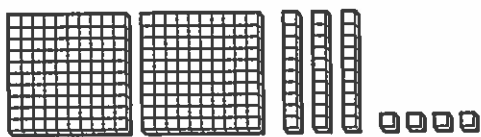


Chapter 2: Numeration

Representing Numbers

You can show and write numbers in different ways. For example, you can use base ten blocks, pictures, words, or numerals.

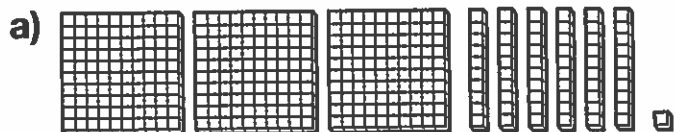


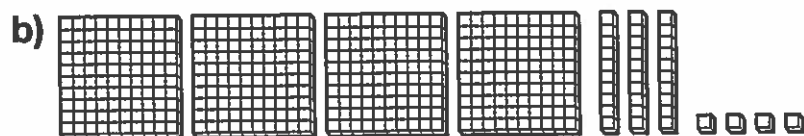
2 hundreds 3 tens 4 ones

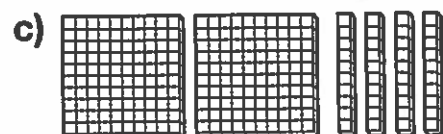
$$200 + 30 + 4$$

234

1. Write each number.







2. Sketch base ten blocks for each number.

a) 128

b) 307

Name: _____ Date: _____

3. Write each number.

a) 1 hundred 5 tens _____

c) 7 hundreds 12 ones _____

b) 2 tens 4 ones _____

d) 99 tens _____

4. I have 3 ones, 4 tens, and 2 hundreds. Who am I? Circle the number.

342 432 243 234

5. Write each number.

a) fifteen _____

d) one hundred twenty _____

b) fifty-four _____

e) one hundred two _____

c) eighty _____

f) six hundred twelve _____

6. Write each number in words.

a) 20 _____

d) 900 _____

b) 80 _____

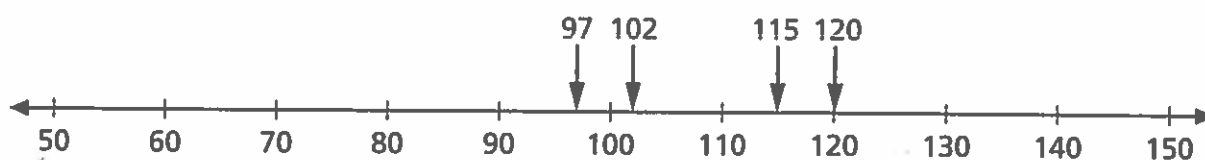
e) 300 _____

c) 40 _____

f) 700 _____

Comparing and Ordering Numbers

You can compare and order numbers using a number line. For example, you can tell from this number line that 120 is greater than 102, and the order of the numbers from least to greatest is 97, 102, 115, 120.



7. Circle the greater number in each pair.

a) 743 347

c) 304 403

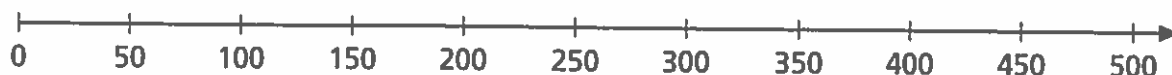
b) 892 982

d) 24 240

8. a) Order these numbers from least to greatest.

250, 104, 499, 320 _____

b) Place each number on the number line.

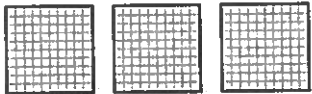




Scaffolding for Getting Started Page 1

STUDENT BOOK PAGE 35

A man in India knows how to make the sounds of 326 mammals and birds.

Olivia's Model of 326

Hundreds	Tens	Ones
		

? How can you model 3-digit numbers like 326?**A.** Is Olivia's model greater than or less than 400? _____

Is Olivia's model greater than or less than 300? _____

How does Olivia's model show that 326 is between 300 and 400?
_____**B.** Olivia's model for 326 uses 11 blocks. To model 326 using more than 11 blocks, follow these steps:

1. Use base ten blocks to copy Olivia's model.
2. Regroup 1 tens block as 10 ones.
3. Sketch your model or write the number of hundreds, tens, and ones.

Scaffolding for Getting Started Page 2

STUDENT BOOK PAGE 35

C. To use 11 blocks to model a 3-digit number, follow these steps:

1. Choose a number. The digits in your number should add up to 11.
2. Model your number with 11 base ten blocks.
3. Regroup one of your tens blocks or hundreds blocks for smaller blocks.
Sketch your new model or write the number of hundreds, tens, and ones.

D. Repeat Part C two more times.

E. Which number that you modelled is the greatest? _____

How do you know? _____

F. Which number is the least? _____

How do you know? _____

G. Which number is closest to 300? _____

How do you know? _____

2.1 Modelling Thousands Page 1

Student Book pages 36–37

GOAL

Relate thousands to hundreds and to tens.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Checking

- Elise's school has 420 students.

Each student will make 10 cranes.

How many hundreds of cranes will the students make?

Step 1: Model 10 cranes using base ten blocks.

Use 1 ones block for 1 crane.

Draw your model.



10 ones blocks is the same as 1 tens blocks.

Step 2: Model the cranes 10 students will make.

Use 1 tens block for 10 cranes

Draw your model.



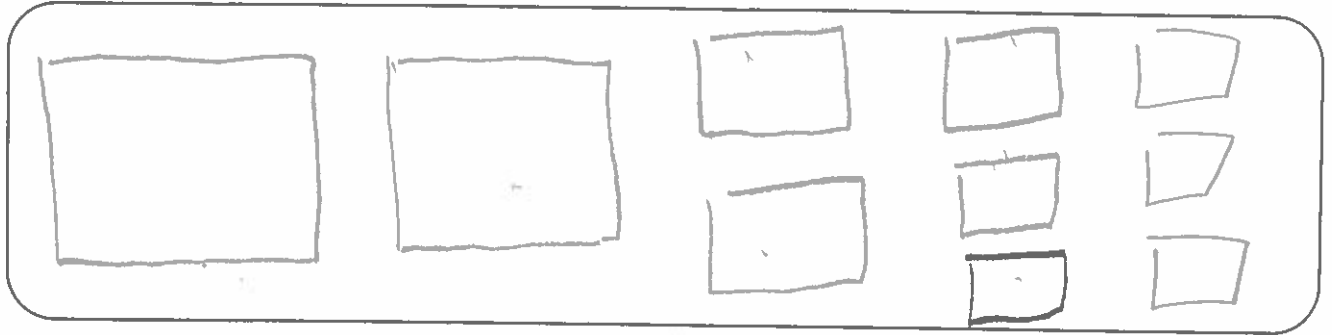
10 tens blocks is the same as 1 hundreds blocks.

2.1 Modelling Thousands Page 2

10

Step 3: Model the cranes 100 students will make.

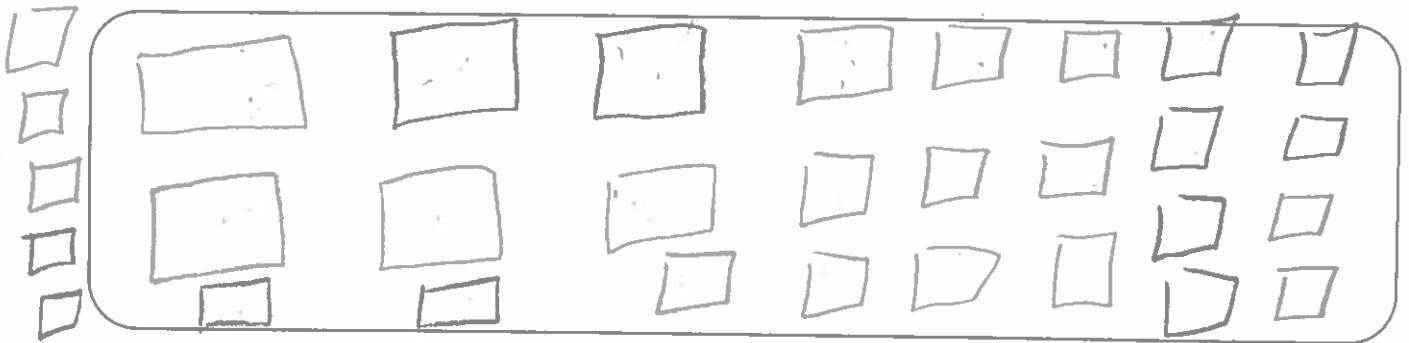
Draw your model.



