

Chapter 3: Addition and Subtraction

1. Calculate.

a) $23 + 45$

e) $78 - 9$

b) $39 + 223$

f) $65 - 27$

c) $367 + 33$

g) $741 - 36$

d) $459 + 259$

h) $543 - 372$

2. Ned has 16 pencil crayons. He needs 28 to fill his box.
How many more pencil crayons does he need?

3. Complete each number sentence.

a) $8 + \underline{\quad} = 15$

d) $\underline{\quad} + 12 = 80$

b) $29 + 16 = \underline{\quad}$

e) $99 + \underline{\quad} = 200$

c) $17 + \underline{\quad} = 29$

f) $77 - \underline{\quad} = 54$

Name: _____ Date: _____

4. The school long jump record is 485 cm. Eric jumped 369 cm. How much shorter was Eric's jump than the school record?

5. What is the missing number? Circle it.

$$\begin{array}{r} 4 \blacksquare 8 \\ + 179 \\ \hline 657 \end{array} \quad \begin{array}{cccc} 7 & 2 & 0 & 8 \end{array}$$

6. Calculate using mental math. Explain what you did.

a) $45 - 39 =$ _____

b) $98 - 97 =$ _____

c) $82 - 62 =$ _____

d) $81 - 73 =$ _____

7. Estimate, then calculate.

a) $38 + 92$ is about _____

c) $24 + 69$ is about _____

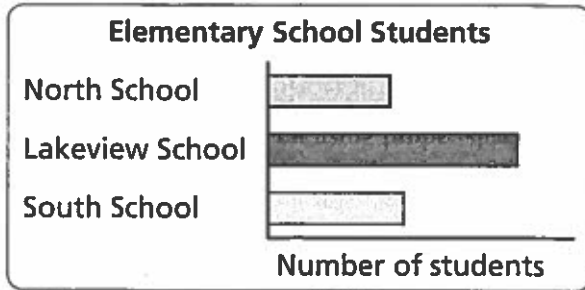
b) $92 - 38$ is about _____

d) $69 - 24$ is about _____

Scaffolding for Getting Started

STUDENT BOOK PAGES 66–67

North School has only 25 students.



? About how many students go to the 3 schools?

A. About how many students go to South School? about _____

Explain how you estimated. _____

B. About how many students go to Lakeview School? about _____

Explain how you estimated. _____

C. Estimate the total number of students at the 3 schools.

Use your answers from Steps A and B.

North School + South School + Lakeview School

_____ + _____ + _____

The total for the 3 schools is about _____ students.

D. Suppose North School had 50 students.

How would your answers to Steps A to C change?

North School has _____ students.

South School has about _____ students.

Lakeview School has about _____ students.

_____ + _____ + _____

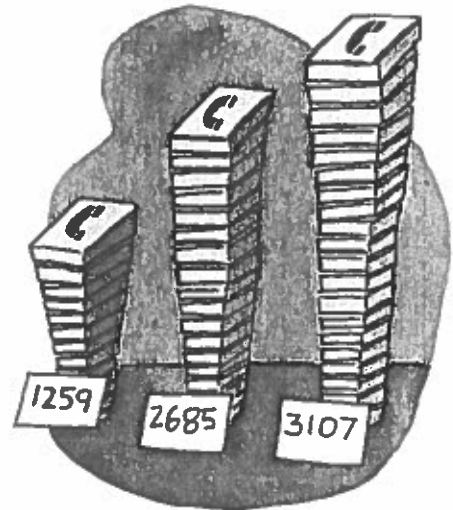
The total for the 3 schools is about _____ students.

Scaffolding for Lesson 4, Questions 3 & 6 Page 1

STUDENT BOOK PAGE 76

3. Three schools recycled telephone books to raise money.

a) How many telephone books did they recycle altogether? Estimate first. Explain your strategy.



Calculate.

	1	2	5	9	
	2	6	8	5	
+	3	1	0	7	
+					

b) Is your answer reasonable? How do you know?



Hint: Compare your answer to your estimate.

3.1 Solving Problems by Estimating Page 1

Student Book pages 68–69

GOAL
 Estimate sums of 2-digit numbers to solve problems.

You will need

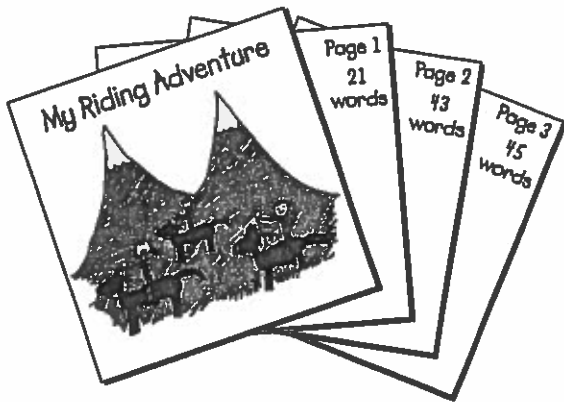
- base ten blocks 
- a place value chart 

Problem

Lang wrote a story.







His story has 3 pages.

- Page 1 has 21 words.
- Page 2 has 43 words.
- Page 3 has 45 words.



 Did Lang write more than 100 words?

Use base ten blocks to show the number of words on each page.

Hundreds	Tens	Ones	
			21
			43
			45

Step 1: Count the tens.
 How many tens are there? _____

L

Name: _____ Date: _____

3.1 Solving Problems by Estimating Page 2

Step 2: Does Lang need to count the ones to know if he has more than 100 words? _____

How do you know?

Did Lang write more than 100 words? _____

Reflecting

Jodi's story is 2 pages long.

Page 1 has 42 words.

Page 2 has 65 words.

How can Jodi find out if she wrote more than 100 words?

3.1 Solving Problems by Estimating Page 1

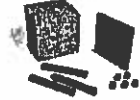
Student Book pages 68–69

GOAL

Estimate sums of 3-digit numbers to solve problems.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Checking

1. Maya wrote a story.

The first page had 275 words.

The second page had 250 words.

Does her story have more than 500 words?

Step 1: Circle the kind of answer you need: exact estimate

How do you know?

Step 2: Model 275 and 250 with base ten blocks.

Draw your models in the place value chart.

Number	Hundreds	Tens	Ones
275			
250			

Did Maya write more than 500 words? _____

How do you know?

3.1 Solving Problems by Estimating Page 2

Practising

4. Your school has \$800 to spend on a computer and a printer.

The computer costs \$575.

The printer costs \$275.

Does your school have enough money?



Step 1: **Circle** the kind of answer you need: exact estimate

Step 2: Estimate $575 + 275$.






Model the numbers using base ten blocks.

Draw your models.

Number	Hundreds	Tens	Ones
575			
275			

Does your school have enough money? _____

How do you know?

Thousands	Hundreds	Tens	Ones
	 <p>3 6</p>	 <p>5 4</p>	 <p>6 2</p>
	<p>9</p>	<p>9</p>	

Chapter 3
Lesson 1

Solving Problems by Estimating

GOAL

Estimate sums of 3-digit numbers to solve problems.

1. Use mental math to calculate the first sum.
Use that sum to estimate the next sum.

- a) $300 + 100 = \underline{400}$, so $298 + 105 =$ about 400
 b) $200 + 300 = \underline{\hspace{2cm}}$, so $202 + 298 =$ about
 c) $100 + 50 = \underline{\hspace{2cm}}$, so $96 + 53 =$ about
 d) $150 + 300 = \underline{\hspace{2cm}}$, so $161 + 288 =$ about

2. Estimate each sum. Show your work.

- a) $\textcircled{249} + \textcircled{199}$ is about $200 + 200 = 400$
 b) $\textcircled{96} + \textcircled{402}$ is about $100 + 400 =$
 c) $353 + 47$ is about
 d) $208 + 297$ is about

3. Cole's father saved $\textcircled{\$600}$ for furniture. He wants to buy a rug for \$277 and a lamp for \$303. Does he have enough money? Show your work.

$300 + 300 = 600$

277
303

T O
 □□ IIII
 □□□ II
 XXX
 XXX
 XXX

4. Kate made 200 brownies. She needs 145 brownies for a bake sale, and she needs 48 brownies for her class at school. Did she make enough brownies?

3.2 Estimating Sums Page 2

Estimate using a number line



Step 1: Find 210 on the number line.

200 is the closer hundred.

Step 2: 310 is close to 300.

Start at 200 and jump 300 m.

Aneela will run about _____ m.

Reflecting

How would you estimate $280 + 190$?

What other ways can you use to estimate sums?

3.2 Estimating Sums Page 1

Student Book pages 70–72

GOAL

Estimate sums in different ways.

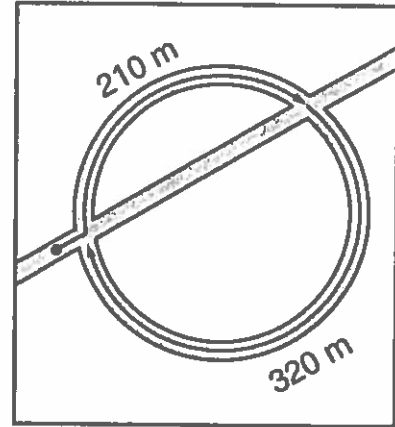
Problem

Aneela plans to run the route shown at the right.



About how far will Aneela run?

Use two ways to estimate.



Estimate by adding the hundreds.

Write the numbers in the place value chart.

The first one is done for you.

Number	Hundreds	Tens	Ones
210	2	1	0
320			

Circle the hundreds.

Add the circled hundreds.

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Aneela will run about _____ m.

3.2 Estimating Sums Page 2

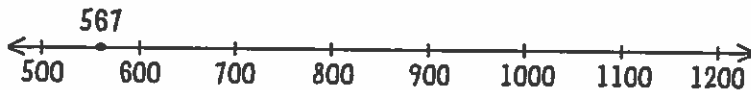
Practising

2. Estimate.

a) $567 + 513$

Add the closer hundreds using the number line.

Record all your jumps.



$567 + 513$ is about _____.

