Chapter 7

Subtraction: Two-Digit Numbers

Lesson	Topic	Lesson Objectives	Chapter Materials
54	**Two-Digit Subtraction; Estimation**	• Subtract 2-digit numbers without renaming • Write a subtraction equation to solve a word problem • Read a chart • Estimate the difference by rounding to the nearest ten	**Teacher's Visual Packet:** • Chart 8: *Line Graph* • Fraction Kit • Money Kit • Place Value Kit • Shapes Kit • Fact Family Flashcards • Number Line • Rulers: Centimeter Ruler
55	**Subtraction with Renaming**	• Rename 1 ten as 10 ones • Subtract a 1-digit number from a 2-digit number with renaming • Write a subtraction equation to solve a word problem • Solve a comparison word problem	**Student Manipulatives Packet:** • Money Kit • Place Value Kit • Shapes Kit • Tens/Ones Mat • Tens Bar Mat
56	**Two-Digit Subtraction with Renaming**	• Subtract 2-digit numbers with renaming • Write a subtraction equation to solve a word problem • Read a chart • Complete missing addend equations	• Red Mat • Fact Family Flashcards • Matt Clock • Rulers: Centimeter Ruler
57	**Rename 1 Dime as 10 Pennies**	• Rename 1 dime as 10 pennies • Separate a set of coins to subtract 2-digit numbers • Write a subtraction equation to solve a word problem • Identify word problems that have too little information	**Appendix:** • Tens/Ones Frame transparency (page A41) • Clock Number Line transparency (page A50) • Charts (page A57) for each student
58	**Subtract & Check; Line Graph**	• Subtract 2-digit numbers with renaming • Check a subtraction problem with addition • Read a line graph	• Subtraction Word Problems transparency (page A58) • Rainfall in India transparency (page A59) • More Word Problems transparency (page A60) • Café Basil Line Graph transparency (page A61)
59	**Subtract & Check; Identify the Equation**	• Subtract 2-digit numbers with renaming • Check a subtraction problem with addition • Identify the equation for a word problem • Solve a word problem	**Teacher's Toolkit CD:** • ReTeaching pages 26–28 • Enrichment pages 30–32 • Extended Activities
60	**Chapter 7 Review**	• Review	**Other:** • An apple • A paring knife
61	**Cumulative Review Test Day**	• Write the expanded form of a number • Read a bar graph • Solve a word problem using a bar graph • Match the number that is 10 more or 10 less	• A drinking glass with ice cubes in it • A calculator for each student • Judy Clock (or Chart 4: *Clock*) • Unifix cubes

Objectives
- Subtract 2-digit numbers without renaming
- Write a subtraction equation to solve a word problem
- Read a chart
- Estimate the difference by rounding to the nearest ten

Teacher Materials
- Fact Family Flashcards: 5-7-12, 6-6-12, and previously memorized fact families
- Place Value Kit: tens, ones
- Number Line

Student Materials
- Fact Family Flashcards: 5-7-12, 6-6-12
- Tens/Ones Mat
- Place Value Kit: tens, ones
- Charts: Average Temperature (Appendix page A57)

Notes
The pronunciations of the cities on the Average Temperature Chart follow: *Bangalore* (băng gə lôr), *Jaipur* (jī pŏŏr), and *New Delhi* (děl ē).

Preview the ReTeaching pages 26–28 and the Enrichment pages 30–32 located on the Teacher's Toolkit CD.

All problems in this chapter should be written vertically. All word problem equations should be written horizontally.

When directing your students to write problems on paper, follow the format used in the worktext. Instruct them to draw Tens/Ones frames and/or renaming boxes when they are used on the worktext page.

Practice and Review

Identify the number that comes *before* a number
1. Distribute the Number Cards 0–9. Write 58 for display.
   ▶ What number comes before 58? *57*
   Use your Number Cards to write the number.
   Point out that 57 is 1 less than 58.
2. Repeat the procedure with 13 *12*, 90 *89*, and 71 *70*.

Identify the number that comes *after* a number
1. Write 33 for display.
   ▶ What number comes after 33? *34*
   Use your Number Cards to write the number.
   Point out that 34 is 1 more than 33.
2. Repeat the procedure with 19 *20*, 55 *56*, and 97 *98*.

