numbers being added without affecting the sum? **Commutative property**

Error Analysis

If students have difficulty remembering what the parentheses mean, give them several practice problems involving parentheses.

Lesson 9-1

Properties of Addition



Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

Observe Student Progress

Develop Academic Language

Exercise 1 Ask students what property is shown in this example. Write the word *commutative* on the board and have students pronounce it and then restate, in their own words, what the commutative property means.

ENGLISH LEARNERS Students may find it helpful to make cards with the words *commutative* and *associative* on the fronts and an illustration of the property on the backs.



Error Analysis

Exercise 2 Students may have difficulty determining the correct number if they are not sure what property is used in each case. Suggest they first decide which property is being illustrated and then determine what number is missing.

Exercise 3 Some students may assume that if parentheses appear in an expression, only the associative property is being used. In each case, suggest that students first identify how the numbers change before identifying the property.

Exercise 4 Have students compare answer choices B and C. Many students make errors because they do not observe that if only the order changes, it is not an example of the associative property.

Exercise 5 Students may also suggest grouping sums of 10, so they end up adding 9 and 1, 8 and 2, 7 and 3, 6 and 4, and finally 10 and 5.

Exercise 8 If students have difficulty with this problem, ask what number can be added to 254 to make it easier to work with. Review the term *break apart* as meaning expanded notation.

Lesson 9-1
Properties of Addition

1. Shade the MathFlaps in two ways to show $5 + 3 = 3 + 5$.

2. Write the missing number.

a. $4 + 9 = 9 + \underline{4}$

b. $6 + (\underline{8} + 7) = (6 + 8) + 7$

c. $\underline{23} + 38 = 38 + 23$

d. $12 + (15 + 13) = (\underline{12} + 15) + 13$

e. $12 + (7 + 9) = 12 + (9 + \underline{7})$

3. Identify the property used. Write C for commutative, A for associative, or B for both.

a. $8 + 3 = 3 + 8$ C

b. $6 + 3 + 4 = (6 + 4) + 3$ B

c. $(9 + 7) + 5 = 9 + (7 + 5)$ A

d. $(8 + 3) + 6 = (3 + 8) + 6$ C

4. Which sentence shows the associative property? Circle the letter of the correct answer.

A $14 + 24 = 24 + 14$

B $26 + (18 + 9) = 26 + (9 + 18)$

C $(12 + 16) + 4 = 12 + (16 + 4)$

D $(6 + 25) = (25 + 6)$

5. Use the properties to add.

$1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10$

Sample: Use the commutative and associative properties to write $(1 + 10) + (2 + 9) + (3 + 8) + (4 + 7) + (5 + 6) = 11 \times 5 = 55$.

6. Explain how you can use the associative and commutative properties to add the numbers 1 through 100.

Reorder and group the numbers: $(1 + 100) + (2 + 99)$, and so on, giving 50×101 as the answer.

7. Add from left to right. Then use the properties to check your work.

$63 + 78 + 52 + 2 + 7 + 8$

$210; (63 + 7) + (78 + 2) + (52 + 8)$

8. Explain how to break 306 apart and use the properties to add $254 + 306$.

$254 + 306 = 254 + 300 + 6$

$= 254 + 6 + 300$

$= (254 + 6) + 300 = 560$

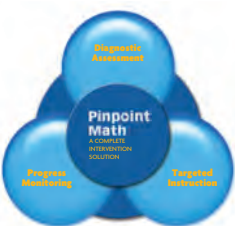
Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

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Level G

Student Booklet Page 61

C
Try It
Students complete pages independently.

English Learner Notes Many teaching notes point out words or phrases that may give English learners difficulties and suggest how to make these terms more accessible to EL students.



Assessment

Pinpoint Math incorporates formal and informal assessment throughout the program.

Pretests by volume and grade level

These diagnostic assessments include one or more items for all appropriate grade-level objectives. After taking the diagnostic, the teacher will be able to identify which objectives for that volume each student needs to master.

Topic
9

Basic Properties of Algebra
Topic Introduction

Complete with teacher help if needed.

1. Write the expression.

a. _____ white + _____ blue =

b. _____ blue + _____ white

2. Find the missing numbers.

a. _____ $\times$ 7 = 21

b. _____ $\times$ 3 = 21

c. _____ $\times$ 2 = 16

d. _____ $\times$ 8 = 16

Objective 9.1: Use the commutative and associative properties of addition to simplify mental calculations and to check results.

Objective 9.2: Recognize and use the commutative and associative properties of multiplication.

