math MAMMOTH

Grade 2-B Worktext
International Version (Canada)

Light Blue Series

- **T**hree-digit numbers
- **M**easuring
- **R**egrouping in addition and subtraction
- **M**oney
- **I**ntroduction to multiplication

By Maria Miller

Contents

Chapter 8:
Regrouping in Addition and Subtraction

Chapter 9: Money

Chapter 10: Exploring Multiplication

Foreword

Math Mammoth International Version Grade 2-A and *Grade 2-B* worktexts comprise a complete maths curriculum for the second grade mathematics studies.

This curriculum is essentially the same as the version of Math Mammoth Grade 2 sold in the United States (US version), only customized for Canadian audience in a few ways. The US version is aligned to the Common Core Standards, so it may not be properly aligned to the second grade standards in your province. However, you can probably find material for any missing topics in neighbouring grades. For example, let's say that your province mandates the study of multiplication tables in grade 4. That material is not found in Math Mammoth Grade 4, but it does appear in Math Mammoth Grade 3-A. So, you can simply re-order the material to solve most incompatibilities between different standards.

The International version of Math Mammoth differs from the US version in these aspects:

- The currency used in the money chapters in grades 1-3 is the Canadian dollar. (Additionally, the download version of this curriculum includes the chapter on money for European, South African, US, British, Australian and New Zealand currencies, in grades 1-3.)
- The curriculum teaches the metric measurement units. Imperial units, such as inches and pounds, are not taught.
- The spelling conforms to British international standards.
- Paper size is Letter.

The main areas of study for second grade are:

1. Understanding of the base-ten system within 1000. This includes place value with three-digit numbers, skip-counting in fives, tens, and multiples of hundreds, tens, and ones (within 1000) (chapters 6 and 8);
2. Develop fluency with addition and subtraction, including solving word problems, regrouping in addition, and regrouping in subtraction (chapters 1, 3, 4, and 8);
3. Using standard units of measure (chapter 7);
4. Describing and analyzing shapes (chapter 5).

Additional topics we study are time, money, introduction to multiplication, and bar graphs and picture graphs.

This book, 2-B, covers three-digit numbers (chapter 6), measuring (chapter 7), regrouping in addition and subtraction (chapter 8), counting coins (chapter 9) and an introduction to multiplication (chapter 10). The rest of the topics are covered in the 2-A student worktext.

Some important points to keep in mind when using the curriculum:

- These two books (parts A and B) are like a "framework", but you still have a lot of liberty in planning your child's studies. While addition and subtraction topics are best studied in the order they are presented, feel free to go through the sections on shapes, measurement, clock and money in any order you like.

  This is especially advisable if your child is either "stuck" or is perhaps getting bored with some particular topic. Sometimes the concept the child was stuck on can become clear after a break from the topic.

- Math Mammoth is mastery-based, which means it concentrates on a few major topics at a time, in order to study them in depth. However, you can still use it in a *spiral* manner, if you prefer. Simply have your child study in 2-3 chapters simultaneously. This type of flexible use of the curriculum enables you to truly individualize the instruction for your child.

- Don't automatically assign all the exercises. Use your judgment, trying to assign just enough for your child's needs. You can use the skipped exercises later for revision. For most children, I recommend to start out by assigning about half of the available exercises. Adjust as necessary.
- For revision, the curriculum includes a worksheet maker (Internet access required), mixed revision lessons, additional cumulative revision lessons, and the word problems continually require usage of past concepts. Please see more information about revision (and other topics) in the FAQ at **https://www.mathmammoth.com/faq-lightblue.php**

I heartily recommend that you view the full user guide for your grade level, available at **https://www.mathmammoth.com/userguides/**

Lastly, you can find free videos matched to the curriculum at **https://www.mathmammoth.com/videos/**

I wish you success in teaching math!

Maria Miller, the author

Chapter 6: Three-Digit Numbers
Introduction

The sixth chapter of *Math Mammoth Grade 2-B* deals with three-digit numbers, or numbers up to one thousand.

The first lesson presents three-digit numbers with hundred-flats, ten-pillars, and one-cubes. Next, we study three-digit numbers on a number line. In the lesson *Forming Numbers—and Breaking Them Apart*, the student practises separating three-digit numbers into the different "parts": hundreds, tens, and ones. These first three lessons provide the basis for understanding three-digit numbers and place value.

Next, we study *Skip-Counting by Tens*, and also by twos and fives. Then we compare and order three-digit numbers.

After this, the lessons change to mental maths. First, we study *Adding and Subtracting Whole Hundreds* mentally. Students practise completing the next hundred (problems such as 260 + ____ = 300). Then it is time to add and subtract whole tens mentally. Along the way, students also solve word problems and other types of problems.

The chapter ends with some bar graphs and pictographs, which provide a nice application for working with three-digit numbers.

The Lessons

Helpful Resources on the Internet

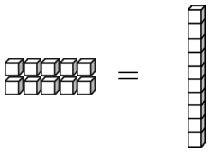
We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr2ch6

Scan me

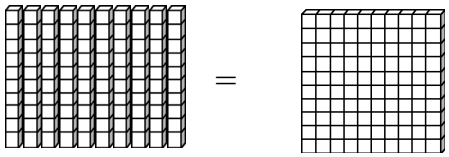
Three-Digit Numbers

Ten ones make a ten:



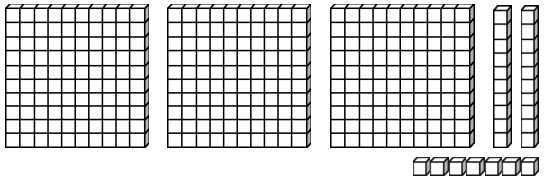
10 ones = 10

Ten ten-pillars make ONE HUNDRED:



10 tens = 100

Write hundreds, tens, and ones in their own columns:

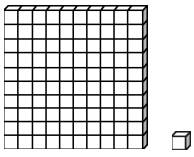


hundreds	tens	ones
3	2	7

three hundred twenty-seven

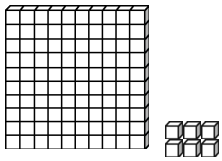
1. Count the ones, tens, and hundreds, and fill in the missing parts.