4. The chart shows the number of people who went to a 3-day folk festival.

Estimate the total attendance.

Day	Attendance
Thursday	899
Friday	1799
Saturday	2375

Circle the closer hundreds.

800 **899** 900

1700 **1799** 1800

2300 **2375** 2400

Add the circled numbers.

_____ + _____ + _____ = _____

About how many people attended the festival? _____

3.2 Estimating Sums Page 1

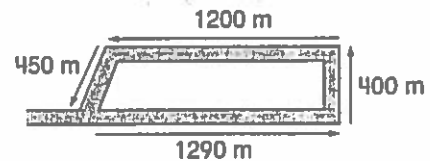
Student Book pages 70–72

GOAL

Estimate sums in different ways.

Checking

1. Kate plans to run the route shown at the right.



Estimate how far she will run by adding the thousands.

Write the numbers in the place value chart.

The first one is done for you.

Number	Thousands	Hundreds	Tens	Ones
400	0	4	0	0
1290				
450				
1200				

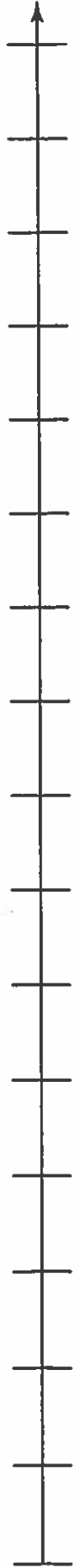
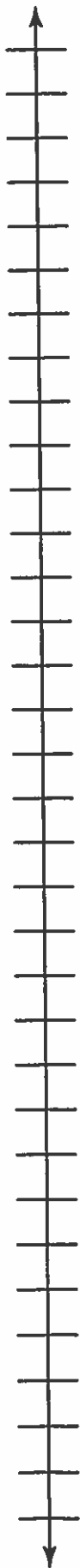
Circle the thousands.

Add the circled thousands.

_____ + _____ = _____

Kate will run about _____ m.

Explain one other way you could estimate how far Kate will run.



Chapter 3
Lesson 2

Estimating Sums

GOAL

Estimate sums in different ways.

1. Estimate each sum. Show your work.

a) $210 + 499$ is about _____

b) $589 + 308$ is about _____

c) $1072 + 994$ is about _____

d) $3987 + 2001$ is about _____

At-Home Help

Here are some ways to estimate sums.

- Use base ten blocks or counters to model the problem.
- Use a number line to model the problem.
- Estimate by adding the closer hundreds or thousands (e.g., 1130 is closer to 1000 than 2000).

2. Estimate each sum. Show your work.

a) $510 + 203 + 696$ is about _____

b) $1080 + 5098 + 2900$ is about _____

c) $929 + 1100 + 997$ is about _____

d) $2033 + 1002 + 1977$ is about _____

e) $3172 + 3030 + 2960$ is about _____

f) $1072 + 2908 + 3978$ is about _____

3. Jade wants to collect 8000 pennies, or \$80. She has a jar with 1048 pennies, a jar with 2083 pennies, and a jar with 3992 pennies. Does Jade have enough pennies? How do you know?

3.3 Exploring Addition and Subtraction

Student Book page 73

GOAL

Use your own strategies to add and subtract numbers to solve a problem.

Problem

Jade made jingle dresses for a powwow with her mother and sister.

They folded 100 pieces of metal into cones.

They sewed the cones onto 3 dresses.



How many cones were sewn on the mother's jingle dress?

Sister's dress



16 cones

Jade's dress



32 cones



cones

Use base ten blocks.

Step 1: Model 100 using 9 tens blocks and 10 ones blocks. Draw your model.

Hundreds	Tens	Ones

Step 2: Subtract the number of cones on the sister's jingle dress. To subtract 16, take away 1 ten and 6 ones. Draw your model.

Hundreds	Tens	Ones

Step 3: Subtract the number of cones on Jade's jingle dress. To subtract 32, take away 3 tens and 2 ones. Draw your model.

Hundreds	Tens	Ones

Step 4: Count the blocks that are left.

There are _____ cones on the mother's jingle dress.

3.3 Exploring Addition and Subtraction

Student Book page 73

GOAL

Use your own strategies to add and subtract numbers to solve a problem.

Jade made jingle dresses for a powwow with her mother and sister.

They folded 1000 metal lids into cones.

They sewed the cones onto 3 dresses.



How can you calculate the number of cones on the mother's jingle dress?



199 cones

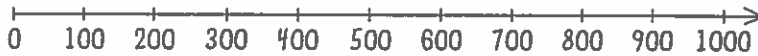


299 cones



_____ cones

Use a number line.



Step 1: Start at 1000 because there are 1000 cones in total.

Subtract the number of cones on the sister's dress.

Rename 199 as 200 – 1.

Subtract 200 now and add the 1 later.

Step 2: Subtract the number of cones on Jade's jingle dress.

Rename 299 as 300 – 1.

Subtract 300 now and add the 1 later.

Step 3: Add the 2 cones.

How many cones are on the mother's jingle dress? _____

What other strategies could you use to solve the problem?

Addition: Regrouping

Addition means "putting together" or adding two or more numbers to find the sum. For example, $3 + 5 = 8$. To regroup is to use ten ones to form one ten, ten tens to form one 100, and so on.

Directions: Add using regrouping.

Example:

Add the ones.

$$\begin{array}{r} 88 \\ +21 \\ \hline 9 \end{array}$$

Add the tens with regrouping.

$$\begin{array}{r} 88 \\ +21 \\ \hline 109 \end{array}$$



$$\begin{array}{r} 37 \\ +72 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ +67 \\ \hline \end{array}$$

$$\begin{array}{r} 51 \\ +88 \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ +55 \\ \hline \end{array}$$

$$\begin{array}{r} 70 \\ +68 \\ \hline \end{array}$$

$$\begin{array}{r} 93 \\ +54 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ +82 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ +77 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ +92 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ +71 \\ \hline \end{array}$$

$92 + 13 = \underline{\quad}$

$73 + 83 = \underline{\quad}$

$54 + 61 = \underline{\quad}$

The Blues scored 63 points. The Reds scored 44 points.
How many points were scored in all? _____

Chapter 3
Lesson 3

Exploring Addition and Subtraction

GOAL

Use your own strategies to add and subtract numbers to solve a problem.

Start at the beginning of the maze. When you come to a sum, solve it. Follow the correct answer. Can you reach the end?

START ↓

The maze contains the following mathematical problems and directional arrows:

- Top Left:**
$$\begin{array}{r} 606 \\ - 198 \\ \hline \end{array}$$
 with an arrow pointing right to 501.
- Middle Left:** 401 with an arrow pointing down.
- Middle Right:**
$$\begin{array}{r} 705 \\ - 296 \\ \hline \end{array}$$
 with an arrow pointing right to 901.
- Far Right (Top):**
$$\begin{array}{r} 3987 \\ - 2578 \\ \hline \end{array}$$
 with an arrow pointing up to 6000.
- Far Right (Middle):** 5000 with an arrow pointing down.
- Middle (Bottom):** 1001 with an arrow pointing down.
- Bottom Left:**
$$\begin{array}{r} 2057 \\ + 987 \\ \hline \end{array}$$
 with an arrow pointing right to 3004.
- Bottom Left (Bottom):** 2004 with an arrow pointing down.
- Bottom Middle:**
$$\begin{array}{r} 5110 \\ + 8892 \\ \hline \end{array}$$
 with an arrow pointing up to 9002.
- Bottom Middle (Bottom):** 8002 with an arrow pointing down.
- Bottom Right (Top):**
$$\begin{array}{r} 8032 \\ + 987 \\ \hline \end{array}$$
 with an arrow pointing right to 8019.
- Bottom Right (Middle):** 9019 with an arrow pointing down.
- Far Right (Bottom):** **END** with an arrow pointing right.

3.4 Adding from Left to Right Page 1

Student Book pages 74–76

GOAL

Solve addition problems by adding from left to right.

Problem

A forklift operator wants to lift 3 containers.
The forklift can safely lift up to 400 kg.

 Can the forklift safely lift all 3 containers?

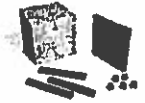
Use base ten blocks.

Step 1: Model each number with base ten blocks.

Draw your models.

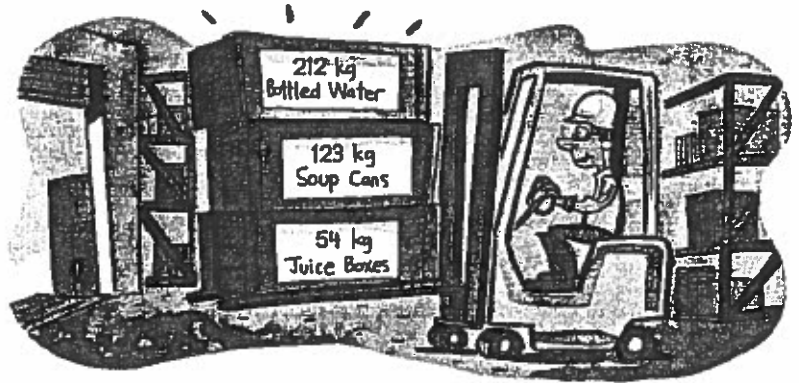
You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones



Hundreds	Tens	Ones

212

123

54

3.4 Adding from Left to Right Page 2

Step 2: Add the hundreds.

$$200 + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

Step 3: Add the tens.

$$10 + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

Step 4: Add the ones.

$$2 + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

Step 5: Add the hundreds, tens, and ones.

$$\underline{\quad\quad\quad} + \underline{\quad\quad\quad} + \underline{\quad\quad\quad} = \underline{\quad\quad\quad}$$

Can the forklift safely lift all 3 containers? _____

How do you know?

Reflecting

How could you have predicted whether the forklift could safely lift all 3 containers?

3.4 Adding from Left to Right Page 1

Student Book pages 74–76

GOAL

Solve addition problems by adding from left to right.

Checking

1. A forklift can lift 8000 kg safely.

The operator needs to lift 3 containers.