Step 4: Model the cranes 420 students will make.

Draw your model.

4,200



Practising

11

3. There are 100 cranes on each string.

Write the number of cranes as thousands and hundreds.

Use base ten blocks to model the cranes first.

a) 41 strings

41 strings is the same as 41 hundreds of cranes.

41 strings is the same as 4 thousands of cranes.

b) 17 strings

17 strings is the same as 7 hundreds of cranes.

17 strings is the same as 1 thousands of cranes.

41 000
 4 100
 thousands / tens / ones
 hundreds

2.1 Modelling Hundreds Page 1

Student Book pages 36–37

GOAL

Relate hundreds to tens.

Problem

Cory's class read a book about paper cranes.

There are 35 students in Cory's class.

Each student made 10 paper cranes.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

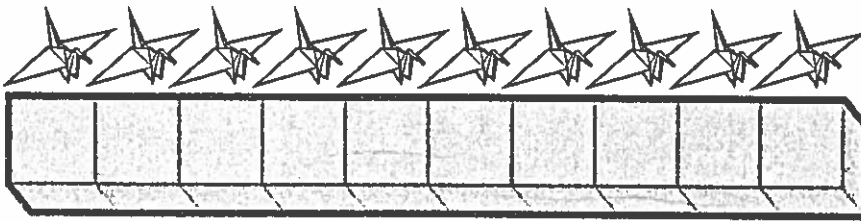


How many cranes did the 35 students make?

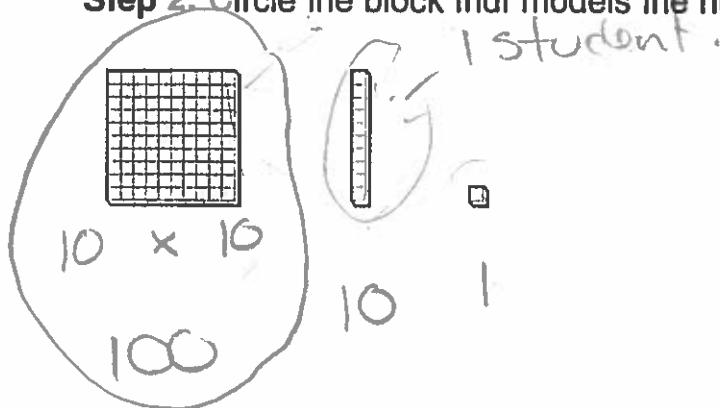
Step 1: Model the number of cranes made by 1 student.

Cory made 10 cranes.

His model looks like this:



Step 2: Circle the block that models the number of cranes made by 10 students.



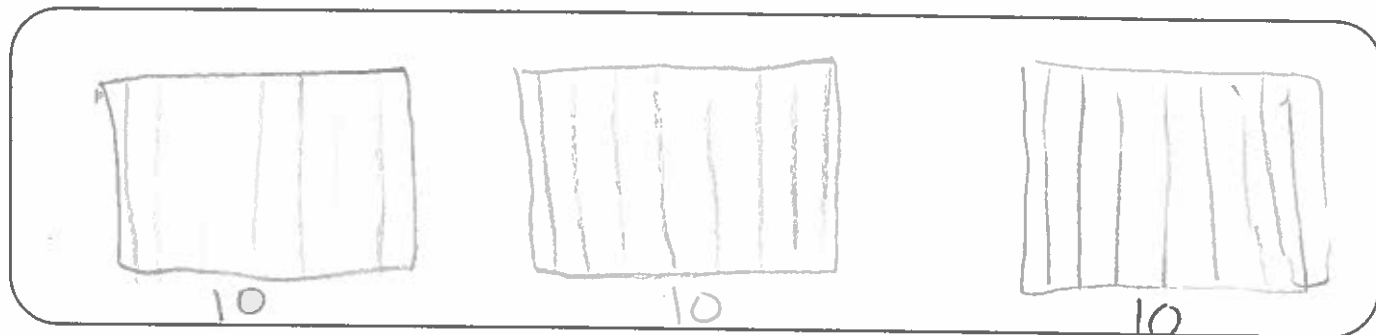
2.1 Modelling Hundreds Page 2

$$10 = 100 \text{ block}$$

Step 3: Model the number of cranes made by 30 students.

Hint: Count by 10s.

Draw your model.



Step 4: Model the number of cranes made by 5 students.

Hint: Look at Cory's model in Step 1.

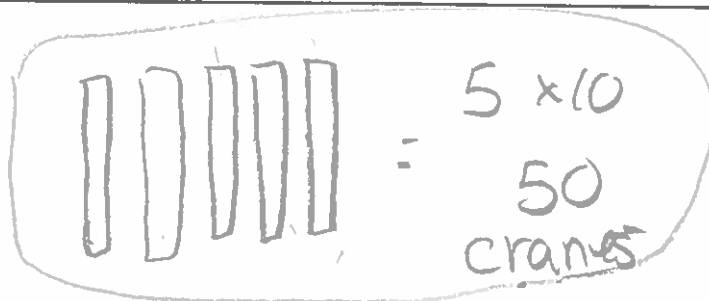
Add these blocks to your drawing in Step 3.

$$30 \times 10 = \underline{\underline{300}}$$

Reflecting

How does Step 2 show that 10 tens is 100?

It shows 10 tens is 100 by
using 100 blocks



Thousands	Hundreds	Tens	Ones

Chapter 2 Lesson 1

Modelling Thousands

GOAL

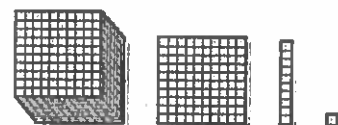
Relate thousands to hundreds and to tens.

1. How many hundreds blocks do you need to model each number?

- a) $200 = \underline{\hspace{2cm}}$ hundreds
- b) $1000 = \underline{\hspace{2cm}}$ hundreds
- c) $3000 = \underline{\hspace{2cm}}$ hundreds
- d) $4500 = \underline{\hspace{2cm}}$ hundreds

At-Home Help

You can use base ten blocks to model thousands, hundreds, tens, and ones.



2. Write the number for each.

a) _____

b) _____

c) _____

3. Elise has 32 necklaces. Each necklace has 100 beads.
Represent the number of beads as thousands and hundreds.

_____ hundreds

OR

_____ thousands _____ hundreds

2.2 Place Value Page 1

Student Book pages 38–41

GOAL

Represent numbers to 1000 using numerals, number words, and sketches.

Problem

Jade's school has 472 students.



How can you represent the number of students?

Make a sketch.


Step 1: Write the number of students in a place value chart.

Hundreds	Tens	Ones

Step 2: Model 472 using base ten blocks.

Draw your model.

Use  for hundreds.

Use  for tens.

Use  for ones.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

2.2 Place Value Page 2

Step 3: Count the blocks in your model.

How many blocks did you use? _____

Reflecting

Could you have modelled 472 using more blocks? _____

Try it.

Draw your new model.

How can you figure out the least number of blocks you need to model a 3-digit number with no zeros?

2.2 Place Value Page 1

Student Book pages 38–41

GOAL

Represent numbers to 10 000 using numerals, number words, and sketches.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Checking

1. There are 1943 members living in Big River First Nation in Saskatchewan.

a) Model 1943 using base ten blocks.

Use only hundreds, tens, and ones.