a. one hundred one



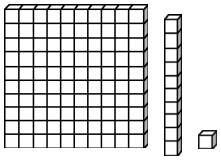
hundreds	tens	ones
1	0	1

b. one hundred six



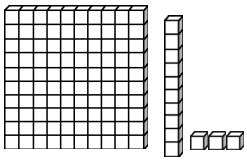
hundreds	tens	ones

c. one hundred eleven



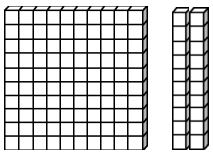
hundreds	tens	ones
1	1	1

d. one hundred thirteen



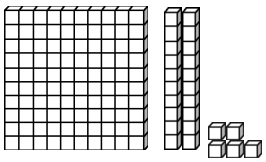
hundreds	tens	ones

e. one hundred twenty



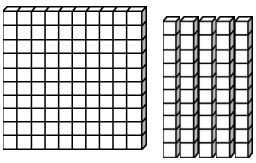
hundreds	tens	ones

f. one hundred twenty-five



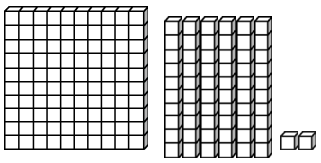
hundreds	tens	ones

g. one hundred fifty



hundreds	tens	ones

h. one hundred sixty-two

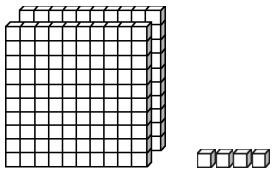


hundreds	tens	ones

2. Count the ones, tens, and hundreds, and fill in the missing parts.

a. *two hundred*

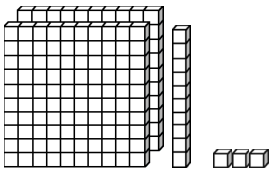
four



hundreds	tens	ones
2	0	4

b. *two hundred*

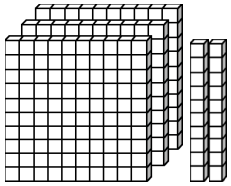
thirteen



hundreds	tens	ones

c. _____

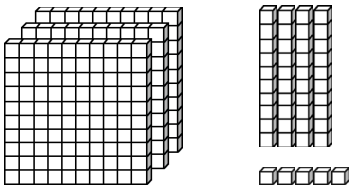
_____



hundreds	tens	ones

d. _____

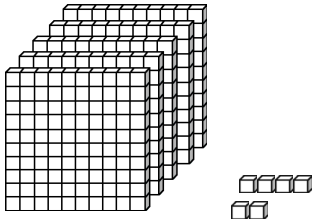
_____



H	T	O

e. _____

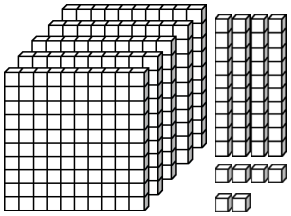
_____



H	T	O

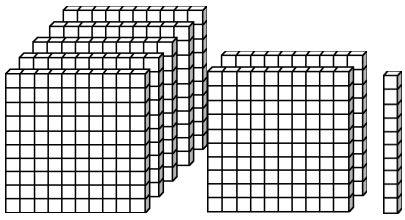
f. _____

_____



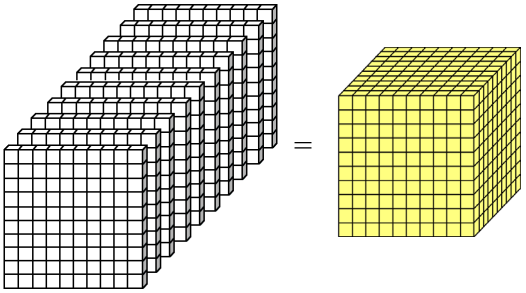
H	T	O

g. _____



H	T	O

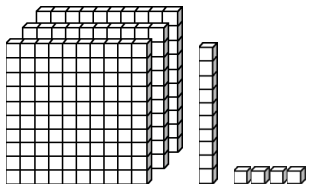
h. Ten hundreds = One thousand



Th	H	T	O
1	0	0	0

3. Write a sum of the hundreds, tens, and ones shown in the picture.
Also write the number.

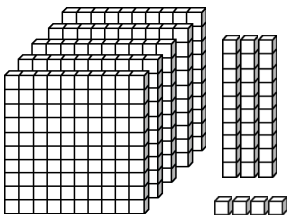
a.



_____ + _____ + _____

H	T	O

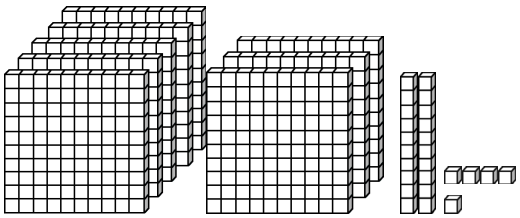
b.



_____ + _____ + _____

H	T	O

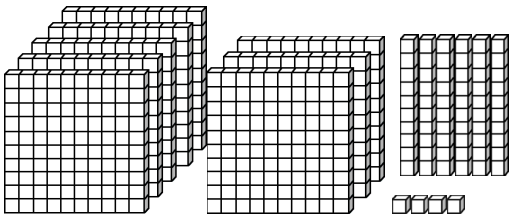
c.



_____ + _____ + _____

H	T	O

d.

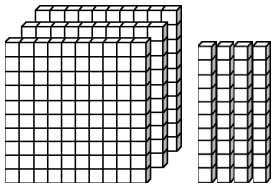


_____ + _____ + _____

H	T	O

<u>Notice:</u> There are NO ones.
Write a zero for ones in the sum.

e.

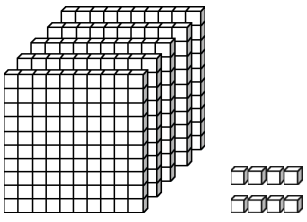


_____ + _____ + 0

H	T	O

<u>Notice:</u> There are NO tens.
Write a zero for tens in the sum.

f.

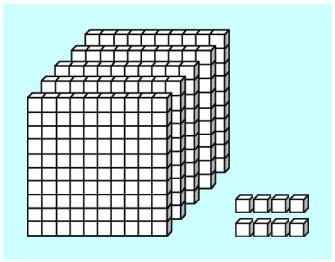
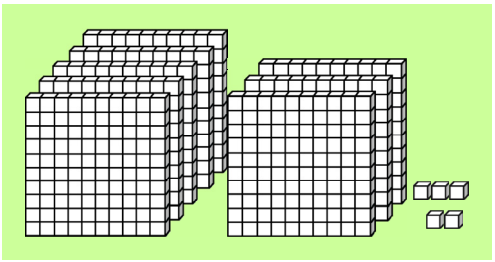
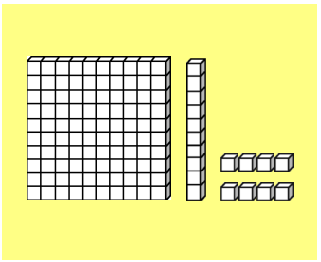
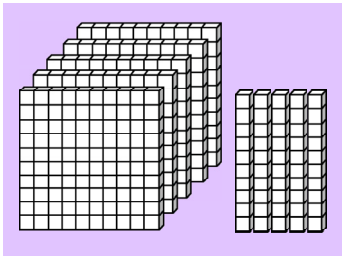
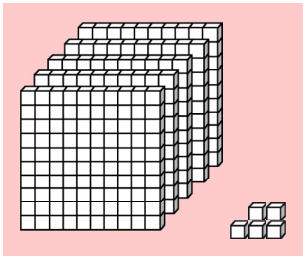
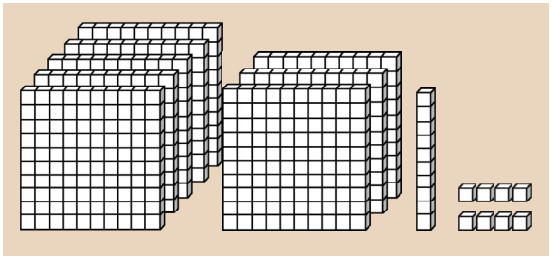


_____ + 0 + _____

H	T	O

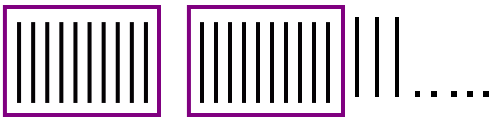
4. Match the numbers and the sums to the correct pictures.