- Container 1 has a mass of 2455 kg.
- Container 2 has a mass of 849 kg.
- Container 3 has a mass of 4567 kg.

Can the 3 containers be lifted safely?



Step 1: Write the masses in the place value chart.

This Step has been done for you.

Mass		Thousands	Hundreds	Tens	Ones
2455		2			
849		0			
4567	+	4			
		6			
	+				

Step 2: Add from left to right. Write the totals in the table.

The thousands have been done for you.

3.4 Adding from Left to Right Page 2

a) Can the forklift lift all 3 containers? _____

How do you know?

b) Did you estimate to solve the problem or did you calculate an exact answer?

Explain.

Practising

6. Add from left to right.

a)

	1	2	5	9
+		6	1	8
+				

b)

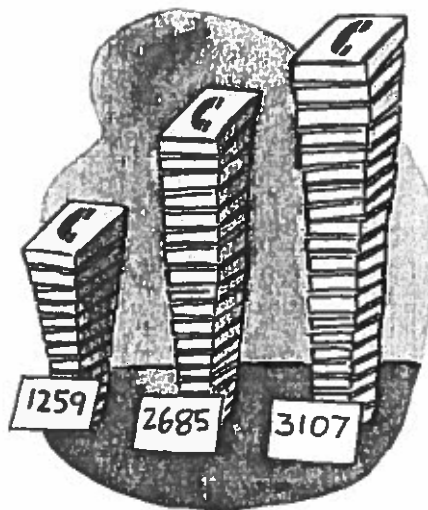
	6	9	6	3
+	2	3	6	4
+				

Scaffolding for Lesson 4, Questions 3 & 6 Page 1

STUDENT BOOK PAGE 76

3. Three schools recycled telephone books to raise money.

a) How many telephone books did they recycle altogether? Estimate first. Explain your strategy.



Calculate.

	1	2	5	9	
	2	6	8	5	
+	3	1	0	7	
+					

b) Is your answer reasonable? How do you know?

Hint: Compare your answer to your estimate.

Scaffolding for Lesson 4, Questions 3 & 6 Page 2

STUDENT BOOK PAGE 76

6. Calculate. Show your work.
Some of the steps are done for you.

a)

	1	2	5	9	
+		6	1	8	
<hr/>					
	1	0	0	0	
		8	0	0	
+					
<hr/>					

c)

	4	2	1	1	
		3	4	5	
+		9	6	7	
<hr/>					
	4	0	0	0	
		1	1	0	
+					
<hr/>					

b)

	6	9	6	3	
+	2	3	6	4	
<hr/>					
	8	0	0	0	
	1	2	0	0	
+					
<hr/>					

d)

	1	5	6	7	
	1	5	7	8	
+	2	5	6	7	
<hr/>					
	4	0	0	0	
+					
<hr/>					

Thousands	Hundreds	Tens	Ones

Chapter 3
Lesson 4

Adding from Left to Right

GOAL

Solve addition problems by adding from left to right.

1. Add from left to right. Show your work.

a)

	1	3	1	1
+		6	4	5

d)

	5	0	6	7
+	3	6	2	1

b)

	2	4	1	5
+	3	2	2	1

e)

	4	1	1	1
+	1	7	0	3

c)

	6	2	2	4
+	1	7	6	8

f)

	1	1	4	3
+		2	5	1
		4	0	2

At-Home Help

Follow these steps to add from left to right.

Step 1 Add the thousands.

Step 2 Add the hundreds.

Step 3 Add the tens.

Step 4 Add the ones.

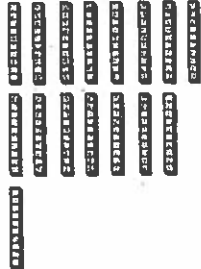
Step 5 Add them all together to calculate the sum.

For example:

$$\begin{array}{r}
 1\ 2\ 4\ 6 \\
 +\ 2\ 9\ 3\ 4 \\
 \hline
 3\ 0\ 0\ 0 \text{ (thousands)} \\
 1\ 1\ 0\ 0 \text{ (hundreds)} \\
 7\ 0 \text{ (tens)} \\
 +\ 1\ 0 \text{ (ones)} \\
 \hline
 4\ 1\ 8\ 0
 \end{array}$$

3.5 Adding From Right to Left Page 2

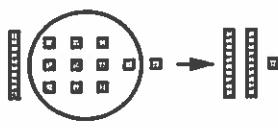
Step 3: Regroup the ones. Add a ten.

Hundreds	Tens	Ones
		

1			
8	5		
+	7	5	
		0	

regroup



Trade 10 smaller units for 1 larger unit, or 1 larger unit for 10 smaller units



Step 4: Add the tens.

_____ + _____ + _____ = _____

Step 5: Regroup the tens. Add a hundred.

Hundreds	Tens	Ones
		

Step 6: Add the blocks.

_____ + _____ + _____ = _____

Aneela's school needs _____ points.

Reflecting

How do you know when to regroup when you are adding from right to left?

3.5 Adding From Right to Left Page 1

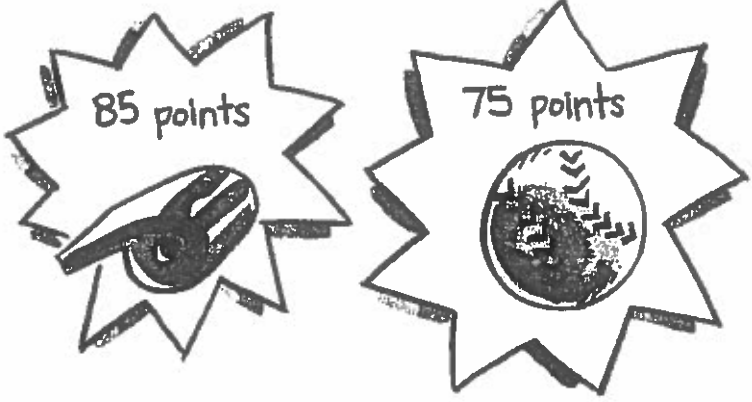
Student Book pages 78–80

GOAL

Solve addition problems by adding from right to left.

Problem

Aneela’s school collects food labels to get points. They can trade the points for school equipment.



You will need

- base ten blocks
- a place value chart

How many points does Aneela’s school need for the whistle and baseball?

Use base ten blocks.

Step 1: Model the numbers with base ten blocks.

Hundreds	Tens	Ones

	8	5		
	+	7	5	

Step 2: Add the ones.

_____ + _____ = _____

3.5 Adding from Right to Left Page 1

Student Book pages 78–80

GOAL

Solve addition problems by adding from right to left.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Checking

- A school wants to use points to get 3 books.

This table shows how many points the school needs to get each book.

Day	Number of points needed
Sports book	1825
Astronomy book	1175
Dinosaur book	825

How many points does the school need?

Step 1: Model the points needed for each book using base ten blocks.

Draw your models in the place value chart.

Thousands	Hundreds	Tens	Ones

	1	8	2	5
+	1	1	7	5
+		8	2	5

Step 2: Add the ones.

Do you need to regroup? _____

Step 3: Add the tens.

Do you need to regroup? _____

3.5 Adding from Right to Left Page 2

Step 4: Add the hundreds.

Do you need to regroup? _____

Step 5: Add the thousands.

Do you need to regroup? _____

How many points does the school need? _____

Practising

2. An online discussion group has a goal of 7500 postings.

The table shows how many postings it had.

Month	Number of postings
January	1535
February	2865
March	3145

Did the group reach its goal? _____

Add the numbers of postings from right to left.