Memorize fact families: 5-7-12 and 6-6-12
1. Display your Fact Family Flashcards 5-7-12 and 6-6-12. Call on students to give the fact family equations.
   5-7-12 *5 + 7 = 12, 7 + 5 = 12, 12 − 5 = 7, 12 − 7 = 5*
   6-6-12 *6 + 6 = 12; 12 − 6 = 6*
2. Use the Fact Family Flashcards included in this lesson and in previous lessons to review addition and subtraction facts. Distribute Fact Family Flashcards 5-7-12 and 6-6-12 to each student to study.

Introduce the Lesson
Direct attention to the picture on Worktext page 108. Read aloud the theme story on page 121 of the Chapter 7 Overview.
▶ How did Matt help the people of Raman's village? *He helped rebuild the damaged huts.* [BAT: 2b Servanthood]

Teach for Understanding

Read a chart and write a subtraction equation
Subtract 2-digit numbers without renaming
1. Distribute the Tens/Ones Mats, Place Value Kits, and Average Temperature Chart pages. Demonstrate each problem on a Tens/Ones frame as the students solve the problem on their mats.
   ▶ What temperature is shown for Jaipur in April? *99°*
   ▶ What temperature is shown for Jaipur in December? *75°*
   ▶ How can we determine the difference in the temperature for April and December? *subtract*
2. Write 99 − 75 in another Tens/Ones Frame.
   ▶ How is solving a subtraction problem different from solving an addition problem on your mat? *For an addition problem, both numbers are placed on the mat, and the groups of ones and tens are joined together. For subtraction, only the first number is placed on the mat, and then the tens and/or ones in the second number are removed.*
   ▶ What number should you show on your mat? *99* Place 9 tens and 9 ones on your mat.
   ▶ What number are we subtracting from 99? *75*
3. Explain that when subtracting, the ones should always be subtracted first; then the tens should be subtracted.
   ▶ How many ones are in 75? *5* Subtract 5 ones from the Ones place on your mat.
   ▶ How many ones are on your mat now? *4* Write 4 in the Ones place of the problem.
   ▶ How many tens are in 75? *7* Subtract 7 tens from the Tens place on your mat.
   ▶ How many tens are on your mat now? *2* Write 2 in the Tens place.
   ▶ What is 2 tens and 4 ones? *24*
   ▶ What is the difference in the temperature of Jaipur in April and December? *24°*
   Tell the students that the answer to a subtraction problem is called the *difference*.
4. Repeat the procedure using the Average Temperature Chart and these problems. The students may solve the problems in the work space to the right of the chart.
   ▶ In December how much warmer is the temperature in Bangalore than in New Delhi? *79° − 73° = 6°*
   ▶ What is the difference in the temperature in New Delhi for April and December? *97° − 73° = 24°*

Estimate by rounding to the nearest ten
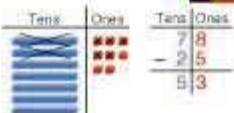▶ What do we call an answer that is not an exact answer but close to the answer? *an estimation*
1. Explain that estimating is a good way to think about the numbers before you subtract them in order to help you know whether your exact answer makes sense. Elicit that rounding to the nearest ten is one way of *estimating*; it is telling which decade number a given number is closer to.
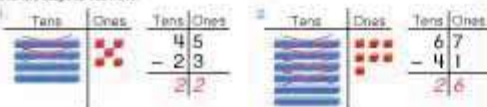
Two-Digit Subtraction; Estimation

Worktext page 109 (Chapter 7)

Worktext page 110 (one hundred ten)

▸ Do you remember what the decade numbers are? *10, 20, 30, 40, 50, 60, 70, 80, 90, 100*

2. Display the Number Line and write this problem under it.

$$58 \rightarrow 60$$
$$-12 \rightarrow -10$$
$$\;50$$

▸ Is 58 closer to 50 or 60? *60*
Write 60 after the arrow next to 58.
▸ Is 12 closer to 10 or 20? *10*
Write −10 after the arrow next to 12.
▸ What is 60 − 10? *50*
Write the answer.
▸ What is the estimate of 58 − 12? *50*

3. Solve the problem subtracting the ones and then the tens.
▸ What is the exact answer? *46*
▸ Is 46 a reasonable answer? *yes*

4. Repeat the procedure using these subtraction problems. Emphasize that the estimate helps you to know whether your exact answer is a reasonable answer.
(*Note:* On the Worktext pages the estimating activity is separate from the computation problems.)