505 818 550 805

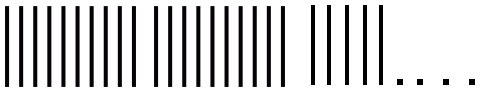







500 + 8 500 + 5 100 + 10 + 8

5. The dots are ones, the pillars are tens. Group together 10 ten-pillars to make a hundred.

a. 

235

b. 

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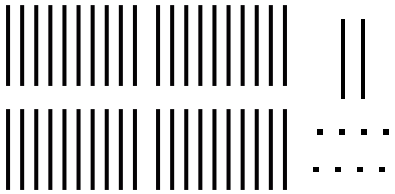
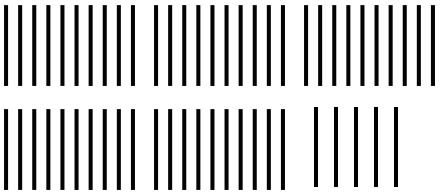
c. 

_____

d. 

_____

How many tens are in a thousand?

Puzzle Corner

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Patterns and Problems

1. Three children played a card game where you get points for the cards left in your hand. The person who has the least points at the end of the game is the winner. The table shows the point count at a certain time in the game:

   Then, Daniel got 100 more points and Brian got 30 more points (Jerry got none). Add those to their point counts and write the new point counts in the grid. Who won the game?

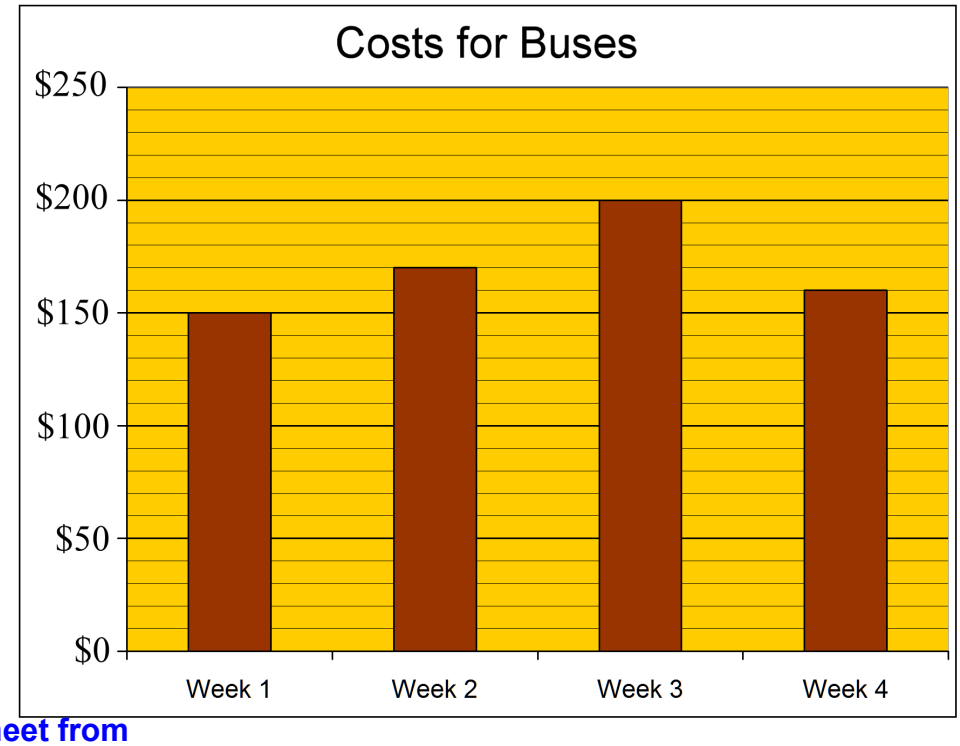
Jerry	Daniel	Brian
540	270	330

2. The bar graph shows how much money the Smith family spent for riding buses in four different weeks.

   a. Mark above each bar how much they spent for buses in dollars.

   b. How much more did they pay for week 3 than for week 4?

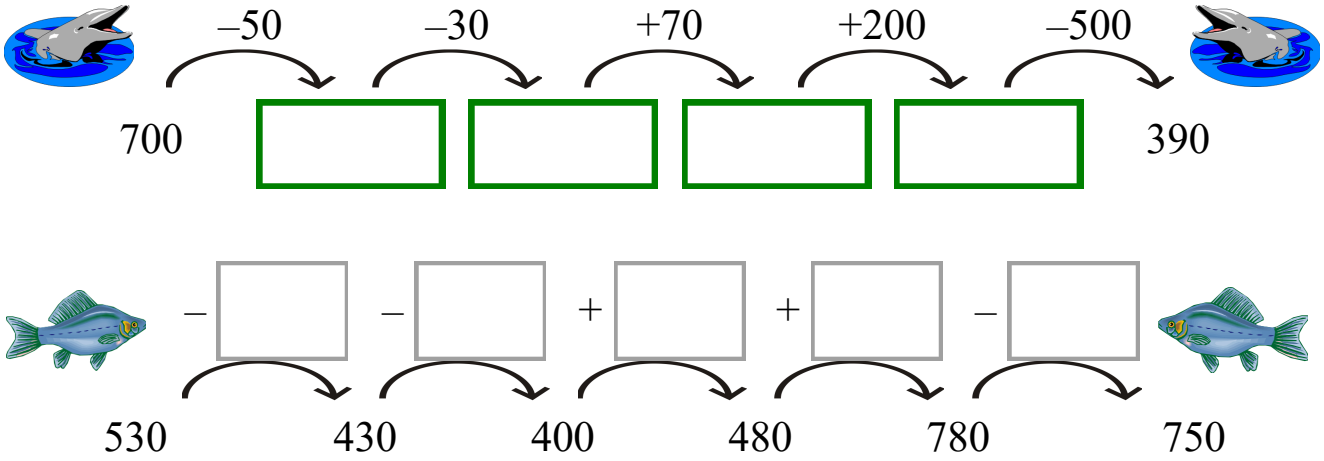
   c. How much more did they pay for week 2 than for week 1?



3. Count by 20s, and fill in the grid.

520	540	560		
620				
820				
				1 000

4. Fill in.



5. Continue the patterns!

a.	b.
590 – 60 = _____	770 + 10 = _____
590 – 70 = _____	770 + 20 = _____
590 – 80 = _____	770 + 30 = _____
590 – _____ = _____	770 + _____ = _____
590 – _____ = _____	770 + _____ = _____
590 – _____ = _____	770 + _____ = _____

6. Find what number goes in the oval.

Subtractions where the TOTAL is missing:	**a.** ◯ − 60 = 220	**b.** ◯ − 80 = 510
	c. ◯ − 500 = 100	**d.** ◯ − 310 = 60

e. 450 + ◯ = 750	**f.** 716 + ◯ = 776	"How many more" additions
g. 530 + ◯ = 590	**h.** 637 + ◯ = 697	

What was subtracted is missing:	**i.** 1 000 − ◯ = 700	**j.** 740 − ◯ = 40
	k. 667 − ◯ = 607	**l.** 999 − ◯ = 299

Find what number goes into the oval!