+				
+				

Do you need to regroup? _____

Did the group reach its goal? _____

Name: _____ Date: _____

Scaffolding for Lesson 5, Question 3

STUDENT BOOK PAGE 80

3. Estimate each sum.

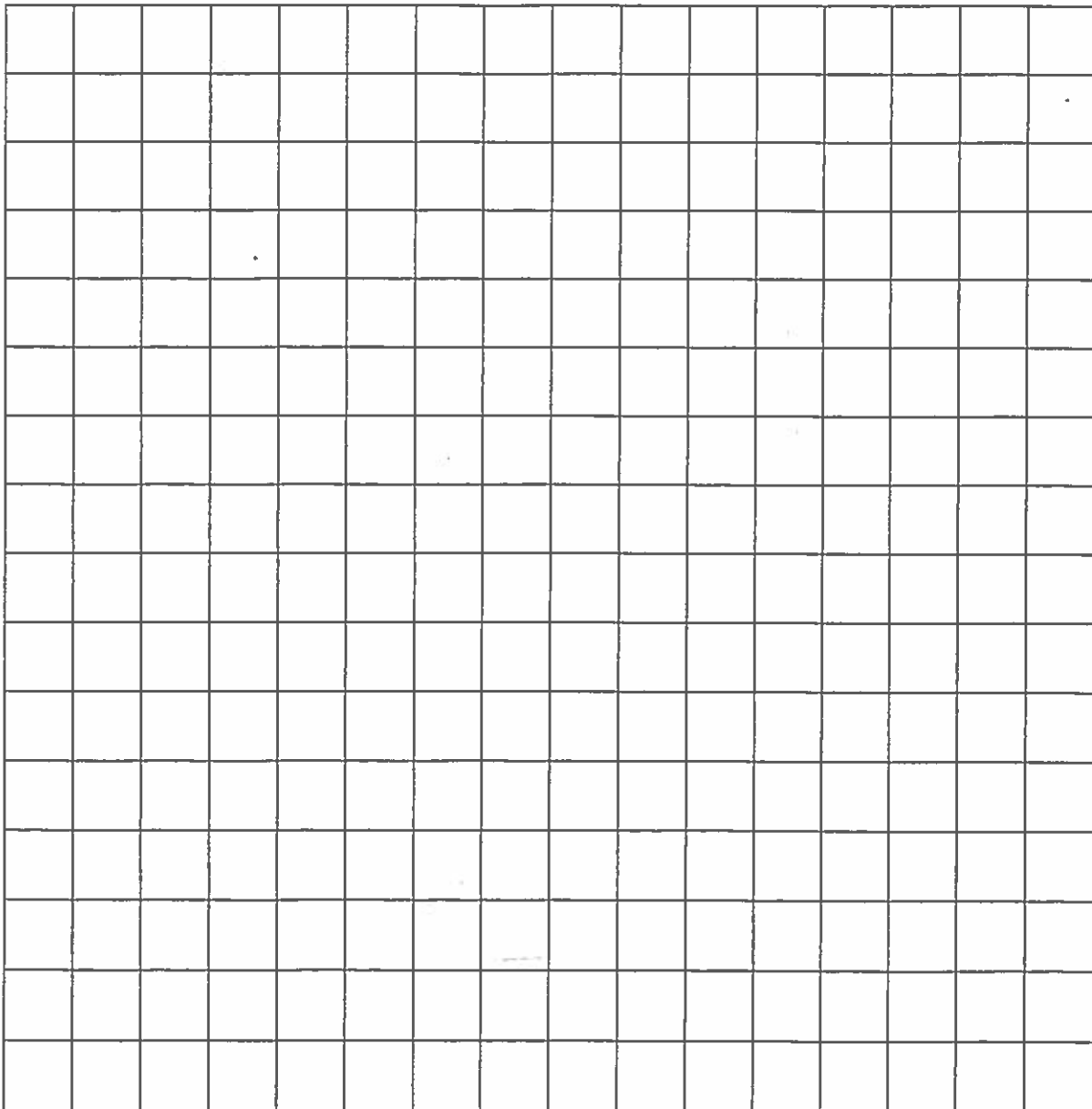
a) $2987 + 145$ is about _____

b) $3254 + 2162$ is about _____

c) $2311 + 2499$ is about _____

d) $2300 + 2253 + 1701$ is about _____

If your estimate is between 4000 and 6000, calculate the exact answer.
Use the grid to help you line up the digits.



Chapter 3
Lesson 5

Adding from Right to Left

GOAL

Solve addition problems by adding from right to left.

1. Add from right to left. Show your work.

a)

	1	2	2	5
+		4	3	1

c)

	4	0	7	2
+	3	7	2	4

b)

	1	7	6	0
+	1	2	4	8

d)

	8	6	4	3
+		6	4	8

2. Jade's mother saved \$3966 this year. Next year, she plans to save \$2992. Will she have enough money to buy a car that costs \$7000?

3. In September, Joshua's website had 227 visits. In October, it had 2143 visits. In November, it had 2324 visits. Has the number of visitors reached 5000?

At-Home Help

You can **regroup** by trading 10 smaller units for 1 larger unit, or 1 larger unit for 10 smaller units. Follow these steps to add from right to left.

Step 1 Add the ones. If the answer is 10 or more, regroup.

Step 2 Add the tens. If the answer is 100 or more, regroup.

Step 3 Add the hundreds. If the answer is 1000 or more, regroup.

Step 4 Add the thousands. For example:

$$\begin{array}{r}
 11 \\
 3762 \\
 + 1942 \\
 \hline
 5704
 \end{array}$$

Multiples of 10, 100, and 1000

Name _____

Count by 10. Write the multiples of 10 between 20 and 130.

A multiple of 10 is a number whose last digit is 0.

30, 40, 50, 60, 70, 80, 90, 100, 110, 120

Complete.

1. Count by 100. Write the multiples of 100 between 600 and 1500.

A multiple of 100 is a number whose last 2 digits are 0.

700, _____, 900, _____, _____, 1300, _____

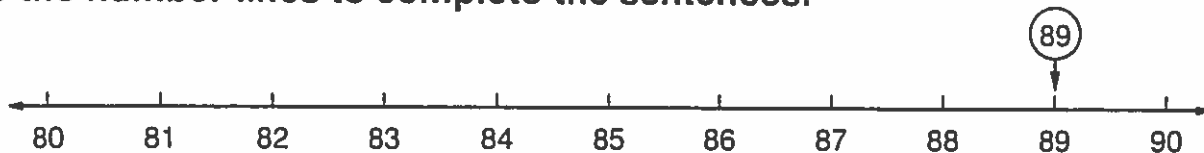
2. Count by 1000. Write the multiples of 1000 between 53 000 and 59 000.

A multiple of 1000 is a number whose last 3 digits are 0.

54 000, _____, 56 000, _____, _____

Use the number lines to complete the sentences.

3.



The multiples of 10 on the number line are _____ and _____.

The multiple of 10 closer to 89 is _____.

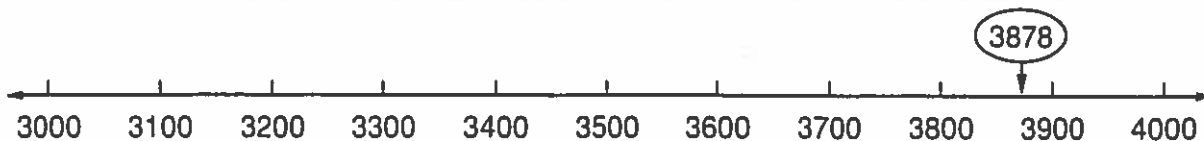
4.



The multiples of 100 on the number line are _____ and _____.

The multiple of 100 closer to 423 is _____.

5.



The multiples of 1000 on the number line are _____ and _____.

The multiple of 1000 closer to 3878 is _____.

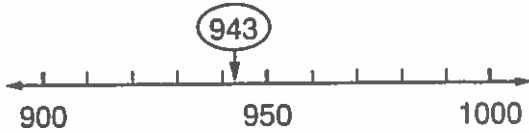
Estimating Sums

Name _____

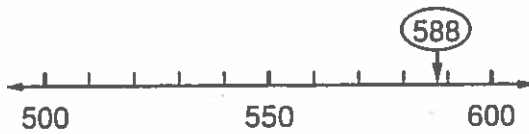
Estimate the sum by rounding to the nearest 100.

$$943 + 588 = \square$$

Round each number to the nearest 100.



943 rounds to 900



588 rounds to 600

Add the rounded numbers.

$$\begin{array}{r} 900 \\ + 600 \\ \hline 1500 \end{array}$$

Estimate by rounding to the nearest 100.

- | | | | | | | | | |
|---|---|--|---|----------------------------|--|---|----------------------------|----------------------------|
| 1. $\begin{array}{r} 564 \\ + 328 \\ \hline \end{array}$ | $\begin{array}{r} 600 \\ + 300 \\ \hline 900 \end{array}$ | 2. $\begin{array}{r} 832 \\ + 489 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 3. $\begin{array}{r} 614 \\ + 207 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | |
| 4. $\begin{array}{r} 426 \\ + 295 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 5. $\begin{array}{r} 783 \\ + 424 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 6. $\begin{array}{r} 372 \\ + 658 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ |
| 7. $\begin{array}{r} 949 \\ + 508 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 8. $\begin{array}{r} 872 \\ + 29 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 9. $\begin{array}{r} 649 \\ + 887 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ |
| 10. $\begin{array}{r} 703 \\ + 89 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 11. $\begin{array}{r} 289 \\ + 397 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 12. $\begin{array}{r} 506 \\ + 450 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ |
| 13. $\begin{array}{r} 918 \\ + 626 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 14. $\begin{array}{r} 774 \\ + 29 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ | 15. $\begin{array}{r} 468 \\ + 982 \\ \hline \end{array}$ | + | $\underline{\hspace{2cm}}$ |

Name: _____

Date: _____

Mid-Chapter Review—Frequently Asked Questions

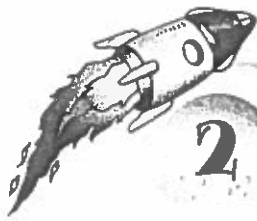
STUDENT BOOK PAGE 81

Q: How can you decide whether to estimate or calculate to solve a problem?

A: _____

Q: How can you add 3-digit and 4-digit numbers?

A: _____



2

Addition and Subtraction

Do the addition. Follow the path of the sums greater than 7600 to help Janice find her toy.



Quick Tip

To do vertical addition, align all the numbers on top right. Add the ones first. Remember to add the digits carried over from the right.

① $\begin{array}{r} 3756 \\ + 4283 \\ \hline \end{array}$	② $\begin{array}{r} 6315 \\ + 3497 \\ \hline \end{array}$
③ $\begin{array}{r} 1246 \\ + 2391 \\ \hline \end{array}$	④ $\begin{array}{r} 3201 \\ + 1468 \\ \hline \end{array}$
⑥ $\begin{array}{r} 5142 \\ + 384 \\ \hline \end{array}$	⑦ $\begin{array}{r} 1985 \\ + 4573 \\ \hline \end{array}$

⑤ $\begin{array}{r} 4628 \\ + 1919 \\ \hline \end{array}$
⑧ $\begin{array}{r} 2086 \\ + 3917 \\ \hline \end{array}$

- | | |
|-----------------------|-----------------------|
| ⑨ 9503 + 827 = _____ | ⑩ 2510 + 4695 = _____ |
| ⑪ 4028 + 3145 = _____ | ⑫ 1793 + 2118 = _____ |
| ⑬ 6537 + 924 = _____ | ⑭ 6872 + 2950 = _____ |
| ⑮ 4315 + 387 = _____ | ⑯ 7963 + 1048 = _____ |
| ⑰ 3196 + 4422 = _____ | ⑲ 8524 + 3191 = _____ |
| ⑱ 3217 + 5278 = _____ | ⑳ 6412 + 2412 = _____ |
| ㉑ 7216 + 913 = _____ | ㉒ 1361 + 2573 = _____ |
| ㉓ 2086 + 3967 = _____ | ㉔ 1496 + 5163 = _____ |

㉕



8039	8761	8824	8129
9812	7905	8495	7620
10330	9822	11715	9133
8213	9011	7618	8765



3.6 Estimating Differences

Student Book page 83

GOAL

Use your own strategies to estimate differences.

Mount Everest is the world's highest mountain.

It is 8850 m tall.

Tien made a chart to show the highest mountains in Western and Northern Canada.