$35 \rightarrow$	*40*	$59 \rightarrow$	*60*	$44 \rightarrow$	*40*
$-15 \rightarrow$	*−20*	$-36 \rightarrow$	*−40*	$-11 \rightarrow$	*−10*
20	*20*	*23*	*20*	*33*	*30*

Worktext pages 109–10

Read the directions and guide the completion of the pages.

Extended Activities

The activities that correlate with Chapter 7 are located on the Teacher's Toolkit CD.

Worktext pages 111–12

Correlated **Math Reviews** pages 107–8

Objectives
- Rename 1 ten as 10 ones
- Subtract a 1-digit number from a 2-digit number with renaming
- Write a subtraction equation to solve a word problem
- Solve a comparison word problem

Teacher Materials
- Fact Family Flashcards: 3-9-12, 4-8-12, and previously memorized fact families
- Tens/Ones Frame transparency (Appendix page A41)
- 6 bars of Unifix Cubes

Student Materials
- Fact Family Flashcards: 3-9-12, 4-8-12
- Tens/Ones Mat
- Ten Bar Mat
- 6 bars of Unifix Cubes

Note
You may use the Place Value Kit in place of the Tens/Ones transparency and the Unifix Cubes. Using the cubes will help the students better visualize the renaming of 1 ten as 10 ones.

Practice and Review

Add 10 using the Ten Bar
1. Distribute a Ten Bar Mat and 19 Unifix Cubes to each student.
2. Direct the students to place 1 cube in each space of the Ten Bar and 2 cubes below the Ten Bar.
▶ What equation can we write to find the total number of cubes? $10 + 2 = 12$
Allow a volunteer to write the equation for display. Then lead the students in reading it aloud.
3. Repeat the activity with the students placing 5 cubes below the Ten Bar $10 + 5 = 15$ and then 9 cubes $10 + 9 = 19$.
4. Call out these and similar facts for oral practice without Unifix cubes.
$10 + 1 = 11$ $10 + 4 = 14$ $10 + 7 = 17$

Memorize fact families: 3-9-12 and 4-8-12
1. Display your Fact Family Flashcards 3–9–12 and 4–8–12. Call on students to give the fact family equations.
3-9-12 $3 + 9 = 12, 9 + 3 = 12; 12 - 3 = 9, 12 - 9 = 3$
4-8-12 $4 + 8 = 12, 8 + 4 = 12; 12 - 4 = 8, 12 - 8 = 4$
2. Use the Fact Family Flashcards included in this lesson and in previous lessons to review addition and subtraction facts. Distribute Fact Family Flashcards 3-9-12 and 4-8-12 to each student to study.

Introduce the Lesson

1. Remind the students that Ringama, the peacock, was created by God with beautiful feathers and other special traits. Explain that like Ringama, we are specially created by God with certain traits or abilities that are different from everyone else's. [BAT: 3a Self-concept; Bible Promise: I. God as Master]
▶ How should we use our talents and abilities?

2. Point out that because God gave us our abilities we should thank Him for them and use them to help others. [BAT: 2b Servanthood]