Draw your model in the place value chart.

Thousands	Hundreds	Tens	Ones

1 thousand is the same as _____ hundreds.

b) Model 1943 using the least number of blocks possible.

Draw your model in the place value chart.

Thousands	Hundreds	Tens	Ones

2.2 Place Value Page 2**Practising**

2. Model each number using the least number of blocks possible.

Draw your models.

a) 1873

Thousands	Hundreds	Tens	Ones

b) 6037

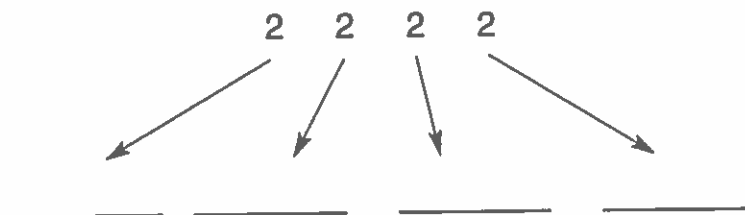
Thousands	Hundreds	Tens	Ones

9. a) Model 2222.

Draw your model in the place value chart.

Thousands	Hundreds	Tens	Ones

b) Write the number each 2 represents.



Name: _____

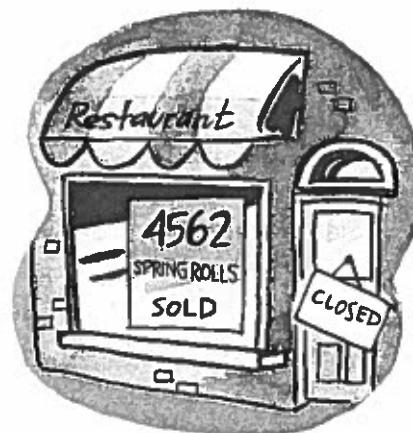
Date: _____

Scaffolding for Lesson 2, Question 6

Page 1

STUDENT BOOK PAGE 41

6. A Chinese restaurant has sold 4562 spring rolls.
It sells 100 more spring rolls each day.



- a) Write the number 4562 in the place value chart.

Thousands	Hundreds	Tens	Ones

Sketch a model of 4562. Use the least number of blocks you can.
Use the place value chart to guide you.

Name: _____ Date: _____

Scaffolding for Lesson 2, Question 6

Page 2

STUDENT BOOK PAGE 41

- b) Add 1 hundreds block to your model. This represents Day 1.
Sketch your new model.

Add 1 hundreds block for each day for Day 2, Day 3, Day 4, and Day 5.
Add to your sketch above each time.

Does your sketch have more than 10 hundreds blocks?
If it does, regroup 10 hundreds blocks as 1 thousands block.
Sketch your new model.

- c) What should the sign read at the end of 5 days? _____

- d) How did your sketch change for each day over the 5 days?

Thousands	
Hundreds	
Tens	
Ones	

Chapter 2 Lesson 2

Place Value

GOAL

Represent numbers to 10 000 using numerals, number words, and sketches.

1. Sketch a model for each number using the least number of blocks possible.

a) 1744

b) 4123

c) 2134

At-Home Help

A **place value chart** can help you understand large numbers. This chart shows the number 3163.

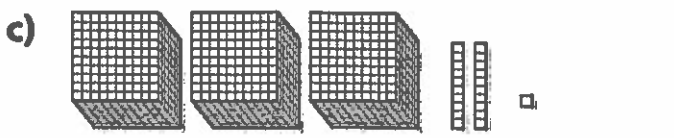
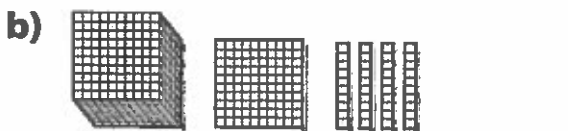
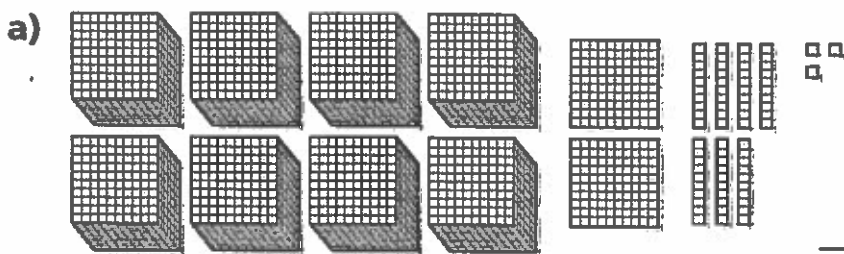
Thousands	Hundreds	Tens	Ones
3	1	6	3

This number has 3 thousands, 1 hundred, 6 tens, and 3 ones.

You can **sketch** a model of this number.



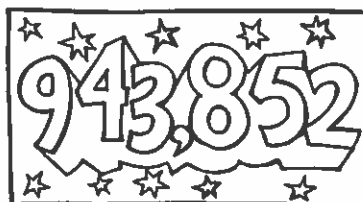
2. Write the numeral for each number.



Place Value

The place value of a digit, or numeral, is shown by where it is in the number. For example, in the number 1,234, 1 has the place value of thousands, 2 is hundreds, 3 is tens and 4 is ones.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
9	4	3	8	5	2



Directions: Match the numbers in Column A with the words in Column B.

A

62,453

7,641

486,113

11,277

813,463

594,483

254,089

79,841

27,115

B

two hundred thousands

three thousands

four hundred thousands

eight hundreds

seven tens

five ones

six hundreds

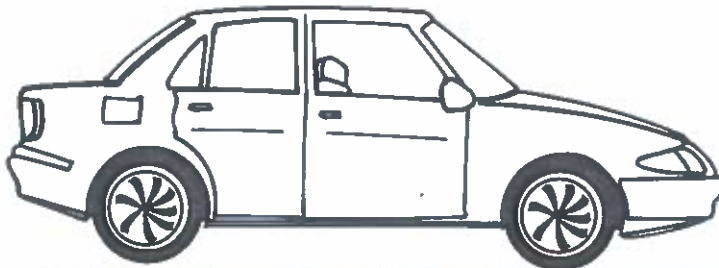
nine ten thousands

five tens

Place Value

Place value is the value of a digit, or numeral, shown by where it is in the number. For example, in 1,234, 1 has the place value of thousands, 2 is hundreds, 3 is tens and 4 is ones.

Directions: Write the numbers in the correct boxes to find how far the car has traveled.



one thousand

six hundreds

eight ones

nine ten thousands

four tens

two millions

five hundred thousands

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

How many miles has the car traveled? _____

Directions: In the number ...

2 386 _____ is in the ones place.

4 957 _____ is in the hundreds place.

102 432 _____ is in the ten thousands place.

489 753 _____ is in the thousands place.

1,743 998 _____ is in the millions place.

9,301 671 _____ is in the hundred thousands place.

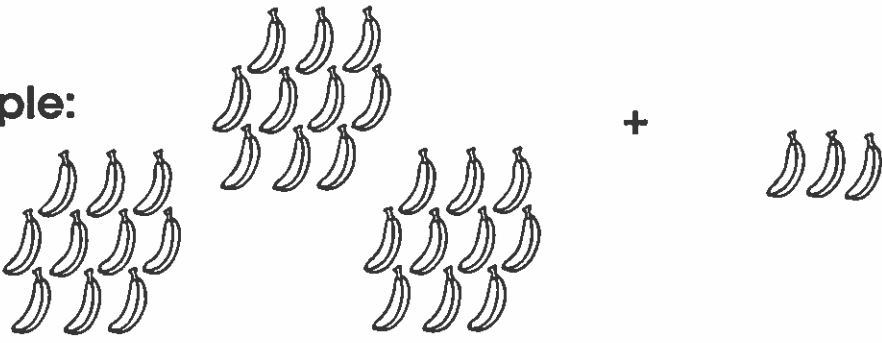
7,521 834 _____ is in the tens place.