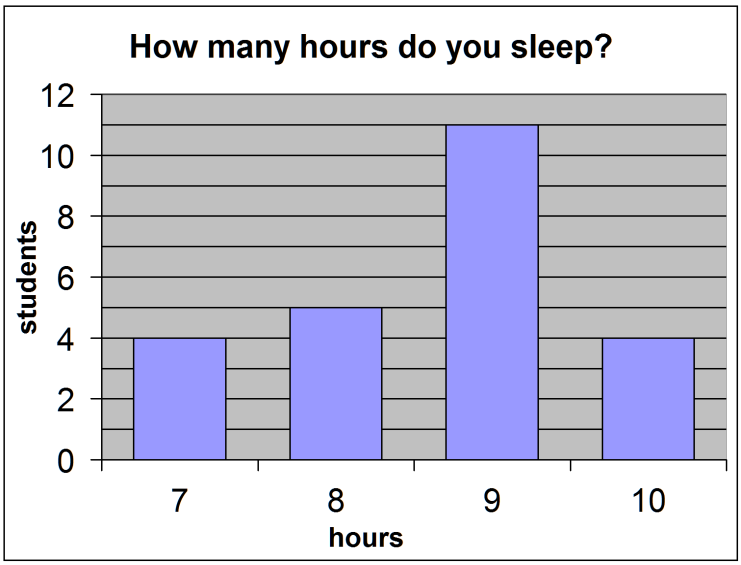
Puzzle Corner

a. 980 − 200 − ◯ = 80	**b.** 784 − ◯ − 40 = 704
c. 210 + 50 + ◯ = 310	**d.** 600 + ◯ + 30 = 720

Bar Graphs and Pictographs

Bar graphs use "bars" or rectangles in them to show some information.

1. This bar graph shows how many hours some second grade students slept last night.



a. How many students slept 8 hours last night?

b. How many students slept 10 hours last night?

c. *How many more* students slept 9 hours than the ones who slept 10 hours?

d. A school nurse said that children need to sleep well for at least 8 hours. How many students slept *less than* 8 hours last night?

e. How many students slept *at least* 8 hours last night?

f. Make a pictograph. Draw ONE sleepy face to mean 2 students.

	Students
Students who slept less than 8 hours	
Students who slept at least 8 hours	

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Chapter 7: Measuring
Introduction

The seventh chapter of *Math Mammoth Grade 2-B* covers measuring length and weight. The student measures and estimates length in centimetres, and learns to measure to the nearest centimetre. The bigger units — metres, and kilometres — are introduced, but in this grade level the students do not yet study conversions between the units.

If you have the downloadable version of this book (PDF file), you need to print this file as 100%, not "shrink to fit," "print to fit," or similar. If you print "shrink to fit," some exercises about centimetres will not come out right, but will be "shrunk" compared to reality.

The lessons on measuring weight have several activities to do at home using a bathroom scales. The goal is to let students become familiar with kilograms, and have an idea of how many kilograms some common things weigh.

When it comes to measuring, experience is the best teacher. So, encourage your child to use measuring devices (such as a measuring tape, ruler, and scales), and to "play" with them. In this way, the various measuring units start to become a normal part of his/her life, and will never be forgotten.

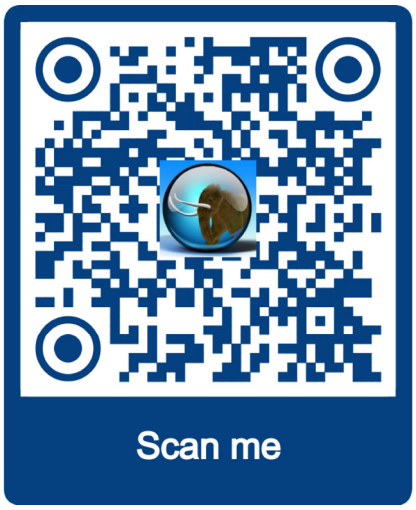
The concrete activities we do in second grade are laying an important foundation for familiarizing the students with measuring units. In third grade, the study of measuring turns toward conversions between the different units. We will study volume in later grades.

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr2ch7int

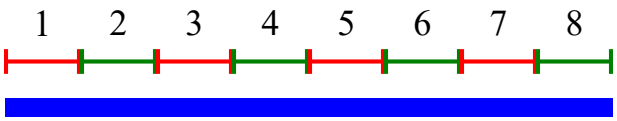


Measuring to the Nearest Centimetre

Remember? We can measure how long things are using *centimetres*.

This line is 1 centimetre long: ⊢⊣

A centimetre is written in short form as "cm." This blue line is 8 cm long. →

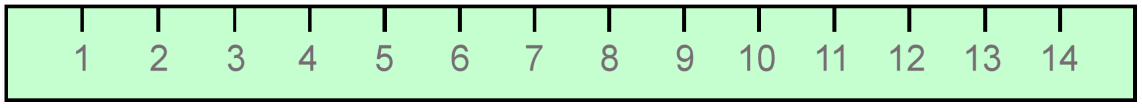


1. How many centimetres long are these lines?

a. _____ cm

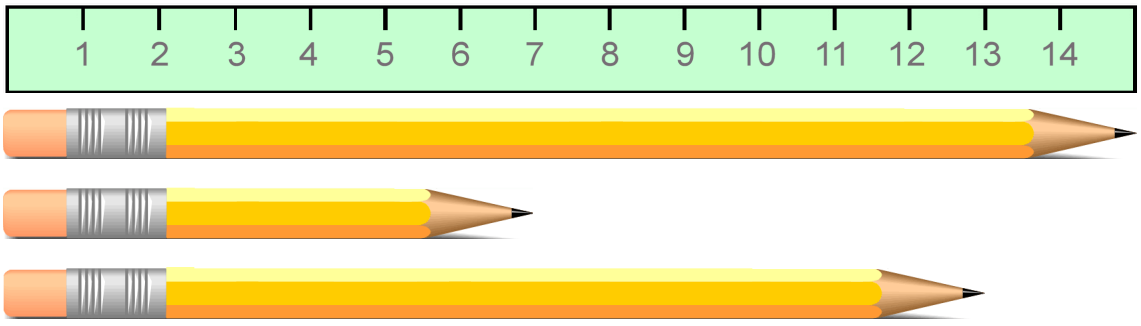
b. _____ cm

c. _____ cm



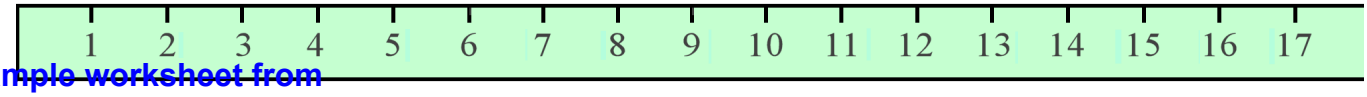
d. _____ cm

2. Measure the pencils with a centimetre ruler. If you don't have one, you can cut out the one from the bottom of this page. Then answer the questions.