▶ Teach for Understanding ◀

Rename 1 ten as 10 ones
1. Place 5 bars of cubes in the Tens column and 6 single cubes in the Ones column of the Tens/Ones Frame transparency.
▶ How many cubes are there? 56
▶ What is a quick way to count the cubes? Count the bars by tens and then count on the ones.
▶ How many tens and ones are in 56? 5 tens, 6 ones
2. Remove 1 bar of cubes, unsnap the cubes, and place the 10 ones on the Ones side of the mat.
▶ How many cubes are there now? Elicit that there are still 56 cubes.
Explain that unsnapping 1 ten and placing the cubes on the Ones side is the same as renaming 1 ten as 10 ones.
▶ How many tens are there now? 4
▶ How many ones are there? 16
3. Write 56 in a Tens/Ones frame with a renaming box in each column.
▶ How did we get more ones in the Ones column? renamed 1 ten as 10 ones
▶ When we renamed 1 ten, how many tens were left in the Tens column? 4
Cross out the number 5 and write a 4 in the box above the Tens column.
▶ We renamed 1 ten as 10 ones. What is 10 ones + 6 ones? 16 ones
Cross out the number 6 and write 16 in the box above the Ones column.
4. Distribute the Tens/Ones Mats and Unifix Cubes. Repeat the activity with 43 4 tens 13 ones, 60 5 tens 10 ones, and 31 2 tens 11 ones. Guide the students through the renaming process on their mats as you demonstrate it on the transparency.

Tens	Ones
⁴ 5	¹⁶ 6

Subtract a 1-digit number from a 2-digit number with renaming
1. Read the word problem.

> In an Indian craft shop, Matt bought 25 fans made from peacock feathers. He plans to give 8 of the fans to his family. How many fans will Matt have left?

▶ What is the question? How many fans will Matt have left?
▶ What information is given? Matt bought 25 fans and plans to give 8 to his family.
▶ Do you add or subtract? subtract
▶ What equation do you use? $25 - 8$
2. Write $25 - 8$ in a Tens/Ones frame with a renaming box in each column.
▶ When showing any subtraction problem, which number do you show on your mat? the first number
Place the cubes on your mat to show 25. 2 tens, 5 ones
▶ How many ones do we need to subtract? 8
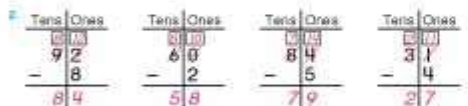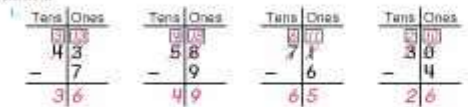▶ Can we subtract 8 ones from 5 ones? no

Subtraction with Renaming

Name _____

Remember: When there are not enough ones, rename 1 ten as 10 ones.

Tens	Ones
	●●● ●

	Tens	Ones
	3	4
−		6

Subtract the ones.
Subtract the tens.

Subtract.

1.
Tens	Ones
4	3
−	7
3	6

Tens	Ones
5	8
−	9
4	9

Tens	Ones
7	1
−	6
6	5

Tens	Ones
3	0
−	4
2	6

2.
Tens	Ones
9	2
−	8
8	4

Tens	Ones
6	0
−	2
5	8

Tens	Ones
8	4
−	5
7	9

Tens	Ones
3	1
−	4
2	7

Write an equation for the word problem. Solve and label.

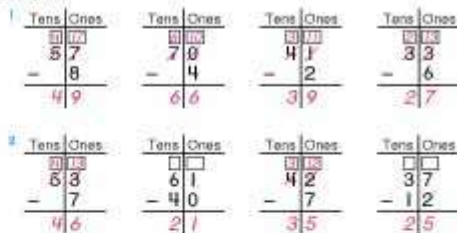3. Matt and Paddy took 48 Bibles to give to people in India. They gave away 9 Bibles at one church. How many Bibles did they have left?

Tens	Ones
4	8
−	9
3	9

$48 - 9 = 39$ Bibles

one hundred eleven **111**

Subtract.

1.
Tens	Ones
5	7
−	8
4	9

Tens	Ones
7	0
−	4
6	6

Tens	Ones
4	1
−	2
3	9

Tens	Ones
3	3
−	6
2	7

2.
Tens	Ones
5	3
−	7
4	6

Tens	Ones
6	1
−	4 0
2	1

Tens	Ones
4	2
−	7
3	5

Tens	Ones
3	7
−	1 2
2	5

Write an equation for the word problem. Solve and label.

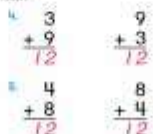3. Paddy found 31 peacock feathers. Matt found 4 feathers. How many more feathers did Paddy find?

Tens	Ones
3	1
−	4
2	7

$31 - 4 = 27$ feathers

The peacock is the national bird of India.