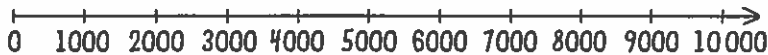


Province/Territory	Name	Height (m)
Yukon	Mount Logan	5959
British Columbia	Fairweather Mountain	4663
Alberta	Mount Columbia	3747

? About how much taller is Mount Everest than each mountain on Tien's chart?

Step 1: Use a number line to estimate for Mount Logan.

Show your work.



About how much higher is Mount Everest than Mount Logan? _____

Step 2: Choose your own strategies to estimate for Fairweather Mountain and Mount Columbia.

Mount Everest is about _____ m higher than Fairweather Mountain.

Mount Everest is about _____ m higher than Mount Columbia.

3.6 Estimating Differences

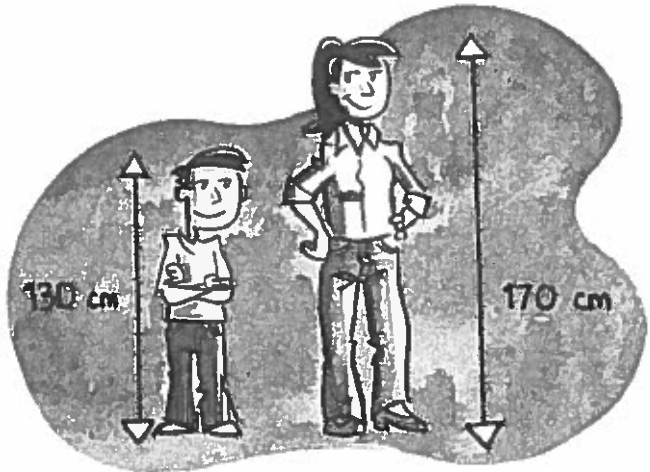
Student Book page 83

GOAL
Estimate differences using a number line.

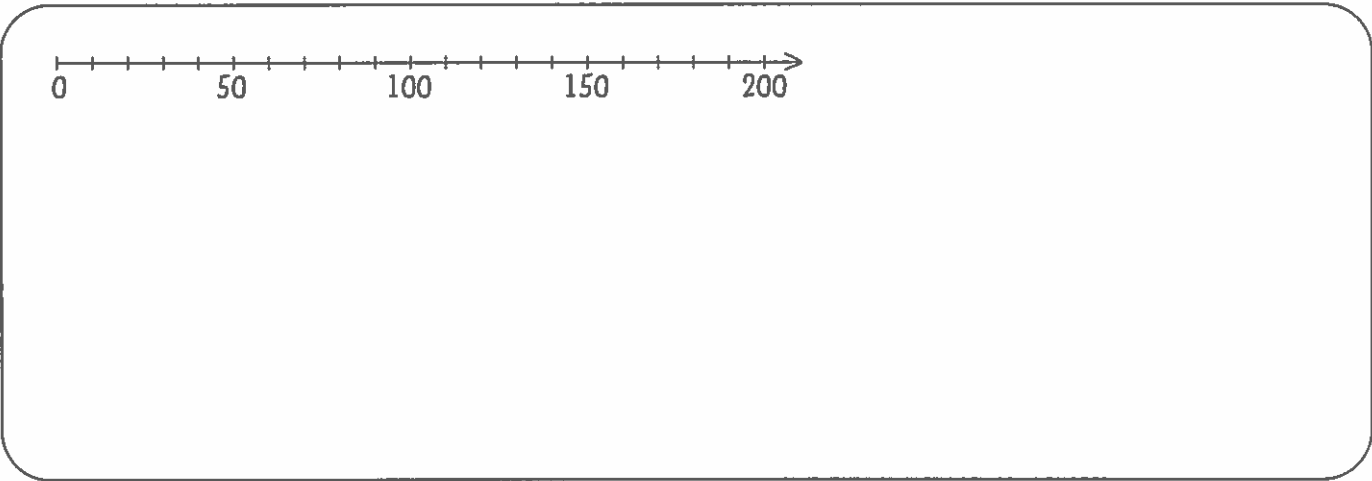
Problem

Jack is 130 cm tall.
His mother is 170 cm tall.

? How can you estimate the difference between Jack's height and his mother's height?



Use a number line.
Show all your steps.



Jack's mother is _____ cm taller than Jack.

What other strategies could you have used to solve the problem?

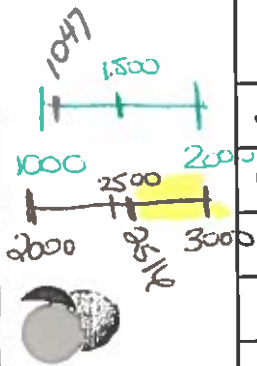
Chapter 3
Lesson 6

Estimating Differences

GOAL

Use your own strategies to estimate differences.

1. Joshua and his friends are raising money for a school trip. Each class needs \$3000. The chart shows how much each class has raised.



Class	Money raised	Money still needed
Joshua's class	\$1047	$3000 - 1000 = 2000$
Chu Lee's class	\$2516	$3000 -$
Nicola's class	\$517	$3000 -$
Desmond's class	\$1998	$3000 -$
Heiko's class	\$2905	$3000 -$
Sandra's class	\$989	$3000 -$

At-Home Help

Here are some ways to estimate differences.

- Use base ten blocks or counters to model the problem.
- Use a number line to model the problem.
- Estimate by subtracting the closer hundreds or thousands (e.g., 1130 is closer to 1000 than 2000).

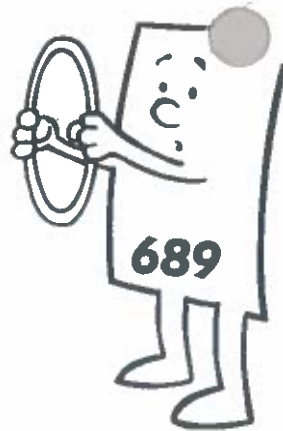
- a) Estimate the amount of money each class still needs. Record your answers in the chart.

- b) How did you estimate the differences? _____

2. 290 cm is cut from a 510 cm ribbon. About how many centimetres long is the ribbon now?

3. There are 7100 people in Petrock Town. 3900 are adults. About how many are children?

Rounding



Directions: Round these numbers to the nearest ten.

10 20
 (18) 20 33 _____ 82 _____ 56 _____
 24 20 49 _____ 91 _____ 67 _____

Directions: Round these numbers to the nearest hundred.

243 _____ 689 _____ 263 _____ 162 _____
 389 _____ 720 _____ 351 _____ 490 _____
 463 _____ 846 _____ 928 _____ 733 _____

Directions: Round these numbers to the nearest thousand.

2,638 _____ 3,940 _____ 8,653 _____
 6,238 _____ 1,429 _____ 5,061 _____
 7,289 _____ 2,742 _____ 9,460 _____
 3,109 _____ 4,697 _____ 8,302 _____

Directions: Round these numbers to the nearest ten thousand.

11,368 _____ 38,421 _____
 75,302 _____ 67,932 _____
 14,569 _____ 49,926 _____
 93,694 _____ 81,648 _____
 26,784 _____ 87,065 _____
 57,843 _____ 29,399 _____

3.7 Subtracting Numbers Close to Tens or Hundreds Page 1

Student Book pages 84–86

GOAL

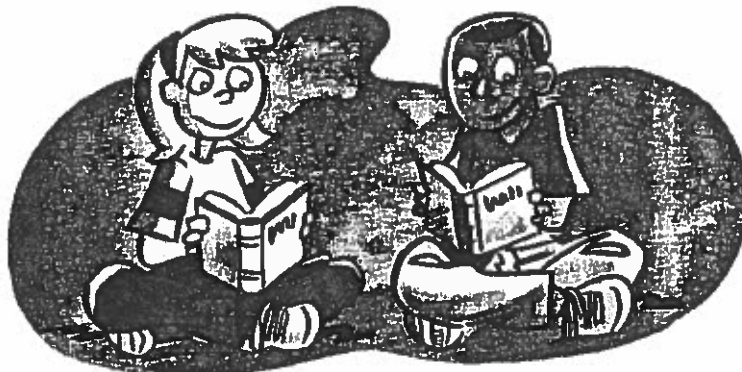
Use mental math to subtract.

Problem

Kate and Max are reading books.

Kate has read 210 pages of her book.

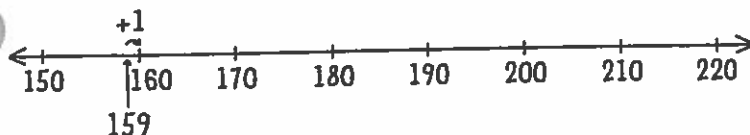
Max has read 159 pages of his book.



 How many more pages has Kate read than Max?

Use a number line.

Step 1: Mark 159 and 210 on the number line.



Step 2: Jump from 159 to the closest ten.

This step has been done for you.

Step 3: Jump by tens from 160 to 210.

Show your jumps on the number line.

L Name: _____ Date: _____

3.7 Subtracting Numbers Close to Tens or Hundreds Page 2

Reflecting

Why did it help to jump from 159 to the closest 10?

3.7 Subtracting Numbers Close to Hundreds or Thousands Page 1

Student Book pages 84–86

GOAL

Use mental math to subtract.

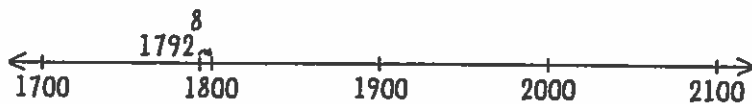
Checking

1. In 1792, Captain George Vancouver explored Burrard Inlet, where Vancouver is now.

In 2010, the Winter Olympics will be held in Vancouver.

How many years are between the 2 dates?

Use the number line to find out.



Step 1: 1792 has been marked on the number line for you.

Jump to the closer thousand. This jump has been done for you.

Step 2: Jump to the next thousand.

Label the jump.

Step 3: Jump to 2010.

Label the jump.

Step 4: Add your jumps.