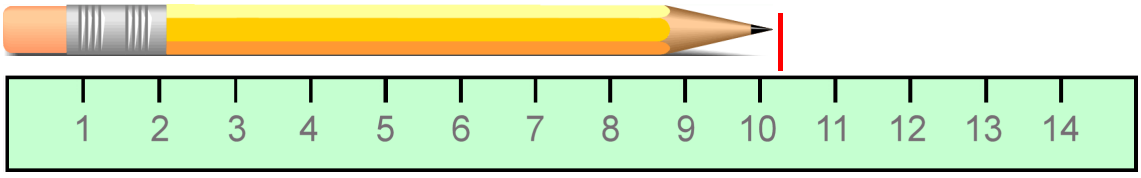
a. How much longer is pencil #1 than pencil #2? _____ cm

b. How much longer is pencil #3 than pencil #2? _____ cm

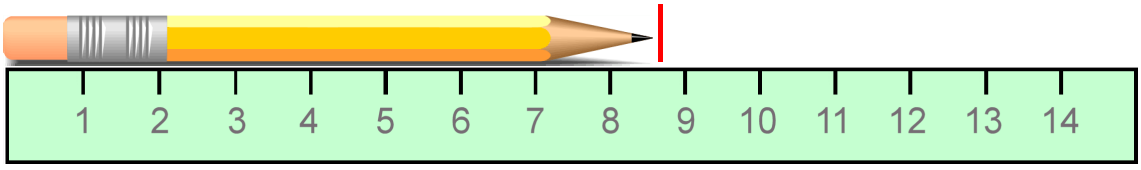


Most things are NOT exactly a certain number of whole centimetres.
You can measure them to the nearest centimetre.

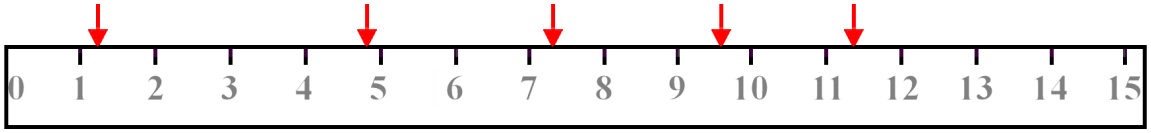
The pencil below is a little over 10 cm long. It is *about 10* cm long.



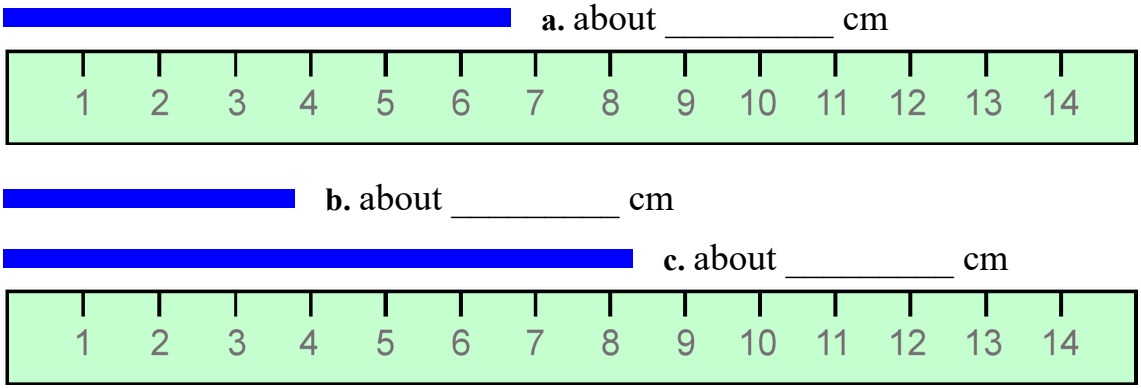
This pencil is about 9 cm long. The end of the pencil is closer to 9 cm than to 8 cm.



3. Circle the number that is nearest to each arrow.



4. Measure the lines to the nearest centimetre.



5. This line is 1 cm long: ⊢—⊣ . Your finger is probably about that wide; put it on top of the 1-cm line and check! Guess how long these lines are. Then measure.

	My guess:	**Measurement:**
a. ———————————	about _____ cm	about _____ cm
b. ————	about _____ cm	about _____ cm
c. ———————	about _____ cm	about _____ cm

6. **a.** Find two small objects. Measure to find *about* how many centimetres longer one is than the other.

   The _____ is *about* _____ cm longer

   than the _____.

   b. Find two other small objects. Measure to find *about* how many centimetres longer one is than the other.

   The _____ is *about* _____ cm longer

   than the _____.

7. Draw some lines here or on blank paper. Use a ruler. Hold the ruler down tight with one hand, while drawing the line with the other. It takes some practice!

   a. 6 cm long

   b. 3 cm long

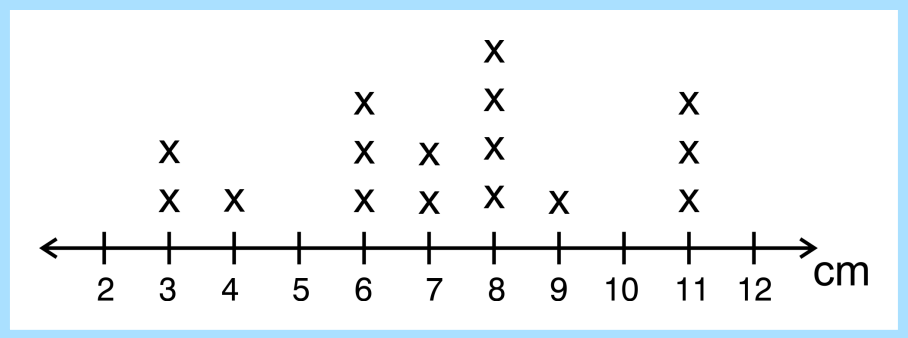
   c. 12 cm long

8. Find some small objects. First GUESS how long or tall they are. Then measure. If the item is not exactly so-many centimetres long, then measure it to the nearest centimetre and write "about" before the centimetre-amount, such as *about 8 cm.*

Item	GUESS	MEASUREMENT
	cm	cm
	cm	cm
	cm	cm
	cm	cm
	cm	cm

Some More Measuring

1. Jessie measured the length of a bunch of pencils at her home. She recorded her results in a line plot below. For each pencil, she put an "x" mark above the number line, to show how many centimetres long it was.



a. How many of Jessie's pencils were 3 cm long?

b. How many were 8 cm long?

c. How many pencils were 9 cm or longer?

d. How many pencils were 5 cm or shorter?

e. How long is Jessie's longest pencil? Her shortest pencil?

How much longer is the longest pencil than the shortest pencil?

2. Join these dots with lines to get a shape with four sides. What was the name for a four-sided shape? (If you don't remember, check chapter 5, lesson "Shapes Revision".)

_____

Measure its sides to the nearest centimetre. Write "about ___ cm" next to each side.

How many centimetres is the *perimeter?* (all the way around the shape)

It is _____ cm.

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Chapter 8: Regrouping in Addition and Subtraction

Introduction

The eighth chapter of *Math Mammoth Grade 2-B* deals with regrouping in addition (carrying) and in subtraction (borrowing).

In the first lesson, the student adds three-digit numbers, regrouping in tens, but there is no regrouping in hundreds. Students already know how to regroup two-digit numbers, so this lesson only extends that knowledge to numbers that have three digits.

In the next lesson, students regroup ten tens as a hundred (or carry to the hundreds). This is first illustrated with visual models. You can do the exercises that include visual models with manipulatives instead (base ten blocks) if you prefer.