Review: Fact Families

Add.

4.
$$3 + 9 = 12$$
$$9 + 3 = 12$$

5.
$$4 + 8 = 12$$
$$8 + 4 = 12$$

Subtract.

6.
$$12 - 3 = 9$$
$$12 - 9 = 3$$

7.
$$12 - 8 = 4$$
$$12 - 4 = 8$$
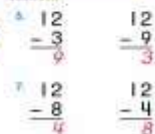
112 one hundred twelve

▶ What do we need to do? *rename 1 ten as 10 ones* Take a bar of 10 cubes, break them apart, and put them in the Ones column.

▶ How many tens are there now? *1*

▶ How many ones are there? *15 ones*

3. Show the renaming of the problem in the Tens/Ones frame: cross out the 2 on the Tens column and write 1 in the renaming box above; cross out the 5 on the Ones column and write 15 in the box above.

▶ Subtract 8 ones. How many ones are left? *7*

▶ What is the next step? *Subtract the tens.* Point out that there are no tens in the number 8, so there are 0 tens to subtract.

▶ Subtract 0 tens from 1 ten. How many tens are left? *1*

▶ How many fans will Matt have left? *17 fans* Complete the equation.

4. Repeat the activity with $38 - 9 = 29$ and $50 - 9 = 41$.

Solve a comparison word problem

1. Read the word problem.

In a cafe in India, there were 37 people drinking coffee. There were 9 people drinking tea. How many more people were drinking coffee than were drinking tea?

▶ What is the question? *How many more people were drinking coffee than were drinking tea?*

▶ What is the information? *There were 37 people drinking coffee and 9 drinking tea.*

▶ Do you add or subtract? *Elicit that to find out how many more is in one group than another, you subtract.*

▶ What equation will you use to compare these numbers? *37 − 9*

2. Write $37 - 9$ in a Tens/Ones frame with renaming boxes in both columns.

3. Direct the students to write the problem on paper and to solve it.

▶ How many more people were drinking coffee than tea? *28 people*

4. Repeat the activity with this word problem, asking how many *fewer* people were eating spaghetti.

At the birthday party 27 people ate pizza and 9 people ate spaghetti. How many fewer people were eating spaghetti? *27 − 9 = 18 people*

✏ **Worktext pages 111–12**

Read the directions and guide the completion of the pages.

▪ ▪ **Chapter** Review ▪ ▪

Objectives
- Estimate the difference by rounding to the nearest ten
- Rename 1 ten as 10 ones
- Subtract 2-digit numbers with renaming
- Solve word problems: comparison, missing addend, take away
- Identify word problems that have too little information

Teacher Materials
- Tens/Ones Frame transparency (from Lesson 55)
- More Word Problems transparency (Appendix page A60)
- Cafe Basil Line Graph transparency (Appendix page A61)
- 5 bars of Unifix Cubes and 3 single cubes

Notes
Estimating by rounding is reviewed in this lesson even though it is not included on Worktext pages 121–22 or the Chapter 7 Test.

Fact Reviews for each group of facts are provided on the Teacher's Toolkit CD.

This lesson reviews concepts presented in Chapter 7 to prepare students for the Chapter 7 Test. Worktext pages 121–22 and Math Reviews pages 117–18 provide the students with an excellent study guide.

Practice (and) Review

Study addition and subtraction facts
Select an activity from the Fact Fun on Appendix pages A11–A13.

Count 500–600
Arrange the students in 2 groups. Instruct Group 1 to begin counting with the number 500 and to continue counting until you clap your hands. Instruct Group 2 to count on from the last number counted by Group 1 until you clap your hands again. Continue alternating groups until you reach 600.