Place Value: Ones, Tens

The place value of a digit or numeral is shown by where it is in the number. For example, in the number **23**, **2** has the place value of **tens** and **3** is **ones**.

Directions: Add the tens and ones and write your answers in the blanks.

Example:



3 tens + 3 ones = 33

	tens	ones		tens	ones
7 tens + 5 ones =			4 tens + 0 ones =		
2 tens + 3 ones =			8 tens + 1 one =		
5 tens + 2 ones =			1 ten + 1 one =		
5 tens + 4 ones =			6 tens + 3 ones =		
9 tens + 5 ones =					

Directions: Draw a line to the correct number.

6 tens + 7 ones	73
4 tens + 2 ones	67
8 tens + 0 ones	51
7 tens + 3 ones	80
5 tens + 1 one	42

Name _____

Expanded Form

13

★ The expanded form of a number shows the value of each digit.

Standard form: 8,630,712

Expanded form: $8,000,000 + 600,000 + 30,000 + 700 + 10 + 2$

Rewrite the numbers in expanded form or standard form.

1) 21,657 _____

2) 540,031 _____

3) 7,123,970 _____

4) 6,700 _____

5) $9,000,000 + 400 + 30 + 8$ _____

6) $2,000 + 100 + 8$ _____

7) $300,000 + 10,000$ _____

8) $70,000 + 9,000 + 50 + 4$ _____

Answer the questions about the following number: 7,801,204.76

9) What value does the 2 represent? _____

10) How many millions are there? _____

11) What value does the 6 represent? _____

12) How many tens are there? _____

2.3 Expanded Form Page 2

Practising

2. Rob Peterson made $8000 + 10 + 7$ good tennis serves in a row.

a) Write this number in expanded form using words.

_____ thousands + _____ hundreds + _____ tens + _____ ones

b) Write this number in standard form.

Standard form: _____

5. Model each number on a place value chart.

Then write each in standard form.

a) $6000 + 60 + 6$

Thousands	Hundreds	Tens	Ones

Standard form: _____

b) 1 thousand + 2 hundreds + 1 ten

Thousands	Hundreds	Tens	Ones

Standard form: _____

2.3 Expanded Form Page 1

Student Book pages 42–44

GOAL

Represent numbers to 10 000 using expanded form.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Checking

1. Daniel Evans collects computer mouse pads.

He has 4567 pads.

a) How would you read 4567? _____

- b) Model 4567 using base ten blocks.

Draw your model in the place value chart.

Thousands	Hundreds	Tens	Ones

- c) Write 4567 in expanded form using words.

Hint: Use the place value chart in part b) to help you.

_____ thousands + _____ hundreds + _____ tens + _____ ones

- d) Write 4567 in expanded form using numbers.

_____000 + _____00 + _____0 + _____

Name: _____ Date: _____

Scaffolding for Lesson 3, Questions 2 & 3

STUDENT BOOK PAGE 44



2. Rob Peterson holds a record with $8000 + 10 + 7$ good tennis serves in a row.

a) Write the number of serves in expanded form using words.

_____ thousands + _____ hundreds + _____ tens + _____ ones

b) Write the number of serves in standard form. _____

3. a)




Thousands	Hundreds	Tens	Ones
			

Write the number in standard form: _____

Write the number in expanded form:

_____ thousands + _____ hundreds + _____ tens + _____ ones

b)

Thousands	Hundreds	Tens	Ones
			

Write the number in standard form: _____

Write the number in expanded form:

Chapter 2
Lesson 3

Expanded Form

GOAL

Represent numbers to 10 000 using expanded form.

1. Model each number by drawing counters on the place value chart. Then write the number in standard form.

a) $5000 + 400 + 20 + 3$

Thousands	Hundreds	Tens	Ones
			

Standard form: _____

b) $2 \text{ thousands} + 7 \text{ hundreds} + 3 \text{ tens} + 2 \text{ ones}$

Thousands	Hundreds	Tens	Ones
			

Standard form: _____

At-Home Help

Numbers are usually written in **standard form**, for example, 4251.

You can also write 4251 in **expanded form** using words or numerals. For example:

4 thousands + 2 hundreds +
5 tens + 1 one

$4000 + 200 + 50 + 1$

2. Write each number in expanded form using numerals.

a) 1762 _____

b) 7315 _____

c) 1026 _____

3. Write each number in expanded form using words.

a) 5831 _____

b) 9912 _____

c) 8520 _____

2.4 Describing 10 000

Student Book page 45

GOAL

Explore and describe things involving 10 000.

Ethan made a book about 10 000.

These are some of the ideas he used:

- A 10 000-word book is about 40 or 50 pages long.
- If you walk 10 000 steps, you can cross my bedroom 1000 times.
- 10 000 is the 10th number in the pattern 1000, 2000, 3000,



How can you use the number 10 000 to describe things you are interested in?

Model 10 000 with base ten blocks.

Draw your model in the place value chart.

Thousands	Hundreds	Tens	Ones

Have you eaten 10 000 meals? _____

How can you find out?

Write a pattern that includes 10 000.

Use 10 000 to describe something you are interested in.

2.4 Describing 1000

Student Book page 45

GOAL

Explore and describe things involving 1000.

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones

Problem

Kate is writing a book about 1000.

These are some of her ideas:

- A 1000-word book is about 4 or 5 pages long.
- If you walk 1000 steps, you can cross my bedroom 100 times.
- 1000 is the 10th number when you count by 100: 100, 200, 300,



How can you use the number 1000 to describe things you are interested in?

Step 1: List some things that come in groups of 1000.

Hint: Think about groups of people. Think about groups of things.

Step 2: List some ways to show the number 1000.

Hint: Think about using base ten blocks. Think about using pictures.

Name _____

Place Value

1



millions
hundred thousands
ten thousands
hundreds
tens
ones

4, 2 5 7, 6 1 3

Answer the questions about the following number: 9,750,386

- ① What value does the 7 have? _____
- ② What is the place value of the 0? _____
- ③ Which digit is in the tens place? _____
- ④ How many millions are there in this number? _____

Write the following numbers in standard form or word form.

- ⑤ Five thousand, four hundred seventy-nine _____
- ⑥ Seven hundred two thousand, eight hundred ninety-nine _____
- ⑦ Six million, four hundred fifty thousand, twenty-one _____
- ⑧ 2,356 _____
- ⑨ 1,209,411 _____
- ⑩ 400,897 _____
- ⑪ What number has 5 tens, 3 thousands, 4 hundreds, and 2 ones? _____
- ⑫ What number has nine ones, twelve thousands, and two hundreds? _____

Chapter 2
Lesson 4**Describing 10 000****GOAL**

Explore and describe things involving 10 000.

1. Cory has 3 ideas about the number 10 000.

One of his ideas is not true.

- 10 000 is the 5th number in the pattern 1, 10, 100, ...
- There are about 10 000 people in Canada.
- You can buy a used car for about \$10 000.

Which of Cory's ideas is not true?

How do you know?

At-Home Help

Here are some ideas to help you think about the number 10 000.

- A 10 000-word book is probably about 40 or 50 pages long.
- 10 000 is the 10th number in the pattern 1000, 2000, 3000, ...
- There are about 10 000 people in the town of Truro, Nova Scotia.

2. Fill in the blanks using the numbers 10, 100, 1000, and 10 000.

- 10 people have _____ fingers.
- _____ is the 5th number in the pattern 2000, 4000, 6000, ...
- There are about _____ days in 3 years.
(Hint: There are 365 days in 1 year.)
- Lunch in the school cafeteria costs about \$ _____

3. Write your own idea about 10 000.


1

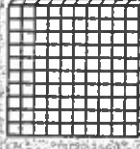
Numbers to 10 000

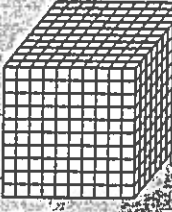
Write the number shown by each group of blocks in numerals.