Then we study regrouping twice: ten ones form a new ten, and then ten tens form a new hundred. Again, students work first with visual models, with the aim of helping them to understand the concept itself. Then, they do the process with numbers only, adding in columns.

Next, we study regrouping in subtraction, starting with two-digit numbers. First, students learn to break 1 ten into 10 ones. For example, 5 tens 4 ones is written as 4 tens 14 ones—one ten is "broken down" into 10 ones. This is the process of regrouping: one of the tens "changes groups" from being with the tens to being with the ones.

After students have mastered that, then it is time to use regrouping in subtraction problems and learn the traditional way of subtracting in columns (the numbers are written under each other).

Then we study word problems with more and fewer, and also several techniques or "tricks" for mental subtraction. The word problems in the chapter require both addition and subtraction. I do not like just putting subtraction word problems in a lesson that is about subtraction. Students need to practise recognizing whether a problem requires addition or subtraction, so each set of word problems typically includes both kinds.

After this, it is time to study regrouping in subtraction with three-digit numbers. There are three cases:

1. Regrouping 1 ten as 10 ones, which is needed for 546 − 229.
2. Regrouping 1 hundred as 10 tens, which is needed for 728 − 441.
3. Regrouping two times (1 ten as 10 ones, and 1 hundred as 10 tens), which is needed for 725 − 448.
4. Regrouping with zero tens, which is needed for 405 − 278. First, we regroup 1 hundred as 10 tens, then 1 ten as 10 ones.

In second grade, we ONLY study cases (1) and (2) from the list above. The other two will be studied in third grade. Again, students first practise the regrouping process with visual models. You could use base-ten blocks instead.

In the end of the chapter, students encounter bar graphs again. They also play Euclid's game, which is meant as a fun, supplemental lesson. You may omit it if time does not allow.

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr2ch8

Scan me

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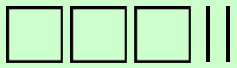
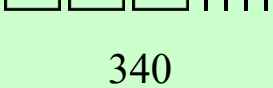
Regrouping One Hundred As 10 Tens

We need to subtract 170.... but we cannot take away 7 tens because there are only 2 tens.	→	"Break down" 1 HUNDRED as 10 tens. Now we can subtract! Take away 1 hundred and 7 tens. What is left? _____
	→	
320	→	**2 hundreds + 12 tens**

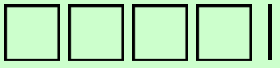
1. Break down 1 hundred into 10 tens (regroup). Draw squares for hundreds, sticks for tens, and dots for ones. Then take away (subtract) what is asked.

a. 

340 →

→ _____ hundreds + _____ tens

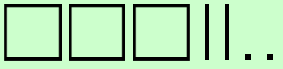
Take away 180. What is left? _____

b. 

410 →

→ _____ hundreds + _____ tens

Take away 250. What is left? _____

c. 

322 →

→ _____ hundreds + _____ tens + _____ ones

Take away 171. What is left? _____

d. 

254 →

→ _____ hundreds + _____ tens + _____ ones

Take away 174. What is left? _____

2. First, regroup 1 hundred as 10 tens. Then subtract. The first one is done for you.

a. 4 hundreds 5 tens 7 ones ⇨

	3 hundreds	15 tens	7 ones
–	2 hundreds	8 tens	2 ones
	1 hundreds	7 tens	5 ones

b. 7 hundreds 2 tens 1 one ⇨

	___ hundreds	___ tens	___ ones
–	3 hundreds	6 tens	1 one
	___ hundreds	___ tens	___ ones

c. 3 hundreds 2 tens 0 ones ⇨

	___ hundreds	___ tens	___ ones
–	2 hundreds	5 tens	0 ones
	___ hundreds	___ tens	___ ones

d. 7 hundreds 0 tens 6 ones ⇨

	___ hundreds	___ tens	___ ones
–	6 hundreds	2 tens	2 ones
	___ hundreds	___ tens	___ ones

e. 8 hundreds 0 tens 3 ones ⇨

	___ hundreds	___ tens	___ ones
–	5 hundreds	3 tens	1 one
	___ hundreds	___ tens	___ ones

3. How do you regroup when subtracting 947 – 282 (below)? Fill in Jane's explanation.

It would be easy, except I cannot subtract ____ tens from ____ tens. So, I need to take one of the ____ hundreds and break it down as tens. Now I will have only ____ hundreds but I will now get ___ tens. I can now subtract.

9 hundreds 4 tens 7 ones ⇨

	___ hundreds	___ tens	___ ones
–	2 hundreds	8 tens	2 ones
	___ hundreds	___ tens	___ ones

Compare how we write the regrouping when subtracting in columns.

5 hundreds
4 tens 7 ones

	4	hundreds	14	tens	7 ones
–	1	hundred	5	tens	2 ones
	3	hundreds	9	tens	5 ones

$$\begin{array}{r} {\scriptstyle 4\ \ 14} \\ 5\!\!\not\;\ 4\ 7 \\ -\ 1\ 5\ 2 \\ \hline 3\ 9\ 5 \end{array}$$

4. Fill in. Subtract both ways.

a.

4 hundreds
5 tens 6 ones

		hundreds		tens	ones
–	2	hundreds	7	tens	2 ones
		hundreds		tens	ones

$$\begin{array}{r} 4\ 5\ 6 \\ -\ 2\ 7\ 2 \\ \hline \end{array}$$

b.

6 hundreds
0 tens 5 ones

		hundreds		tens	ones
–	4	hundreds	3	tens	3 ones
		hundreds		tens	ones

$$\begin{array}{r} 6\ 0\ 5 \\ -\ 4\ 3\ 3 \\ \hline \end{array}$$

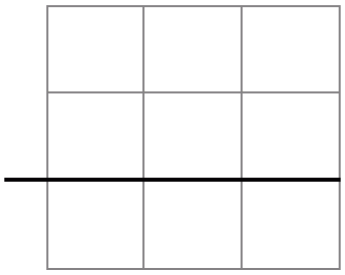
5. Subtract.

a. $\begin{array}{r} 9\ 2\ 6 \\ -\ 1\ 4\ 6 \\ \hline \end{array}$	**b.** $\begin{array}{r} 5\ 2\ 9 \\ -\ \ 9\ 5 \\ \hline \end{array}$	**c.** $\begin{array}{r} 4\ 1\ 4 \\ -\ 3\ 2\ 2 \\ \hline \end{array}$	**d.** $\begin{array}{r} 7\ 7\ 3 \\ -\ 5\ 3\ 6 \\ \hline \end{array}$
e. $\begin{array}{r} 6\ 7\ 0 \\ -\ 2\ 2\ 6 \\ \hline \end{array}$	**f.** $\begin{array}{r} 7\ 0\ 8 \\ -\ 1\ 5\ 6 \\ \hline \end{array}$	**g.** $\begin{array}{r} 5\ 0\ 3 \\ -\ 3\ 4\ 1 \\ \hline \end{array}$	**h.** $\begin{array}{r} 7\ 4\ 8 \\ -\ 3\ 7\ 6 \\ \hline \end{array}$

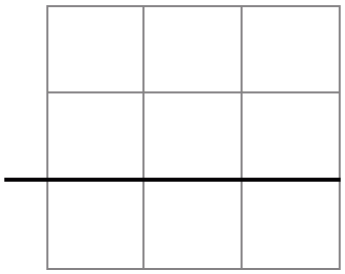
6. Solve the problems.

a. Marsha has 2 books to read. The first book has 270 pages, and the second book has 60 fewer pages than the first. How many pages does the second book have?

b. Lucy and Hilary played a game. Hilary got 192 points and Lucy got 433 points. How many more points did Lucy get than Hilary?



c. Lucy and Hilary played another game. This time Lucy got 215 points and Hilary got 93 points more than Lucy. How many points did Hilary get?



d. Dale and Mack caught some worms before they went fishing. Dale caught 14 worms, which was 11 fewer worms than what Mack caught. How many did Mack catch?