√ Check for Understanding

Estimate by rounding to the nearest ten
▸ What do we call an answer that is not an exact answer but close to the answer? *an estimation*
▸ What are the decade numbers? *10, 20, 30, 40, 50, 60, 70, 80, 90, 100*

1. Write this problem for display. Demonstrate each step.

   76 → 80
   − 42 → − 40
   ‾‾‾‾   ‾‾‾‾
             40

   ▸ What decade number is 76 closer to? *80*
   ▸ What decade number is 42 closer to? *40*
   ▸ What is 80 − 40? *40*
   Write the answer.
   ▸ What is the estimate of 76 − 42? *40*

2. Repeat the procedure with these problems.

   29 → 30   62 → 60
   − 12 → − 10   − 54 → − 50
   ‾‾‾‾   ‾‾‾‾   ‾‾‾‾   ‾‾‾‾
            20   10

Rename 1 ten as 10 ones
1. Show 5 bars of Unifix Cubes and 3 single cubes on the Tens/Ones Frame transparency. Demonstrate each step.
   ▸ What number is shown? *53*
   ▸ How many tens and ones are in 53? *5 tens and 3 ones*
   ▸ How do we rename 1 ten of 53? *rename 1 ten as 10 ones*
   ▸ How many tens and ones do we have now? *4 tens, 13 ones*
   ▸ What number is shown now? *53; elicit that there are still 53 cubes.*

2. Repeat the procedure with 30. *3 tens, 0 ones renamed as 2 tens, 10 ones*

Subtract 2-digit numbers with renaming
1. Write 36 − 8 with 2 renaming boxes. Demonstrate each step.
   ▸ What do you do first? *subtract the ones*
   ▸ What is 8 ones subtracted from 6 ones? *You must rename first and then subtract.*
   ▸ Why is renaming needed? *There are not enough ones in the top number to subtract 8 ones.*
   ▸ How do you rename? *rename 1 ten as 10 ones*
   ▸ What is 8 ones subtracted from 16 ones? *8 ones*
   ▸ What do you do next? *subtract the tens*
   ▸ What is 0 tens subtracted from 2 tens? *2 tens*
   ▸ What is 36 − 8? *28*

2. Direct the students to solve each of these problems on paper as a student solves the problem written for display.

70	83¢	45
− 34	− 15¢	− 6
36	68¢	39

Solve subtraction word problems
Identify problems with too little information
1. Display the More Word Problems transparency. Read the first word problem.
   ▸ What is the question? *How many bicycles are left for Raman's friend to sell?*
   ▸ What information is needed to write the equation? *how many bicycles Raman's friend had for sale and how many bicycles he had sold*
   ▸ Is there enough information given in the word problem to write the equation? *yes*
   ▸ Do you add or subtract? *Elicit that when you are finding out how many are left, you subtract.*
   ▸ What equation can we write to find the answer? *54 − 39 =*

2. Write 54 − 39 = in the equation box under the word problem. Direct the students to write the problem in vertical form on paper and solve it as you demonstrate the problem in the work space.
   ▸ How many bicycles does Raman's friend have left to sell? *15* Complete the equation with the label, *15 bicycles*.

3. Read the second word problem.
   ▸ What is the question? *How many fully grown tigers are at the zoo?*
   ▸ What information is needed to write an equation? *how many tigers are cubs and how many tigers there are altogether*
   ▸ Is there enough information given in the word problem to write the equation? *yes*
   Elicit that you should use a missing addend equation to solve this problem.
   ▸ What missing addend equation can we write to solve the problem? *15 + __ = 23*

Worktext page reproduction (left)

Subtract.

1.
$\begin{array}{r}5\!\!1\\-26\\\hline 25\end{array}$	$\begin{array}{r}67\\-\ 8\\\hline 59\end{array}$	$\begin{array}{r}49\\-17\\\hline 32\end{array}$	$\begin{array}{r}83\\-\ 9\\\hline 74\end{array}$	$\begin{array}{r}94\\-49\\\hline 45\end{array}$

Write an equation for each word problem. Solve and label.

2. Matt saw 31 camels and 16 elephants while he was in India. How many more camels than elephants did he see?

$$31 - 16 = 15 \text{ camels}$$

$\begin{array}{r}31\\-16\\\hline 15\end{array}$

3. Maya fixed meals for 36 workers. She made 23 bowls of rice. How many more bowls of rice does she need to fix?

$$36 - 23 = 13 \text{ bowls}$$

$\begin{array}{r}36\\-23\\\hline 13\end{array}$

4. Raman Li has 54 bundles of thatch. Matt needs 36 of those bundles to fix the roofs. How many bundles will Raman have left?

$$54 - 36 = 18 \text{ bundles}$$

$\begin{array}{r}54\\-36\\\hline 18\end{array}$

5. Raman is inviting 62 friends to see his new home. He has already invited 37 friends. How many friends does Raman still need to invite?

$$62 - 37 = 25 \text{ friends}$$

$\begin{array}{r}62\\-37\\\hline 25\end{array}$

Worktext page reproduction (right)

Subtract.