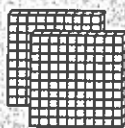
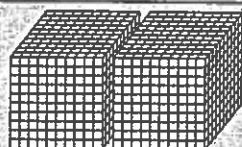
Example


1 one


1 ten


1 hundred

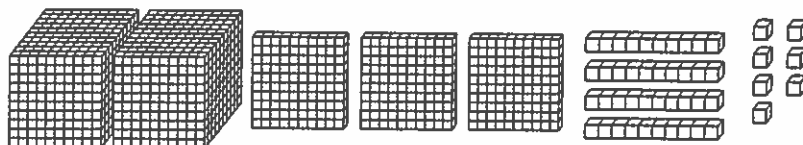

1 thousand



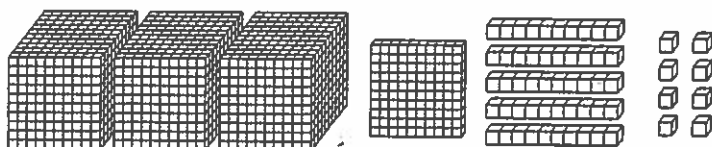
In numerals : 2236

In words : Two thousand two hundred thirty-six

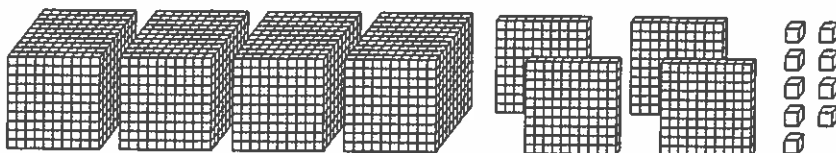
①



②



③



Write the numbers in words.

④ 5239

⑤ 7108

⑥ 4620

⑦ 3057

Write the numerals.

⑧ Six thousand four hundred fifty-three

⑨ Nine thousand eighty-one

⑩ Eight thousand five hundred six

⑪ Five thousand seven hundred forty

Write the numbers.

- ⑫ 5 thousands 7 hundreds 4 ones

- ⑬ 1 thousand 8 hundreds 2 tens 9 ones

- ⑭ 3 thousands 6 tens 5 ones

- ⑮ 9 thousands 4 hundreds 2 tens



Quick Tip

thousands
hundreds
tens
ones

6 2 3 5

6235
= 6 thousands 2 hundreds 3 tens 5 ones

Fill in the correct digits.

- ⑯ 2680

	thousands		hundreds		tens		ones
--	-----------	--	----------	--	------	--	------
- ⑰ 7963

	thousands		hundreds		tens		ones
--	-----------	--	----------	--	------	--	------
- ⑱ 4226

	thousands		hundreds		tens		ones
--	-----------	--	----------	--	------	--	------

Write the expanded form or standard form of each number.



Example

Write 6534 in expanded form.

Standard form

Expanded form

6534 = 6000 + 500 + 30 + 4



Quick Tip

Expanded form

It shows the value of each digit.

- ⑲ 9586 = 9000 + _____ + _____ + _____
- ⑳ 2955 = _____ + 900 + _____ + _____
- ㉑ 8473 = _____ + _____ + 70 + _____
- ㉒ _____ = 3000 + 200 + 60 + 7
- ㉓ _____ = 6000 + 30 + 8
- ㉔ _____ = 5000 + 700 + 40

Write the place value of each underlined digit.

- ㉕ 8326 _____ ㉖ 4910 _____
- ㉗ 5741 _____ ㉘ 6049 _____

2.5 Writing Number Words Page 1

Student Book pages 48–49

GOAL

Write numbers to 1000 using words.

Problem

Cory's school bought a new sound system for the gym.

They wrote a cheque to pay for the sound system.

The sound system cost \$795.

The cheque looked like this:

657

XXX Date

Pay to the order of Sonny's Music Store \$ 795

Seven hundred ninety-five dollars

words standard form

0000

You will need

- base ten blocks



- a place value chart

Thousands	Hundreds	Tens	Ones



How can you write a cheque?

Write a cheque for \$825 to Sonny's Music Store.

Step 1: Model 825 using base ten blocks.

Draw your model.

Hundreds	Tens	Ones

Step 2: Use the place value chart to help you write the cheque for \$825.

657

XXX Date

Pay to the order of Sonny's Music Store \$

dollars

words standard form

0000

2.5 Writing Number Words Page 2

Reflecting

How can you use expanded form to help you write the words for a 3-digit number?

2.5 Writing Number Words Page 2

Practising

3. Write each number in a place value chart.

Then write a cheque for each amount.

a) \$1500

Thousands	Hundreds	Tens	Ones

XXX		Date	657
		<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	
Pay to the order of _____		\$	
_____ dollars			
0000	_____		

b) \$1005

Thousands	Hundreds	Tens	Ones

XXX		Date	657
		<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	
Pay to the order of _____		\$	
_____ dollars			
0000	_____		

2.5 Writing Number Words Page 1

Student Book pages 48–49

GOAL

Write numbers to 10 000 using words.

Checking**1. a)** Write \$9995 in expanded form.

Write a cheque for the amount.

_____ thousands + _____ hundreds + _____ tens + _____ ones

XXX		Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	657
Pay to the order of _____		\$		<input type="text"/>						
_____		dollars								
0000	_____									

b) Write \$3950 in expanded form.

Write a cheque for the amount.

_____ thousands + _____ hundreds + _____ tens + _____ ones

XXX		Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	657
Pay to the order of _____		\$		<input type="text"/>						
_____		dollars								
0000	_____									

Name: _____ Date: _____

Blank Cheques

Lesson 5: Writing Number Words

STUDENT BOOK PAGES 48–49

653

XXX

Date
DD MM YYYY

Pay to the order of _____ \$ _____

_____ dollars

0000

654

XXX

Date
DD MM YYYY

Pay to the order of _____ \$ _____

_____ dollars

0000

655

XXX

Date
DD MM YYYY

Pay to the order of _____ \$ _____

_____ dollars

0000

Chapter 2
Lesson 5**Writing Number Words****GOAL**

Write numbers to 10 000 using words.

1. Fill in the missing number words.

- a) 1800 is _____ thousand _____ hundred
- b) 458 is _____ hundred _____
- c) 3011 is _____ thousand _____

2. Write each number in words.

- a) 2744 _____
- b) 4857 _____
- c) 1263 _____
- d) 8532 _____
- e) 9175 _____
- f) 5036 _____

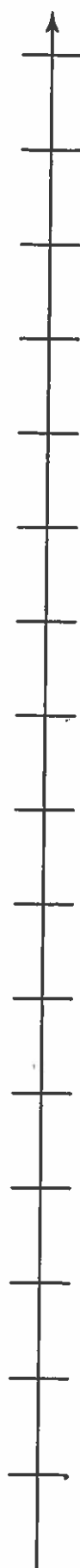
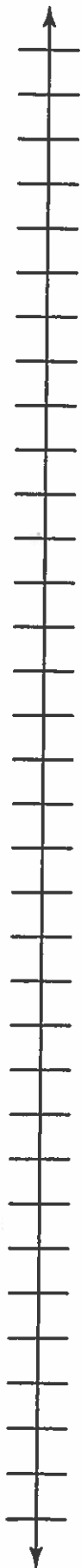
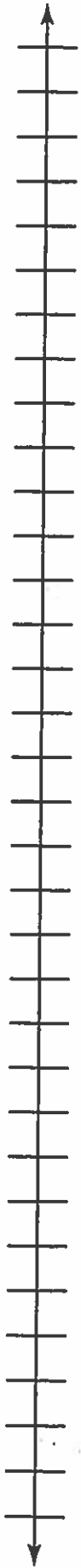
3. Write each number in standard form.

- a) one thousand five hundred twenty-three _____
- b) seven thousand nine hundred fifty-one _____
- c) three thousand six hundred eleven _____
- d) eight thousand one hundred forty-two _____
- e) five thousand two hundred _____
- f) two thousand six hundred thirty _____

At-Home Help

Here are some examples of writing numbers in words.