How many did they catch together?

Puzzle Corner

Figure out the missing numbers in these subtractions! You might need to regroup.

$\square\ \square\ 5$ $-\ 1\ 5\ \square$ $2\ 9\ 2$	$6\ \square\ 4$ $-\ \square\ 5\ \square$ $3\ 2\ 6$	$9\ \square\ \square$ $-\ \square\ 5\ 5$ $7\ 2\ 6$	$9\ 6\ \square$ $-\ \square\ 5\ 5$ $5\ \square\ 5$

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Revision, Chapter 8

1. Add.

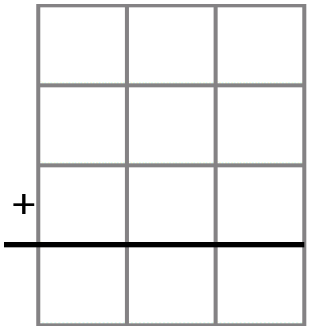
a.
$$\begin{array}{r} 215 \\ +\ 477 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 192 \\ +\ 225 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 303 \\ 128 \\ +\ 287 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 409 \\ 219 \\ +\ 136 \\ \hline \end{array}$$

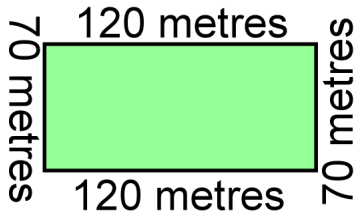
2. Susan bought three chairs.
Each chair cost $154.
How much was the total cost?

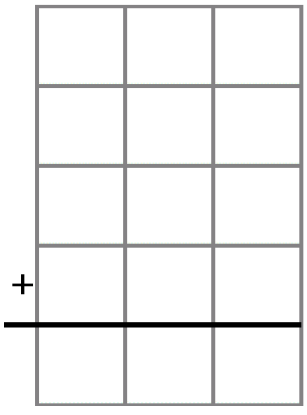


3. Add mentally. THINK of the new hundred you might get from adding the tens.

a.	b.	c.
80 + 40 = _____	90 + 90 = _____	690 + 50 = _____
780 + 40 = _____	240 + 50 = _____	470 + 80 = _____

4. Find how many metres it is if you walk all the way around this rectangle.





5. Subtract. Regroup if necessary. Check each subtraction by *adding your answer and the number you subtracted*.

a. $\begin{array}{r} 8\ 8 \\ -\ 5\ 4 \\ \hline \end{array}$ $\qquad$ $\begin{array}{r} +5\ 4 \\ \hline \end{array}$	**b.** $\begin{array}{r} 6\ 3 \\ -\ 4\ 8 \\ \hline \end{array}$ $\qquad$ $\begin{array}{r} + \\ \hline \end{array}$
c. $\begin{array}{r} 8\ 4 \\ -\ 4\ 9 \\ \hline \end{array}$ $\qquad$ $\begin{array}{r} + \\ \hline \end{array}$	**d.** $\begin{array}{r} 8\ 8\ 2 \\ -\ 1\ 5\ 9 \\ \hline \end{array}$ $\qquad$ $\begin{array}{r} + \\ \hline \end{array}$
e. $\begin{array}{r} 5\ 5\ 6 \\ -\ 3\ 9\ 1 \\ \hline \end{array}$ $\qquad$ $\begin{array}{r} + \\ \hline \end{array}$	**f.** $\begin{array}{r} 5\ 5\ 0 \\ -\ 2\ 4\ 6 \\ \hline \end{array}$ $\qquad$ $\begin{array}{r} + \\ \hline \end{array}$

6. Subtract using mental maths methods.

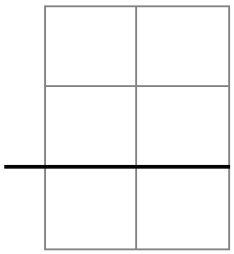
a. 15 – 7 = _____ 55 – 7 = _____	**b.** 13 – 5 = _____ 93 – 5 = _____	**c.** 82 – 77 = _____ 45 – 41 = _____
d. 80 – 71 = _____ 100 – 95 = _____	**e.** 56 – 40 = _____ 56 – 43 = _____	**f.** 78 – 35 = _____ 33 – 4 = _____

7. Find what numbers are missing.

a. $\begin{array}{r} 2\ \square\ 4 \\ +\ 4\ 7\ 7 \\ \hline 7\ 3\ 1 \end{array}$ $\qquad$ **b.** $\begin{array}{r} 5\ \square\ 9 \\ +\ \square\ 2\ 5 \\ \hline 9\ 1\ 4 \end{array}$ $\qquad$ **c.** $\begin{array}{r} 2\ 0\ \square \\ +\ 6\ \square\ 6 \\ \hline 8\ 9\ 2 \end{array}$ $\qquad$ **d.** $\begin{array}{r} 6\ 8\ \square \\ +\ \square\ 1\ 9 \\ \hline 9\ 0\ 0 \end{array}$

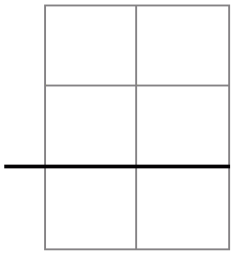
8. Solve.

a. Some people are riding on the bus. At the bus stop, 13 people get on. Now there are 52 people on the bus. How many were there originally?



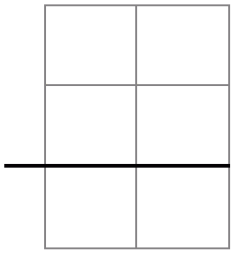
b. Nancy has 23 stuffed toys that she likes, and 16 that she does not like.

How many stuffed toys does Nancy have?

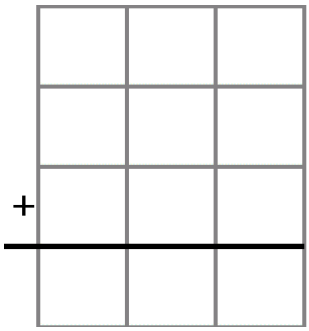


c. Nancy gave the 16 toys she does not like to her sister Alba. Now, Alba has 33 toys.

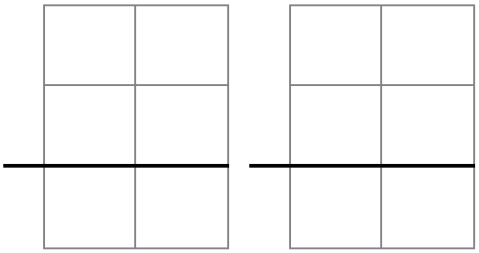
How many toys did Alba have before?