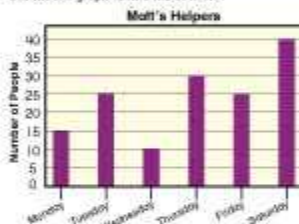| $\begin{array}{r}65¢\\-48¢\\\hline 17¢\end{array}$	$\begin{array}{r}98¢\\-33¢\\\hline 65¢\end{array}$	$\begin{array}{r}40¢\\-26¢\\\hline 14¢\end{array}$	$\begin{array}{r}72¢\\-\ 6¢\\\hline 66¢\end{array}$	$\begin{array}{r}31¢\\-15¢\\\hline 16¢\end{array}$

Add.

$\begin{array}{r}59\\+24\\\hline 83\end{array}$	$\begin{array}{r}32\\+18\\\hline 50\end{array}$	$\begin{array}{r}47\\+\ 5\\\hline 52\end{array}$	$\begin{array}{r}76\\+23\\\hline 99\end{array}$	$\begin{array}{r}28\\+37\\\hline 65\end{array}$

Use the bar graph to find the answers.

Matt's Helpers

8. How many helpers did Matt have on Thursday?
30

9. On which days did Matt have the same number of helpers?
Tuesday and Friday

10. On which day did Matt have the least number of helpers?
Wednesday

Write an equation to find the answers. Solve and label.

11. How many helpers were there on Monday and Wednesday altogether?

$$15 + 10 = 25 \text{ helpers}$$

$\begin{array}{r}15\\+10\\\hline 25\end{array}$

12. How many more helpers were there on Saturday than on Friday?

$$40 - 25 = 15 \text{ helpers}$$

$\begin{array}{r}40\\-25\\\hline 15\end{array}$

Teacher's guide text

4. Write 15 + __ = 23 in the equation box under the word problem.
▶ How can we find the missing addend? *We can use the related subtraction problem 23 − 15.*

5. Direct the students to write the subtraction problem on paper. Demonstrate each step as they solve it.
▶ How many fully grown tigers are at the zoo? *8*
Complete the equation with the label, *8 fully grown tigers.* Write the label below the 8.

6. Read the third word problem.
▶ What is the question? *How many more two-room huts than one-room huts did Matt see?*
▶ What information is needed to write the equation? *how many two-room huts there are and how many one-room huts there are*
▶ Is there enough information given in the word problem to write the equation? *yes*
▶ What equation can we write to solve the problem? *25 − 16 =*

7. Write 25 − 16 = in the equation box under the word problem. Direct the students to write the problem in vertical form on paper. Guide them as they solve it.
▶ How many more two-room huts than one-room huts did Matt see? *9*
Complete the equation with the label, *9 two-room huts.*

8. Read the last word problem.
▶ What is the question? *How many more wheelbarrows of mud does Paddy need?*
▶ What information is needed to write an equation? *how many wheelbarrows of mud Paddy needs to get altogether and how many wheelbarrows of mud Paddy gathered on Thursday*
▶ Is there enough information given in the word problem to write the equation? *no*

▶ What information is missing? *how many wheelbarrows of mud Paddy needs to gather altogether*

Read a line graph

1. Display the Café Basil Line Graph transparency. Explain that this line graph shows the number of bowls of rice served at the Café Basil.
▶ What is printed across the bottom of the graph? *"A Week in October" and the days of the week—Monday through Saturday*

2. Point out that a different day is printed at every vertical (up and down) line.
▶ Why do you think there isn't a Sunday listed on the graph? *Elicit that the café is not open on Sunday.*
▶ What is printed on the left side of the graph? *"Bowls of Rice" and numbers*
Explain that these numbers represent the number of bowls of rice served each day.
▶ What do you notice about the numbers? *They are written by 5s from 30 to 75.*
▶ On what day were the most bowls of rice served? *Saturday*
▶ How many bowls were served on Saturday? *70*
▶ On which day were the least number of bowls served? *Wednesday*
▶ How many bowls of rice were served on Wednesday? *35*
▶ On which 2 days were the same number of bowls of rice served? *Tuesday, Thursday* How many were served each day? *50*

Worktext pages 121–22

Read the directions and guide the completion of the pages.