- 7795: seven thousand seven hundred ninety-five
- 1158: one thousand one hundred fifty-eight
- 2043: two thousand forty-three



Chapter 2 Lesson 6

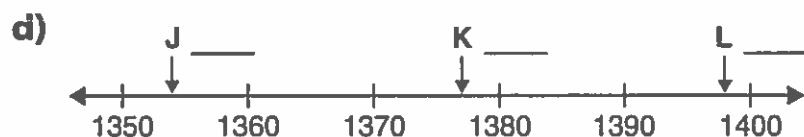
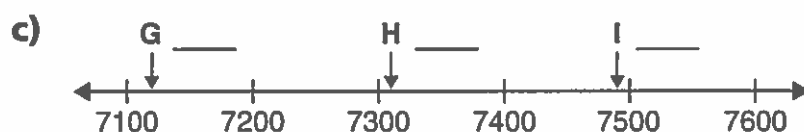
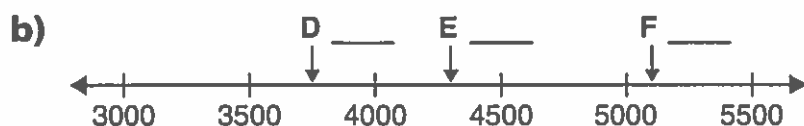
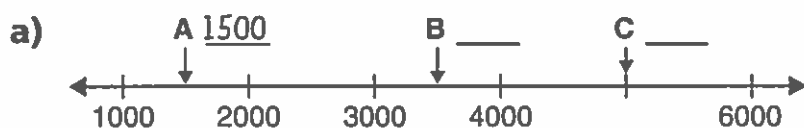
Name: _____ Date: _____

Locating Numbers on a Number Line

GOAL

Place 4-digit numbers on a number line.

1. Estimate what number belongs at each letter. The first one is done for you.



At-Home Help

To estimate a number on a number line, follow these steps:

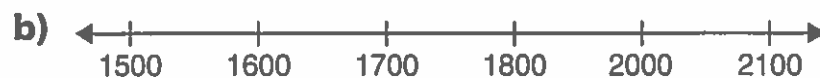
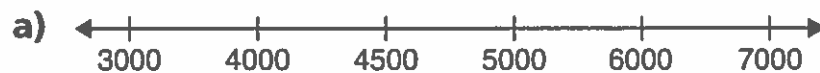
Step 1 Look at the numbers on the number line. What is the counting pattern?

Step 2 Look at the numbers on both sides of your number. What are they?

Step 3 Your number is between those two numbers. What could it be?

For example, the pattern is 3800, 4000, 4200, 4400, 4600. My number is between 4000 and 4200. My number is in the middle, so I think it is 4100.

2. What is wrong with each number line below? How do you know?



2.6 Locating Numbers on a Number Line Page 1

Student Book pages 50–52

GOAL

Place 3-digit numbers on a number line.

Problem

Jade's class sold raffle tickets for charity.

This is how many tickets each student sold:

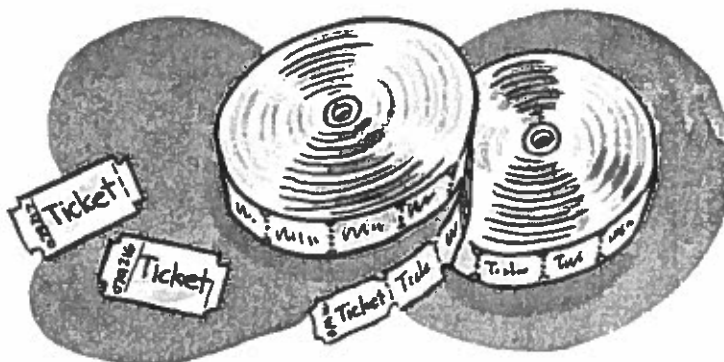
Jade: 320

Cory: 230

Aneela: 380

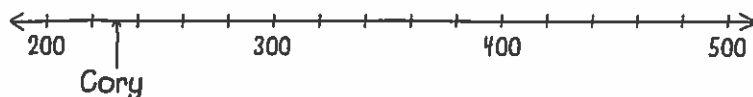
Lang: 390

Cole: 270



How can you place the number of tickets sold on a number line?

Step 1: Fill in the missing labels on the number line.



Hint: The number line counts by 20s.

Step 2: Place each number on the number line.

Use an arrow and a label.

Cory's number is done for you.

2.6 Locating Numbers on a Number Line Page 2

Reflecting

How did you know where to place each number?

Why did Jade start the number line at 200?

2.6 Locating Numbers on a Number Line Page 1

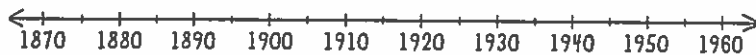
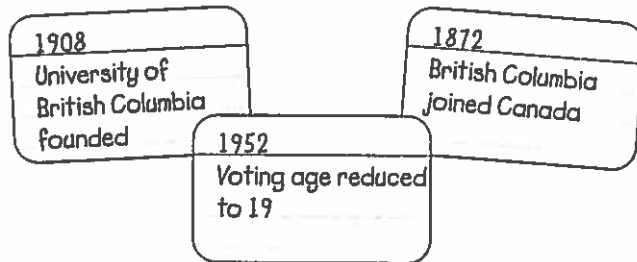
Student Book pages 50–52

GOAL

Place 4-digit numbers on a number line.

Checking

1. Place these 3 dates on the timeline.



Which date is closest to 1870? _____

How do you know?

Which date is closest to 1960? _____

How do you know?

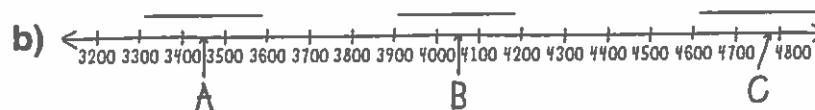
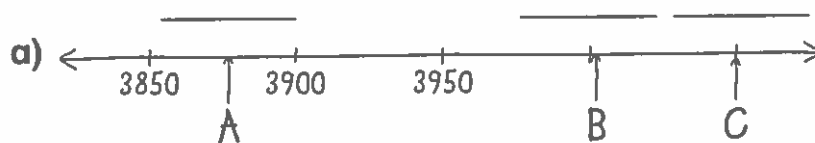
How did you know where to place 1908?

2.6 Locating Numbers on a Number Line Page 2

Practising

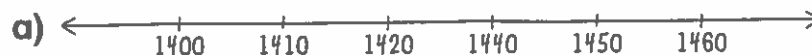
2. Estimate what number belongs at each letter.

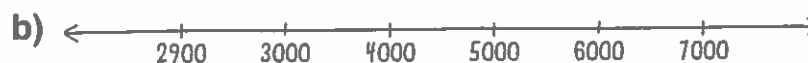
Label the number line with your estimate.