3.7 Subtracting Numbers Close to Hundreds or Thousands Page 2

Practising

4. An empty helicopter has a mass of 2998 kg.

A helicopter with people in it has a mass of 4536 kg.

What is the difference between the 2 masses?

Use a number line to subtract.



Step 1: Mark 2998 on the number line.

Jump to the closer thousand.

Step 2: Jump to 4500.

Step 3: Jump to 4536.

Step 4: Add your jumps.

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

3. Calculate using a number line.

b) $1000 - 298$

$2007 - 999 = \underline{\hspace{2cm}}$

Scaffolding for Lesson 7, Question 4

STUDENT BOOK PAGE 86

4. The mass of an empty helicopter is 2998 kg. When it is loaded, the helicopter can have a maximum mass of 4536 kg.

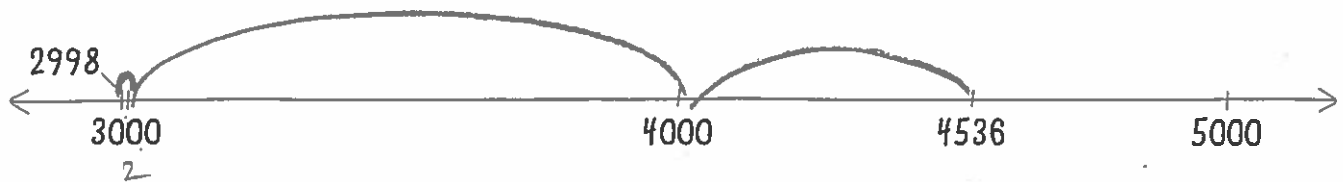
What is the difference between its empty mass and its maximum mass?

Use either Joshua's Method or Kate's Method.

Joshua's Method

Show 2998 and 4536 on a number line.

Add on to 2998 to get to 3000, then 4000, then 4536.



Record your adding on:

$$2998 + \underline{2} + \underline{1000} + \underline{536} = 4536$$

$$2998 + \underline{1538} = 4536$$

Kate's Method

Show the two masses on a number line. Add 2 to each number.



4536 - 2998 has the same difference as $\underline{4538} - \underline{3000}$.

The difference is $\underline{1538}$ kg.

Chapter 3
Lesson 7

Subtracting Numbers Close to Hundreds or Thousands

GOAL

Use mental math to subtract.

1. Use mental math to calculate. Show your work. The first one is done for you.

a) $1000 - 197 = \underline{803}$

$197 + 3 + 800 = 1000$, so $3 + 800 = 803$

b) $2000 - 498 = \underline{1502}$

$2000 - 500 = 1500$

c) $1000 - 299 = \underline{701}$

$1000 - 300 = 700 (+1) = 701$

d) $5000 - 3996 = \underline{1004}$

$5000 - 4000 = 1000 (+4)$

e) $602 - 499 = \underline{103}$

$600 - 500 = 100 + 3$

f) $4006 - 2999 = \underline{1007}$

$4000 - 3000 = 1000 + 7$

2. A library has 5000 books. 1997 are on loan. How many books are left in the library?

$5000 - 1997 = \square 3003$

$5000 - 2000 = 3000$
 $+3$

At-Home Help

To subtract, add to the smaller number until you reach the greater number. For example:
 $1904 - 897 = \blacksquare$

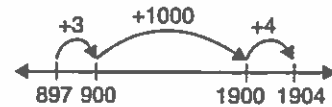
This is the same as
 $897 + \blacksquare = 1904$

To reach 1904, add numbers to 897:

$897 + 3 = 900$

$900 + 1000 = 1900$

$1900 + 4 = 1904$



The difference is

$3 + 1000 + 4 = 1007.$

Estimating

estimate means to give an approximate rather than an exact answer. To find an estimated sum or difference, round the numbers of the problem, then add or subtract. If the number has 5 ones or more, round up to the nearest ten. If the number has 4 ones or less, round down to the nearest ten.

Directions: Round the numbers to the nearest ten, hundred or thousand. Then add or subtract.

Examples:

Ten	
$74 \rightarrow 70$	$64 \rightarrow 60$
$+ 39 \rightarrow + 40$	$- 25 \rightarrow - 30$
<hr style="width: 50%; margin-left: 0;"/>	<hr style="width: 50%; margin-left: 0;"/>
110	30

Hundred	
$352 \rightarrow 400$	
$- 164 \rightarrow - 200$	
<hr style="width: 50%; margin-left: 0;"/>	
200	

Thousand	
$7,681 \rightarrow 8,000$	
$+ 4,321 \rightarrow + 4,000$	
<hr style="width: 50%; margin-left: 0;"/>	
12,000	

Round these numbers to the nearest ten.

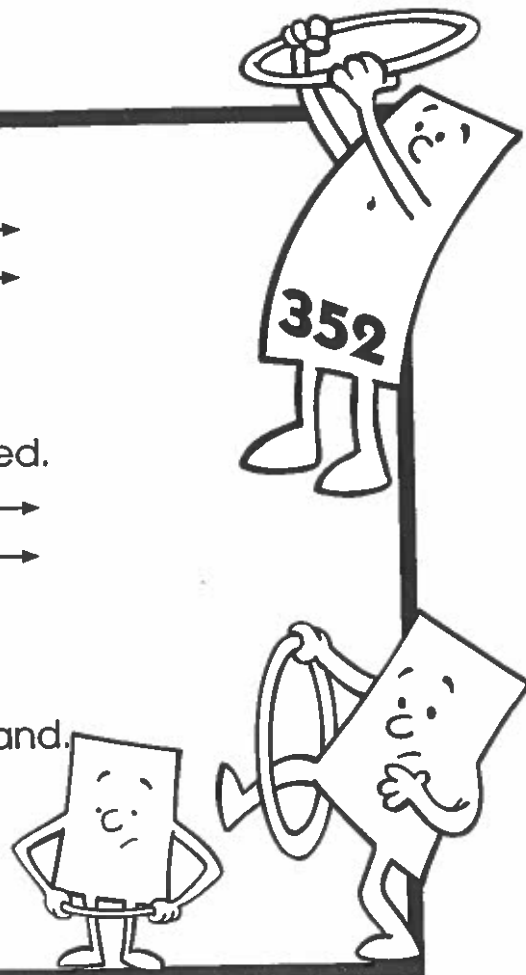
$18 \rightarrow$	$49 \rightarrow$	$67 \rightarrow$
$+ 24 \rightarrow$	$- 33 \rightarrow$	$- 56 \rightarrow$
<hr style="width: 50%; margin-left: 0;"/>	<hr style="width: 50%; margin-left: 0;"/>	<hr style="width: 50%; margin-left: 0;"/>

Round these numbers to the nearest hundred.

$255 \rightarrow$	$526 \rightarrow$	$102 \rightarrow$
$- 99 \rightarrow$	$+ 145 \rightarrow$	$- 75 \rightarrow$
<hr style="width: 50%; margin-left: 0;"/>	<hr style="width: 50%; margin-left: 0;"/>	<hr style="width: 50%; margin-left: 0;"/>

Round these numbers to the nearest thousand.

$8,361 \rightarrow$	$9,926 \rightarrow$
$+ 889 \rightarrow$	$+ 3,645 \rightarrow$
<hr style="width: 50%; margin-left: 0;"/>	<hr style="width: 50%; margin-left: 0;"/>



Subtracting Larger Numbers

When you subtract larger numbers, subtract the ones first, then the tens, hundreds, thousands, and so on.

Example:

Tens	Ones
9	4
- 2	1
<hr/>	
	3

Tens	Ones
9	4
- 2	1
<hr/>	
7	3



Directions: Solve these subtraction problems.

$\begin{array}{r} 29 \\ - 26 \\ \hline \end{array}$	$\begin{array}{r} 99 \\ - 58 \\ \hline \end{array}$	$\begin{array}{r} 359 \\ - 55 \\ \hline \end{array}$
$\begin{array}{r} 735 \\ - 734 \\ \hline \end{array}$	$\begin{array}{r} 849 \\ - 726 \\ \hline \end{array}$	$\begin{array}{r} 7,678 \\ - 4,321 \\ \hline \end{array}$
$\begin{array}{r} 865 \\ - 731 \\ \hline \end{array}$	$\begin{array}{r} 55 \\ - 25 \\ \hline \end{array}$	$\begin{array}{r} 9,876 \\ - 1,234 \\ \hline \end{array}$

3.8 Regrouping before Subtracting Page 1

Student Book pages 88–90

GOAL

Solve subtraction problems by regrouping first.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Checking

1. A video store has 1257 DVDs.

Model 1257 using base ten blocks.

Draw your model in the place value chart.

Thousands	Hundreds	Tens	Ones

a) 788 DVDs have been rented.

How many DVDs are left at the store?

Step 1: Compare the numbers column by column.

Do you need to regroup the thousands? _____

How do you know?

Do you need to regroup the hundreds? _____

Do you need to regroup the tens? _____

Do you need to regroup the ones? _____

3.8 Regrouping before Subtracting Page 2

Step 2: Draw your model after regrouping.

Thousands	Hundreds	Tens	Ones

Step 3: Subtract 780. Draw your model after subtracting.

Thousands	Hundreds	Tens	Ones

How many DVDs are left at the video store? _____

Practising

5. Would you calculate each difference using mental math or using pencil and paper? Give a reason for each choice. Then calculate.

a) $5324 - 324 =$ _____

Circle one: mental math pencil and paper

Why?

b) $6905 - 2876 =$ _____

Circle one: mental math pencil and paper

Why?

L

Name: _____ Date: _____

3.8 Regrouping before Subtracting Page 1

Student Book pages 88–90

GOAL

Solve subtraction problems by regrouping first.

Problem

A video store has 457 DVDs.
148 DVDs have been rented.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones



How many DVDs are left at the video store?

Make a model to solve the problem.

Step 1: Model 457 with base ten blocks.

This step has been done for you.

Hundreds	Tens	Ones

	4	5	7
-	1	4	8

Step 2: Compare the numbers column by column.