Worktext page 123

Correlated Math Reviews pages 119–20

· · Cumulative Review · ·

Objectives
- Write the expanded form of a number
- Read a bar graph
- Solve a word problem using a bar graph
- Match the number that is 10 more or 10 less

Teacher Materials
- Clock Number Line transparency (Appendix page A50) (optional)
- Judy Clock (or Chart 4: Clock)

Student Materials
- Matt Clock

Practice and Review

Determine the time elapsed
1. Distribute the Matt Clocks. Read the word problem. Demonstrate each step on the Judy Clock (or the Clock chart).

> Matt and Paddy ate lunch at 1:00. They ate supper at 6:00. How much time passed between the time Matt and Paddy ate lunch and the time they ate supper?

▸ What time did Matt and Paddy start eating lunch? *1:00*
2. Instruct the students to set their clocks for 1:00.
▸ What time did they eat supper? *6:00*
3. Direct the students to move the minute hand around the clock until it shows 6:00, counting the hour each time the minute hand points to the 12.
▸ How much time passed from the beginning of lunch until the beginning of supper? *5 hours*
4. Follow the same procedure with these problems. If the students have difficulty, you may want to use either 2 clocks to demonstrate the elapsed time or the Clock Number Line transparency.

> Paddy began taking a nap at 1:30. He got up at 2:00. How long did Paddy nap? *30 minutes*

> Matt began patching the wall of a thatched hut at 3:00. He finished in time for supper at 5:00. How long did Matt work on the wall? *2 hours*

Study addition and subtraction facts
Select an activity from the Fact Fun on Appendix pages A11–A13.

Review for Mastery

Worktext page 123

Use the page to review concepts taught in previous lessons. You also may use it to reteach concepts to students who are having difficulty.

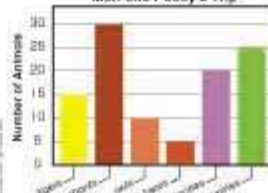---

Cumulative Review Name _____

Write the expanded form for each number.

1. 83 = _8_ tens _3_ ones = _80_ + _3_
2. 57 = _5_ tens _7_ ones = _50_ + _7_
3. 94 = _9_ tens _4_ ones = _90_ + _4_
4. 49 = _4_ tens _9_ ones = _40_ + _9_
5. 78 = _7_ tens _8_ ones = _70_ + _8_
6. 36 = _3_ tens _6_ ones = _30_ + _6_

Use the bar graph to find the answers.

Matt and Paddy's Trip

7. Which animal did Matt and Paddy see the least?
   sloth bears

8. How many porcupines did they see?
   25

9. Write an equation to show how many more tigers than owls they saw. Label.
   15 – 10 = 5 tigers

Fill in the circle beside the number that is 10 more or 10 less.

10 more	10 less
10. 35 ○40 ●45 ○50	13. 56 ○36 ○40 ●46
11. 29 ●39 ○30 ○19	14. 73 ○83 ○75 ●63
12. 44 ○40 ○45 ●54	15. 81 ●71 ○78 ○80

one hundred twenty-three   123

Problem-Solving Challenge

Worktext pages 345–46

1. Ask these questions as you lead the students in completing the first problem in each row on page 345.
▸ 8 minus what number equals 0? *8*
▸ 9 minus what number equals 5? *4*
▸ What number minus 6 equals 1? *7*
▸ 8 minus what number equals 3? *5*
▸ What number minus 5 equals 2? *7*
▸ What number minus 2 equals 5? *7*
2. Guide the students through the first example in each section (problems 1 and 4) on page 346. Direct them to finish the pages independently.