3. Use the distributive property to simplify the expression.

$8 \times (6 + 5)$

$= (8 \times \underline{\hspace{1cm}}) + (8 \times \underline{\hspace{1cm}})$

$= \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

$= \underline{\hspace{1cm}}$

4. Find $4 \times 2 \times 3$.

a. One way:

$(4 \times 2) \times 3 =$

$8 \times 3 =$

b. Another way:

$4 \times (2 \times 3) =$

$4 \times 6 =$

c. This shows the _____ property.

Objective 9.3: Know and use the distributive property.

Objective 9.2: Recognize and use the commutative and associative properties of multiplication.

Volume 2
58
Level G

Topic Introductions

These pages are designed to provide students and teachers with an overview of students' starting knowledge on a particular topic.

Topic
9

Basic Properties of Algebra
Mixed Review

1. Write the fact family for the numbers 3, 6, and 18.

$3 \times 6 =$ _____ $18 \div 6 =$ _____

$6 \times 3 =$ _____ $18 \div 3 =$ _____

Volume 1, Lesson 5-2

2. Multiply.

a. $32 \times 6 =$ _____

b. $421 \times 8 =$ _____

c. $3,765 \times 3 =$ _____

d. $8,240 \times 5 =$ _____

Volume 2, Lesson 7-3

3. Find the missing number.

a. $483 + \underline{\hspace{1cm}} = 826 + 483$

b. $6 + (4 + 3) = (\underline{\hspace{1cm}} + 4) + 3$

c. $1 + 2 + 9 = (9 + \underline{\hspace{1cm}}) + 2$

Volume 2, Lesson 9-1

4. Write the number in standard form.

a. 5 hundreds 4 ones _____

b. 1 thousand, 4 hundreds _____

c. 8 hundreds 6 tens 2 ones _____

Volume 1, Lesson 2-1

5. Use the model.

$4 \times \underline{\hspace{1cm}} + 4 \times \underline{\hspace{1cm}} = 4(5 + 3)$

$=$ _____

Volume 2, Lesson 9-3

6. Write the number shown by the model.

Volume 1, Lesson 1-3

7. Find the missing addend.

$6 + \underline{\hspace{1cm}} = 13$

A 2 B 3

C 7 D 19

Volume 1, Lesson 3-4

8. Ingrid says that 23 is a multiple of 3. Is she correct? Why or why not?

Volume 1, Lesson 4-3

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Level G

Objective: Maintain skills and concepts.

Mixed Reviews

These pages review content from earlier volumes, earlier topics, and earlier lessons within a topic.



Topic 9 Basic Properties of Algebra

Topic
9

Basic Properties of Algebra

Topic Summary

Choose the correct answer. Explain how you decided.

1. What is the product $8 \times 3 \times 5 \times 7$? Use the associative and commutative properties.

A 23
B 288
C 840
D 1,120

2. Solve $2(2 + 8) + 3(1 + 4)$. Use the properties to help.

A 35
B 19
C 31
D 20

Objective: Review the basic properties of algebra.

Volume 2
68
Level G

Topic Summaries

These pages are provided at the end of each topic; students answer and explain their reasoning for two questions that summarize the content of that topic.

Volume 2

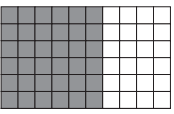
Whole Number Operations

TOPIC 9

Basic Properties of Algebra

Progress Monitoring Circle the letter of the correct answer.

1. Which expression shows the situation illustrated by the diagram?



A $6(6 + 4)$
B $4(6 + 10)$
C $6(10 + 4)$
D $10(6 + 4)$

2. Which of the following does **not** show the associative property of multiplication?

A $(4 \times 3) \times 9 = 4 \times (3 \times 9)$
B $(2 \times 4) \times 5 = 5 \times (2 \times 4)$
C $(3 \times 8) \times 4 = (8 \times 3) \times 4$
D $2 \times (5 \times 8) = (2 \times 5) \times 8$

3. Which property would you use to write $127 + 21 + 3 + 4$ as $127 + 3 + 21 + 4$?

A associative property of multiplication
B commutative property of addition
C commutative property of multiplication
D distributive property

4. What is $4(2 + 3) + 6(5 + 4)$?

A 74
B 45
C 43
D 22

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9
Level G

Progress Monitoring

Like the Topic Summaries, these pages in the Assessment Resources Book check student understanding of a topic before proceeding to the next topic or proceeding to the posttest for that volume.

Teacher Notes

The Teacher's Guide pages include Ongoing Assessment, Progress Monitoring, and Error Analysis notes that the teacher can apply to those students who need additional assistance.

Posttests by Grade Level and Volume

Each test includes one or more items for all appropriate grade-level objectives and is a parallel form to the pretest. If the student answers an acceptable number of items correctly, the student is ready to move on and take the pretest for the next volume.