Do you need to regroup to subtract 1 hundred from 4 hundreds? _____

Do you need to regroup to subtract 4 tens from 5 tens? _____

Do you need to regroup to subtract 8 ones from 7 ones? _____

Trade 1 of the tens for 10 ones.

Hundreds	Tens	Ones

		4	17
	4	5	7
-	1	4	8
			9

L Name: _____ Date: _____

3.8 Regrouping before Subtracting Page 2

Step 3: Subtract the hundreds, tens, and ones.

Count the blocks that are left.

There are _____ DVDs left at the video store.

Reflecting

How could you have estimated the number of DVDs that are left at the video store?

Chapter 3
Lesson 8

Regrouping before Subtracting

GOAL

Solve subtraction problems by regrouping first.

1. Calculate by regrouping.

a)

	1	9	7	3
-		5	2	7

d)

	3	2	3	8
-		1	9	4

b)

	2	5	2	8
-		1	4	6

e)

	6	8	8	5
-		7	3	6

c)

	5	1	3	6
-		4	1	0

f)

	3	1	6	7
-		2	4	8

At-Home Help

To help you subtract, you can regroup. For example:

$$\begin{array}{r} 1 \ 14 \ 8 \ 12 \\ \cancel{2} \ \cancel{4} \ \cancel{9} \ \cancel{2} \\ - \quad 6 \ 8 \ 3 \\ \hline 1 \ 8 \ 0 \ 9 \end{array}$$

- You need more than 4 hundreds to take away 6 hundreds. You can regroup 2 thousands 4 hundreds as 1 thousand 14 hundreds.
- You need more than 2 ones to take away 3 ones. You can regroup 9 tens 2 ones as 8 tens 12 ones.

2. Calculate using regrouping or mental math.

a) $3001 - 1999 = \underline{\hspace{2cm}}$

c) $5008 - 2997 = \underline{\hspace{2cm}}$

b) $1875 - 1364 = \underline{\hspace{2cm}}$

d) $2738 - 342 = \underline{\hspace{2cm}}$



Subtraction: Regrouping

Directions: Subtract using regrouping.

Examples:

$\begin{array}{r} 23 \\ - 18 \\ \hline \end{array}$	$\begin{array}{r} 13 \\ \cancel{2}3 \\ - 18 \\ \hline 5 \end{array}$
---	--

$\begin{array}{r} 243 \\ - 96 \\ \hline \end{array}$	$\begin{array}{r} 113 \\ \cancel{2}\cancel{4}3 \\ - 96 \\ \hline 147 \end{array}$
--	---

$$\begin{array}{r} 76 \\ - 49 \\ \hline \end{array}$$

$$\begin{array}{r} 94 \\ - 38 \\ \hline \end{array}$$

$$\begin{array}{r} 156 \\ - 77 \\ \hline \end{array}$$

$$\begin{array}{r} 341 \\ - 83 \\ \hline \end{array}$$

$$\begin{array}{r} 726 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 806 \\ - 738 \\ \hline \end{array}$$

$$\begin{array}{r} 743 \\ - 550 \\ \hline \end{array}$$

$$\begin{array}{r} 903 \\ - 336 \\ \hline \end{array}$$

$$\begin{array}{r} 647 \\ - 289 \\ \hline \end{array}$$

$$\begin{array}{r} 254 \\ - 69 \\ \hline \end{array}$$

$$\begin{array}{r} 961 \\ - 846 \\ \hline \end{array}$$

$$\begin{array}{r} 573 \\ - 76 \\ \hline \end{array}$$

$$\begin{array}{r} 604 \\ - 55 \\ \hline \end{array}$$

$$\begin{array}{r} 265 \\ - 19 \\ \hline \end{array}$$

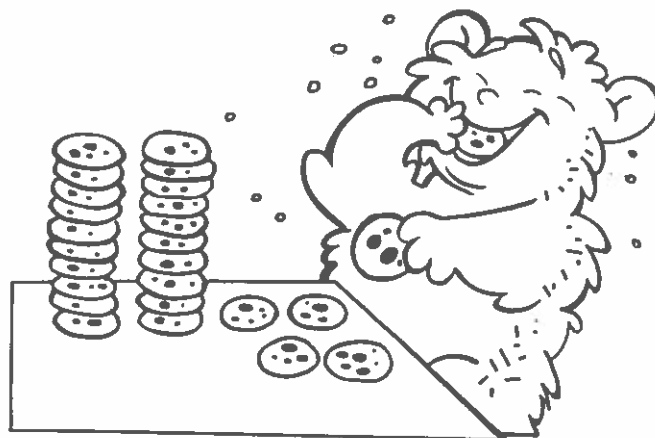
$$\begin{array}{r} 372 \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} 358 \\ - 99 \\ \hline \end{array}$$

$$\begin{array}{r} 147 \\ - 49 \\ \hline \end{array}$$

$$\begin{array}{r} 325 \\ - 68 \\ \hline \end{array}$$

$$\begin{array}{r} 873 \\ - 35 \\ \hline \end{array}$$



L Name: _____

Date: _____

3.9 Subtracting by Renaming Page 1

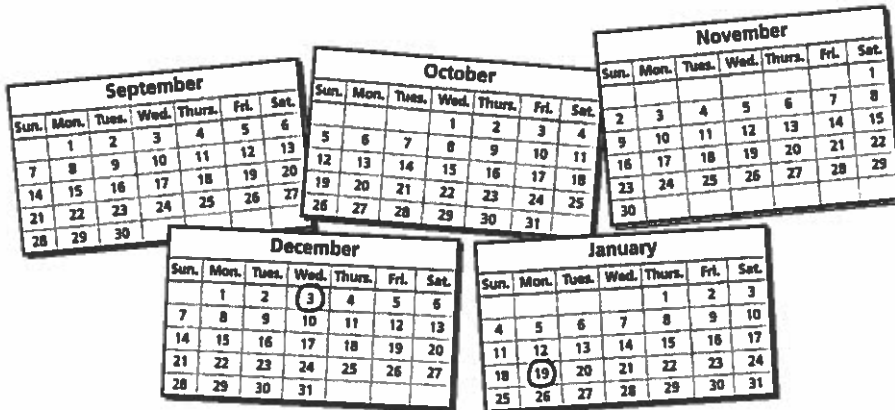
Student Book pages 92–93

GOAL

Use renaming to make subtraction easier.

Problem

Vera's class is having a party on the 100th day of school.
Today is the 67th day of school.



How many days are there until the 100th day of school?

Subtract by renaming to solve the problem.

Step 1: Rename 100 as 99 + 1.

		9	9	+	1
		1	0	0	
-			6	7	
					=

Step 2: Subtract.

Step 3: Add 1 to the answer.

Hint: You need to add 1 because you renamed 100 as 99 + 1.

There are _____ days until the 100th day of school.

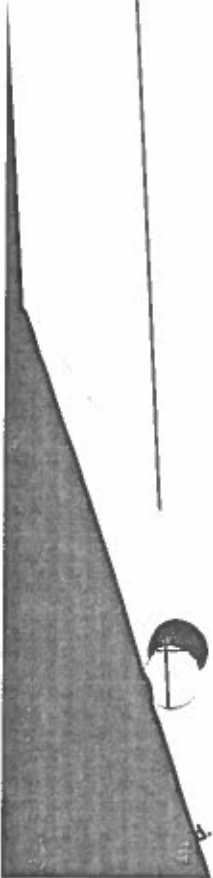
3.9 Subtracting by Renaming Page 2

Reflecting

How does renaming make subtracting easier?

Write a subtraction question that you could solve by renaming the numbers first.

Solve your problem.



3.9 Subtracting by Renaming Page 1

Student Book pages 92–93

GOAL

Use renaming to make subtraction easier.

Checking

1. Vera's brother is 1083 days old.

How many days are there until his 5000th day birthday?

	4	9	9	9	+1
	5	0	0	0	
-	1	0	8	3	
+				1	

Step 1: Rename 5000 as 4999 + 1.

Step 2: Subtract.

Step 3: Add 1 to the answer.

Why do you need to add 1 to your answer?

How many days are there until Vera's brother's 5000th day birthday? _____

Practising

4. Kyle has 3456 points in a game.

To win, he must score 6000 points.

How many more points does he need to win? _____

Step 1: Rename 6000 as 5999 + 1.

Step 2: Subtract.

		6	0	0	0
-		3	4	5	6

Step 3: Add 1 to the answer.

3.9 Subtracting by Renaming Page 2

4. Estimate. Then calculate.

a) $1000 - 435$

$1000 - 435$ is about _____.

$1000 - 435 =$ _____

b) $2000 - 435$

$2000 - 435$ is about _____.

$2000 - 435 =$ _____

c) $3000 - 278$

$3000 - 278$ is about _____.

$3000 - 278 =$ _____

5. A town has 7000 people.

914 people are 6 years old or younger.

How many people are older than 6 years? _____

Hint: Rename 7000 as $6999 + 1$, then subtract. Do not forget to add the 1 back.

Subtracting by Renaming

GOAL

Use renaming to make subtraction easier.