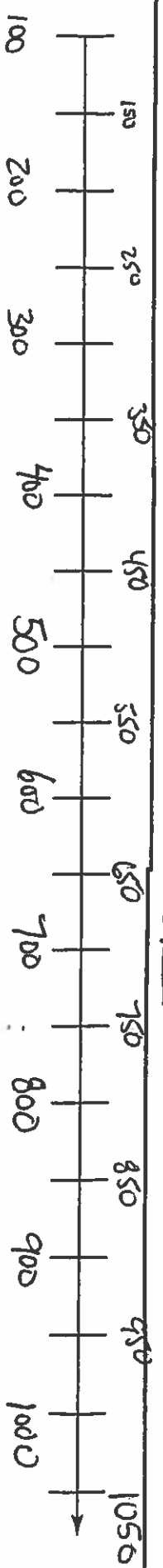
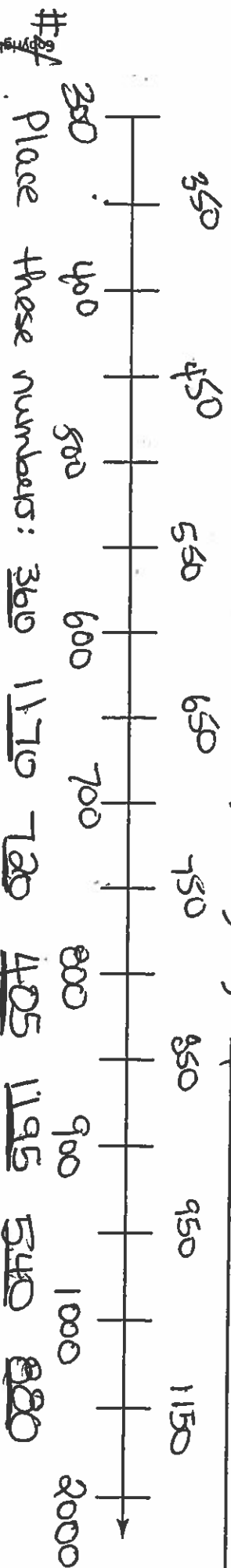
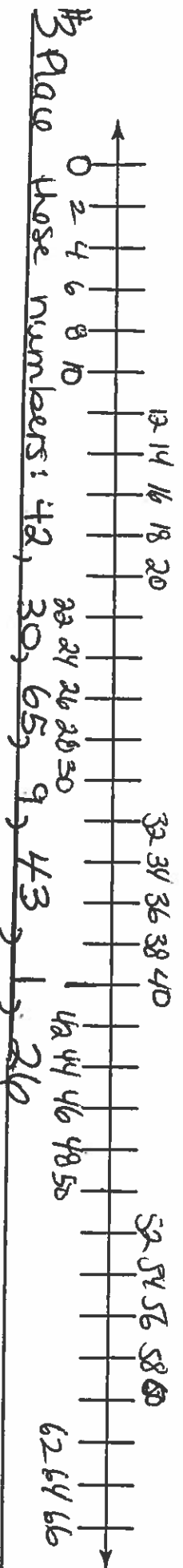
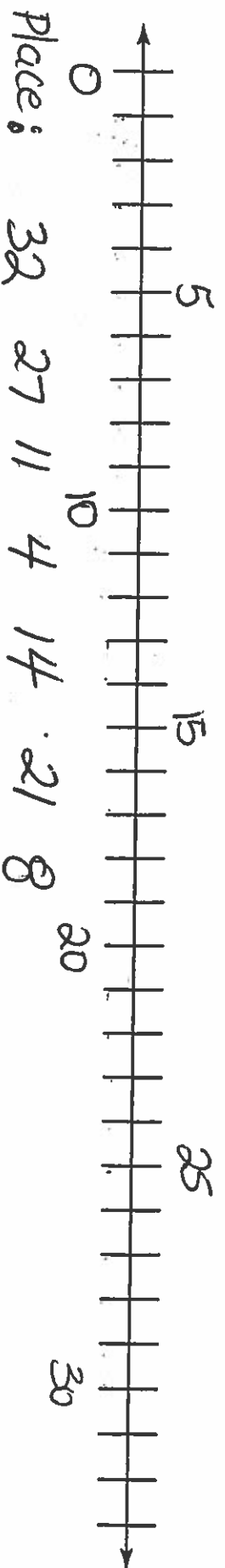
5. Find what is wrong with each number line below.

Explain how you know.









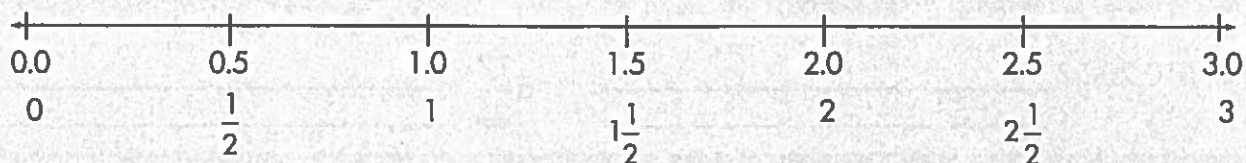
Name _____

Number Line

9



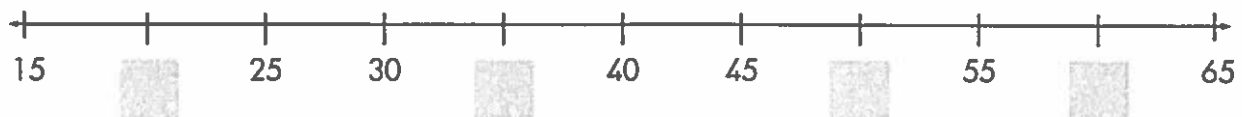
A number line shows the order of numbers.



Complete the number line.



Complete the number line.



Complete the number line using fractions.



2.7 Comparing and Ordering Numbers Page 1

Student Book pages 54–56

GOAL

Compare and order numbers to 1000.

Problem

Some people tried to beat these world records:

- greatest number of people popping balloons at one time
- greatest number of people throwing snowballs at one time
- greatest number of people skipping rope at one time.



You will need

- counters



- a place value chart

Thousands	Hundreds	Tens	Ones

Were there more balloon poppers, snowball throwers, or rope skippers?

Step 1: Model each number using counters and a place value chart.

Draw your models. The first one has been done for you.

Balloon Poppers

Number	Hundreds	Tens	Ones
603			

Snowball Throwers

Number	Hundreds	Tens	Ones
473			

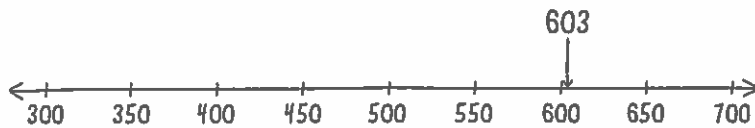
Rope Skippers

Number	Hundreds	Tens	Ones
356			

2.7 Comparing and Ordering Numbers Page 2

Step 2: Estimate to place 603, 473, and 356 on the number line.

603 has been placed for you.



Step 3: Circle the least number.

Use the number line to help you.

603 473 356

Step 4: Compare the numbers using $<$, $=$, or $>$.

The first one is done for you.

Hint: $<$ means "less than."

$=$ means "equal to."

$>$ means "greater than."

603 $>$ 356

473 _____ 603

356 _____ 473

Reflecting

Write a number between 356 and 603. _____

What number is in the hundreds place? _____

What number is in the tens place? _____

Scaffolding for Lesson 7, Questions 4 & 6 Page 2

STUDENT BOOK PAGE 56

6. What numbers are missing in each pattern? Use the charts to help you.

a) 4326, 4336, _____, _____, 4366

Thousands	Hundreds	Tens	Ones
4	3	2	6
4	3	3	6
4	3		
4	3		
4	3	6	6

b) 7216, _____, _____, _____, 7616, 7716

Thousands	Hundreds	Tens	Ones
7	2	1	6
			6
			6
			6
7	6	1	6
7	7	1	6

Name: _____ Date: _____

Scaffolding for Lesson 7, Questions 4 & 6 Page 1

STUDENT BOOK PAGE 56

4. Some world record collections are listed in the chart.

Fill in the digits for each number on the place value chart below.

	Number	Thousands	Hundreds	Tens	Ones
soft-drink cans	3284				
car bumper stickers	3230				
unused bandages	4500				
yo-yos	4251				
bottled water labels	5115				
pencils	6885				

a) Which number is the least? _____

How do you know? _____

b) Which number is the greatest? _____

How do you know? _____

Name _____

Comparing Numbers

7

★ Use $>$, $<$, and $=$ signs to compare whole numbers.

$91 = 41 + 50$

91 is equal to $41 + 50$

$72 > 68$

72 is greater than 68

$549 < 570$

549 is less than 570

Complete the number sentence with the correct symbol: $>$, $<$, or $=$.

1) $20 + 5 \bigcirc 37$

$9 \bigcirc 0$

2) $58 \bigcirc 38 + 20$

$17 \bigcirc 42$

3) $348 \bigcirc 358$

$2,679 \bigcirc 3,104$

4) $87 \bigcirc 78$

$620 \bigcirc 531$

5) $1,254 \bigcirc 1,234$

$297 \bigcirc 277 + 30$

Write the numbers in order from lowest to highest.