1. Estimate each difference.

- a) $2000 - 385$ is about _____
 b) $1000 - 197$ is about _____
 c) $3000 - 964$ is about _____
 d) $5000 - 331$ is about _____

At-Home Help

To help you subtract, you can rename. For example:
 I want to know $4000 - 2864$.
 I can rename 4000 as $3999 + 1$
 to make it easier to subtract.

$$\begin{array}{r} 3999 + 1 \\ - 2864 \\ \hline 1135 + 1 = 1136 \end{array}$$

2. Subtract by renaming.

a)

$$\begin{array}{r} 1000 \\ - 486 \\ \hline \end{array}$$

c)

$$\begin{array}{r} 4000 \\ - 865 \\ \hline \end{array}$$

b)

$$\begin{array}{r} 2000 \\ - 142 \\ \hline \end{array}$$

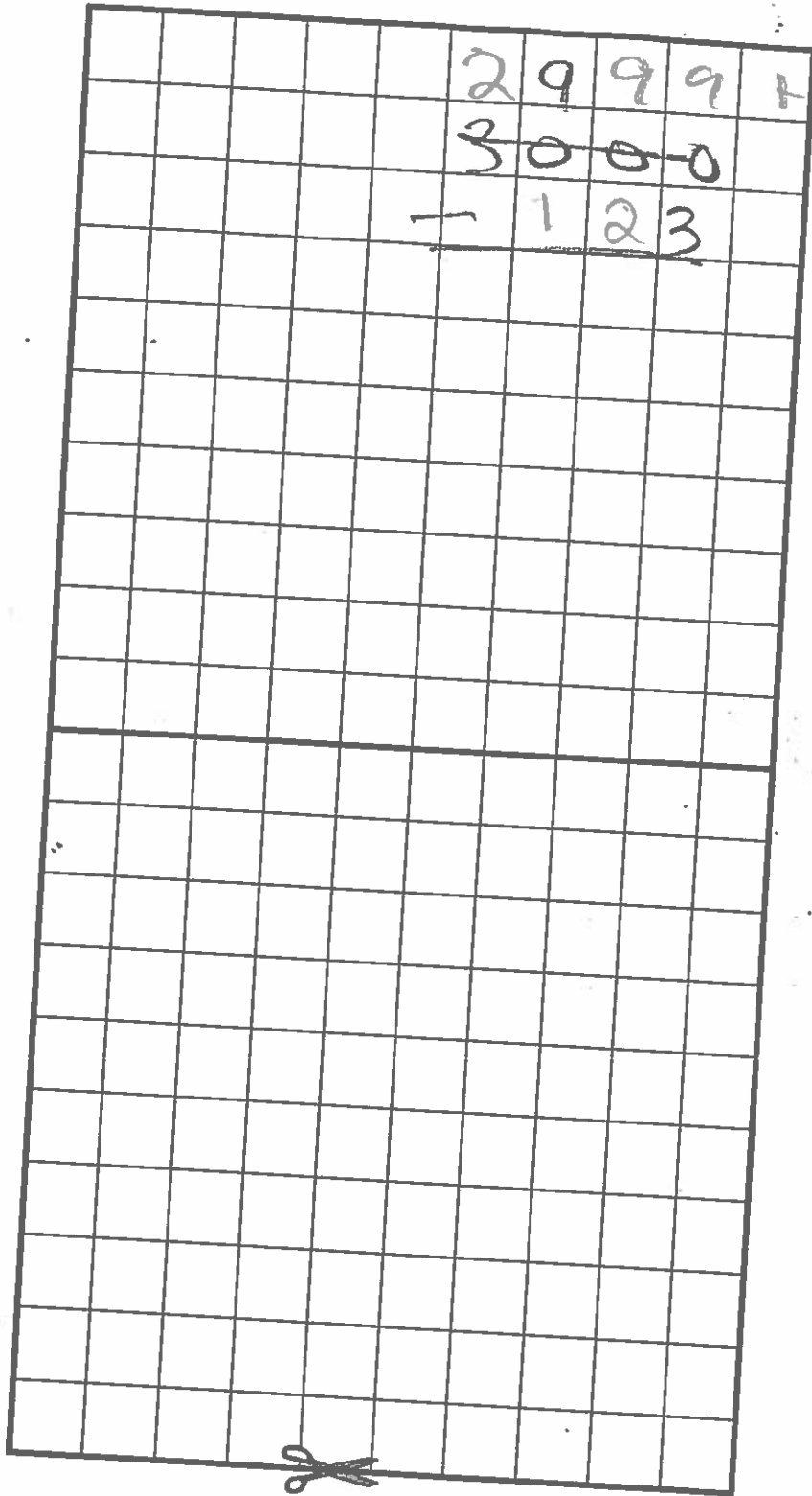
d)

$$\begin{array}{r} 3000 \\ - 298 \\ \hline \end{array}$$

3. Subtract.

a) $4000 - 721 =$ _____ c) $3000 - 307 =$ _____ e) $6000 - 214 =$ _____

b) $1000 - 192 =$ _____ d) $5000 - 536 =$ _____ f) $2000 - 1642 =$ _____



3.10 Communicating about Number Concepts and Procedures Page 1

Student Book pages 94–35

GOAL

Explain your thinking when estimating a sum or difference.

Checking

1. The circus had 6000 tickets to sell.

- It sold 1631 adult tickets.
- It sold 3712 children's tickets.

How many tickets are left?

Step 1: Estimate how many adult tickets were sold.

Circle the closer hundred: 1600 **1631** 1700

Step 2: Estimate how many children's tickets were sold.

Circle the closer hundred: 3700 **3712** 3800

Step 3: Add your estimates.

$$\begin{array}{r} \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\ \text{adult} \qquad \text{children's} \qquad \text{tickets sold} \end{array}$$

Step 4: Subtract.

$$6000 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

tickets sold tickets left

Is your estimate reasonable? _____

How do you know? Use the Communication Checklist to explain.

Communication Checklist

- ✓ Did you show the right amount of detail?
- ✓ Did you explain your thinking?

3.10 Communicating about Number Concepts and Procedures Page 2

Practising

- 2. Bryan scored 2815 points in level 1 of a video game.
He scored 3947 points in level 2.
He needs to reach 7500 points.
How many points does he need to score in level 3?

Step 1: Estimate. Show your steps.

Step 2: Calculate. Show your steps.

How do you know your answer is reasonable?

Chapter 3
Lesson 10

Communicating about Number Concepts and Procedures

GOAL

Explain your thinking when estimating a sum or difference.

1. The chart shows the number of people in 3 towns. Jade calculated that the total number of people is 7500. Is her answer reasonable? Explain.

Town	Number of people
Willowbrook	1497
Argent	3140
Freeman	2073

At-Home Help

You can estimate to check whether an answer is reasonable or not.

Communication Checklist

- ✓ Did you show the right amount of detail?
- ✓ Did you explain your thinking?

2. Add or subtract.

a)
$$\begin{array}{r} 2000 \\ - 399 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 6865 \\ + 1437 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 3062 \\ 1086 \\ + 421 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 4971 \\ - 735 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 1005 \\ - 205 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 5000 \\ - 267 \\ \hline \end{array}$$

3. Explain how you know your answer to part f) of Question 2 is reasonable.

Chapter 3**Test Yourself**

Circle the correct answer.

1. Estimate $398 + 403$.

- A. about 800 B. about 700 C. about 900 D. about 600

2. Estimate $498 + 1015 + 2499$.

- A. about 3000 B. about 3500 C. about 4000 D. about 4500

3. Calculate $1630 + 321$.

- A. 4631 B. 1951 C. 1621 D. 1930

4. Calculate $2518 + 105 + 3245$.

- A. 5855 B. 5813 C. 5868 D. 5788

5. At the school fair, Tien earned 2504 points, Cole earned 1013 points, and Emily earned 2995 points. If they add their points together, about how many points do they have?

- A. about 5000 points C. about 8000 points
-
- B. about 6500 points D. about 9500 points

6. Estimate $2989 - 1015$.

- A. about 2500 B. about 1500 C. about 3000 D. about 2000

7. Calculate $3000 - 496$.

- A. 2504 B. 2604 C. 3496 D. 2696

8. Calculate $5893 - 641$.

- A. 5841 B. 5252 C. 4852 D. 5351

9. Calculate $6000 - 1432$.

- A. 5578 B. 4668 C. 5678 D. 4568

3.10 Communicating about Number Concepts and Procedures Page 1

Student Book pages 94–95

GOAL

Explain your thinking when estimating a sum or difference.

Problem

Joshua is selling tickets for the school play.
He started with 200 tickets.
He has sold 148 tickets.
Joshua estimates that there are about 50 tickets left.

 **Is Joshua's estimate reasonable?**

Estimate $200 - 148$.

Step 1: Round 148 to the closest ten. _____

Step 2: Subtract that number from 200.

Show your work.

Is Joshua's estimate reasonable? _____

Explain your thinking.

3.10 Communicating about Number Concepts and Procedures Page 2

Reflecting

Check your answer using the Communication Checklist.
How could you improve your answer?

Communication Checklist

- ✓ Did you show the right amount of detail?
- ✓ Did you explain your thinking?

Chapter 3 Test Page 1

1. One answer for each sum is correct. Estimate to identify the correct answer.

- a) $3587 + 3710 =$ 6297 or 7297
- b) $1896 + 205 + 4809 =$ 6910 or 7910
- c) $209 + 588 + 345 =$ 1142 or 2142

2. a) Will the total of these 3 lengths be greater than 6000 cm? _____



b) Did you estimate or calculate an exact answer? Explain.

3. Madeleine is going to walk to the store with her older sister. Which store is closer to her home? Explain what you did.

- Store A $756\text{ m} + 1387\text{ m} + 1098\text{ m}$
- Store B $1675\text{ m} + 310\text{ m} + 1890\text{ m}$

4. A crowd of 2724 people attended the first day of a horse show. The next day, 3168 attended. What was the attendance for the two days?

5. Tim lives 1819 km away from his cousin Mark. His cousin Alicia lives 6085 km farther.

- a) Estimate how far Alicia lives from Tim. About _____ km
- b) Calculate how far Alicia lives from Tim.

Chapter 3 Test Page 2

6. Calculate. Show your work.

a) $4368 + 632$

c) $1397 + 1275$

b) $6543 + 875 + 349$

d) $4120 + 2537$

7. Use mental math to subtract. Explain what you did.

a) $350 - 99 =$ _____

b) $1000 - 499 =$ _____

c) $500 - 175 =$ _____

d) $3000 - 1999 =$ _____

8. 7216 fans attended a soccer game.
3499 fans entered through Gate 1 and
the rest came through Gate 2.
How many fans came through Gate 2?

9. Estimate. Then calculate.

a) $3286 - 257$ is about _____. The exact answer is _____.

b) $5471 - 841$ is about _____. The exact answer is _____.

c) $7421 - 460$ is about _____. The exact answer is _____.

d) $8822 - 1162$ is about _____. The exact answer is _____.

10. Ian plans to read 2000 pages this year. So far, he has read 1054 pages. How many more pages does he need to read?