6) 51, 112, 3, $25 + 27$ _____

7) 8, $2 + 3$, 11, 1 _____

8) 94, 27, 72, $50 + 43$ _____

9) $28 + 10$, 28, 14, 55 _____

10) 49; 149; 3,490; 3,049 _____

11) 71, 701, 17, 170, 107 _____

Chapter 2
Lesson 7

Name: _____ Date: _____

Comparing and Ordering Numbers

GOAL

Compare and order numbers to 10 000.

1. Compare the numbers using $<$ or $>$.

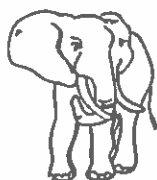
The first one is done for you.

- | | |
|------------------------|------------------------|
| a) $3000 \square 2000$ | d) $1500 \square 3500$ |
| b) $5000 \square 7000$ | e) $1300 \square 1350$ |
| c) $3900 \square 2900$ | f) $5860 \square 5870$ |

2. Fill in each box using $<$ or $>$.

- | | |
|------------------------|------------------------|
| a) $1867 \square 1868$ | d) $4892 \square 4792$ |
| b) $5591 \square 5590$ | e) $3333 \square 8482$ |
| c) $8473 \square 8394$ | f) $1661 \square 1664$ |

3. Here are the masses of some heavy animals.



elephant
6168 kg



hippopotamus
3207 kg



rhinoceros
2273 kg



baby whale
3636 kg

a) Which animal is the heaviest?

Explain how you know.

b) Order the animals from lightest to heaviest.

At-Home Help

The symbol $<$ means that the 1st number is less than the 2nd number.

The symbol $>$ means that the 1st number is greater than the 2nd number.

The symbols $<$ and $>$ always point to the number that is less. For example:

$$9600 > 8600$$

$$4126 < 4127$$

2.8 Communicating about Ordering Numbers Page 1

Student Book pages 58–59

GOAL

Explain how to order a set of numbers in a complete, clear, and organized way.

You will need

- counters



- a place value chart

Thousands	Hundreds	Tens	Ones

Problem

Emily ordered the scores for her school's skipping contest.

Top Scores

302 jumps

222 jumps

203 jumps

How can Emily explain how she ordered the scores?

Step 1: Model the numbers using counters and a place value chart.

Draw your models. The first one has been done for you.

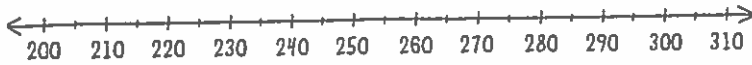
Number	Hundreds	Tens	Ones
302			

Number	Hundreds	Tens	Ones
222			

Number	Hundreds	Tens	Ones
203			

2.8 Communicating about Ordering Numbers Page 2

Step 2: Estimate to mark the numbers on the number line.



Step 3: Order the numbers from least to greatest.

Use your models to help you.

_____, _____, _____

Explain the steps you used to order the numbers.

Step 4: List some ways you could improve your explanation.

Use the Communication Checklist.

Communication Checklist

- ✓ Did you show all the steps?
- ✓ Did you explain your thinking?

Reflecting

How does the Communication Checklist help you write a good explanation?

2.8 Communicating about Ordering Numbers Page 1

Student Book pages 58–59

GOAL

Explain how to order a set of numbers in a complete, clear, and organized way.

Checking

1. Cory put these game scores in order from greatest to least.

865, 1876, 1540, 86, 1000

Here is the rough copy explaining his steps.

Rough Copy
I wrote 1000 in the middle.
I wrote the 4-digit numbers first.
I wrote the numbers less than 1000 last.
1876 1540 1000 86 865
They were all in order except 86 and 865, so I switched them.
1876 1540 1000 865 86

Communication Checklist

- ✓ Did you show all the steps?
- ✓ Did you explain your thinking?

Look at the Communication Checklist to improve his rough copy.

List 2 ways Cory could improve his rough copy.

1. _____

2. _____

2.8 Communicating about Ordering Numbers Page 2

Practising

2. a) Order these numbers from greatest to least.

3867, 3869, 392, 473, 450

_____, _____, _____, _____, _____

b) How did you order the numbers?

Write a rough copy.

c) Use the Communication Checklist to find ways to improve your rough copy.

Write a good copy.

Communication Checklist

- ✓ Did you show all the steps?
- ✓ Did you explain your thinking?

Communicating about Ordering Numbers

GOAL

Explain how to order a set of numbers in a complete, clear, and organized way.

1. Order each set of numbers from greatest to least.

a) 1028, 599, 634, 4921

b) 8032, 1045, 350, 1234

c) 4602, 5602, 3602, 2602

d) 6341, 6743, 6064, 6340

e) 5900, 8300, 2000, 9200, 3800

f) 7734, 55, 7783, 1092, 945

2. Order each set of numbers from greatest to least.
Explain your thinking.

a) 4099, 240, 3912, 5700, 98

b) 1085, 4093, 1377, 3451

At-Home Help**Communication Checklist**

- ✓ Did you show all the steps?
- ✓ Did you explain your thinking?

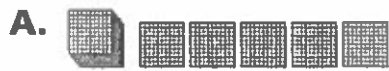
Chapter 2

Test Yourself

Circle the correct answer.

1. Jade made 25 necklaces. Each necklace has 100 beads.

Which model represents the number of beads as thousands and hundreds?



2. What number is modelled on the place value chart?

Thousands	Hundreds	Tens	Ones

- A. 4 thousands + 1 hundred + 5 tens + 2 ones
 B. 2 thousands + 1 hundred + 4 tens + 5 ones
 C. 5 thousands + 1 hundred + 2 tens + 4 ones
 D. 1 thousand + 4 hundreds + 5 tens + 2 ones
3. Which number shows five thousand three hundred twenty-five in standard form?
 A. 5235 B. 5325 C. 2355 D. 3525
4. What is the missing number on the number line?



- A. 2660 B. 2675 C. 2700 D. 2725
5. Which set of numbers is in correct order from greatest to least?
 A. 8721, 2934, 1184, 1023, 976 C. 8372, 5000, 3721, 9046, 2088
 B. 7120, 4623, 4817, 3266, 70 D. 83, 129, 5932, 7473, 9981

Name: _____ Date: _____

Chapter 2 Test Page 1

31

1. How many \$100 bills would you need to pay for each?

a)



b)



c)



3

2. How many \$10 bills would you need to pay for each?

a)



b)



c)

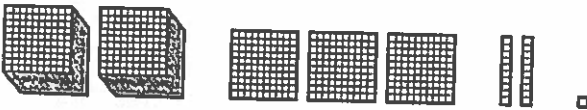


3

3. Sketch base ten blocks to model the number four thousand five hundred six.

T

4. Write the numeral for this number.



T

5. Jesse has 6840 stamps in his stamp collection.

- a) Model 6840 with the least number of blocks possible. Sketch the blocks.

T

- b) Write 6840 in expanded form using numbers and using words.

T

110

Name: _____ Date: _____

Chapter 2 Test Page 2

6. Write each number in standard form.

a) $6000 + 500 + 2$ _____

b) nine thousand forty _____

7. Describe the number 8500 in two ways. (Write as expanded and in words)

8. Write each number in words.

a) 3602 _____

b) 9007 _____

9. Draw a number line and estimate the location of these numbers: 5412, 6230, 5003.



10. Which numbers are missing in each pattern?

a) 4112, 4122, 4132, _____, _____, 4162

b) 2350, 2450, _____, _____, _____, 2850

11. Which numbers on each number line are misplaced? And explain why briefly.



12. Place digits in the boxes to make each number sentence true.

a) $\underline{\quad}312 > 24\underline{\quad}$ and b) $4\underline{\quad}92 < \underline{\quad}624$

13. Order these numbers from least to greatest:

8511 2290 1094 5483 6503

_____, _____, _____, _____, _____