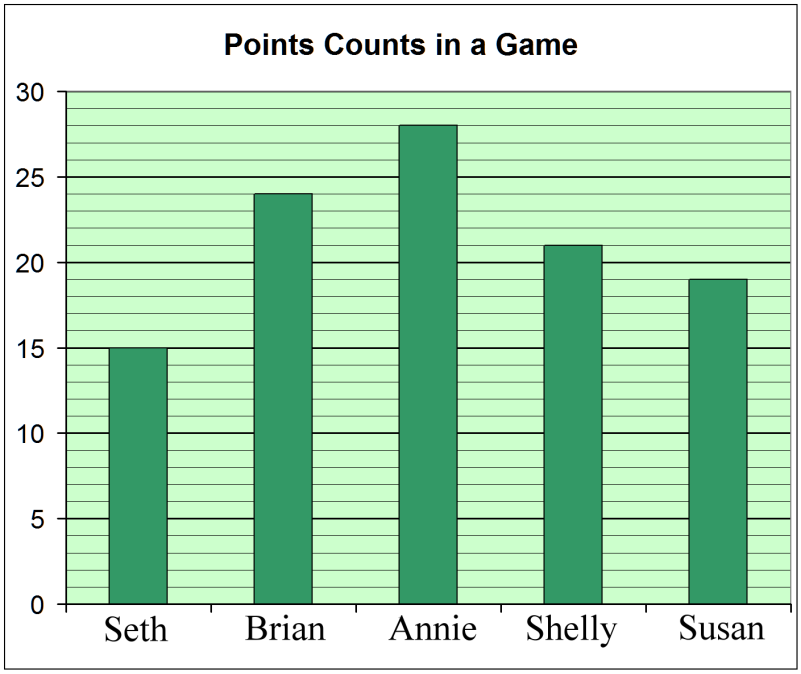
d. Linda had 465 points in a computer game. She played and got 145 more points. Then she also got a 90-point bonus! How many points does Linda have now?



e. Olivia did 26 jumping jacks, which was 14 fewer jumping jacks than what her brother Ben did. How many jumping jacks did Ben do?



9. **a.** Fill in the table with how many points the children got in the game.



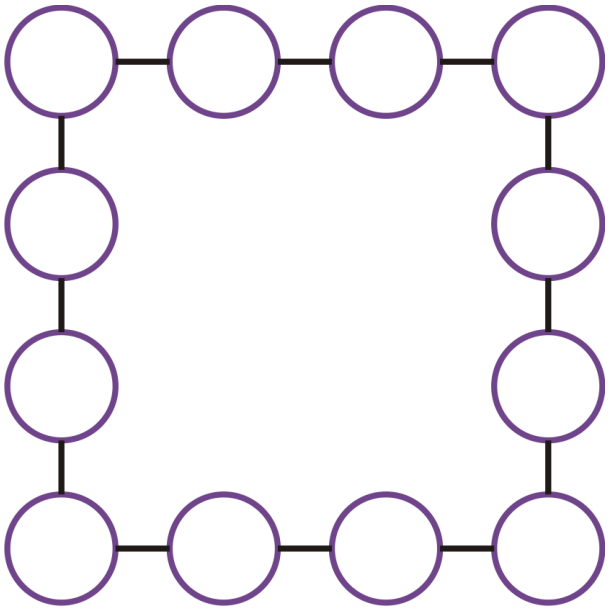
CHILD	POINTS
Seth	15
Brian	
Annie	
Shelly	
Susan	

b. How many fewer points did Brian get than Annie?

c. How many more points did Shelly get than Seth?

Can you place numbers from 1 through 12 into the circles so that the sum of each connecting line is 26?

Hint: The numbers that go in the top corners are 7 and 6, and the numbers that go in the bottom corners are 5 and 8.



Chapter 9: Money
Introduction

Chapter 9 of *Math Mammoth Grade 2-B* has to do with Canadian Money.

The main goal of this chapter is to be able to count Canadian coins and banknotes and find the amount of money in cents or in dollars. The child learns to write money amounts using dollars and cents, with the decimal point in between.

We also study how to find change by counting up. This topic is studied more in third grade.

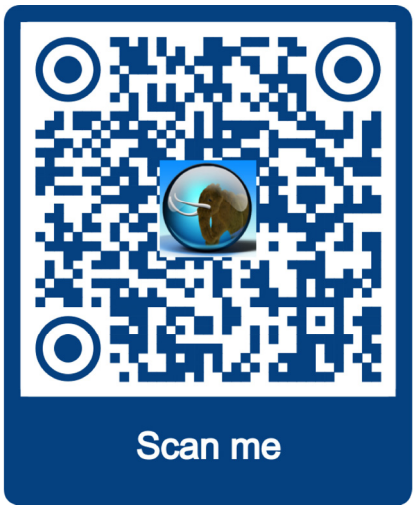
The download version of the curriculum includes this chapter also for US, European, British, Australian, and South African currencies, as separate PDF files.

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr2ch9#ca-money



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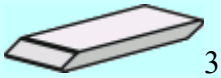
Counting Change

When you buy an item, you might not have the exact coins and bills for the amount it costs. You can then pay with a bill of a higher denomination, and get back some change.

To give change, or to check the change you are given, **<u>count up</u> from the price of the item until you reach the amount the customer gave**.



35¢

Customer gave $1

Count up from the price →

40¢

50¢

75¢

100¢

The change is these coins — 65 cents.

$2.70

Customer gave $5

Count up from the price →

$2.80

$2.90

$3.00

$5.00

The change is these coins — $2.30.

1. Draw the coins for the change.

a.

75¢

Customer gave $1

Change: _____

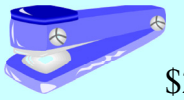
b.

$3.65

Customer gave $4

Change: _____

c.

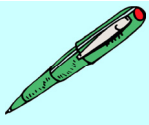


$2.45

Customer gave $5

Change: _____

d.



$1.55

Customer gave $5

Change: _____

2. Draw the coins for the change.

a.  $1.15

Customer gave $2 Change: _____

b.  $2.30

Customer gave $4. Change: _____

c.  $1.75

Customer gave $2 Change: _____

d.  $2.45

Customer gave $5. Change: _____

3. Find the change. You can draw or use real money to help.

a. A toy: $1.45 Customer gave $1.50. Change $_____	**b.** A drink: $0.85 Customer gave $1. Change $_____
c. A coffee: $0.95 Customer gave $2. Change $_____	**d.** A pencil set: $1.55 Customer gave $2. Change $_____
e. A book: $3.25 Customer gave $5. Change $_____	**f.** A postcard: $0.35 Customer gave $2. Change $_____

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Chapter 10: Exploring Multiplication
Introduction

The last chapter of *Math Mammoth Grade 2-B* covers the concept of multiplication, its connection with repeated addition, and some easy multiplication practice.

The lessons here are self-explanatory. The child first learns the meaning of multiplication as "many times the same size group". Then we practise writing multiplication as repeated addition and vice versa. Number-line jumps are another way to illustrate multiplication.

The actual study and memorisation of the multiplication tables is in the third grade. However, you can certainly help your child to notice the patterns in the easy tables of 2, 5, and 10, and encourage their memorisation.

If the time allows and the student is receptive, you can study multiplication tables even further at this time.

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr2ch10

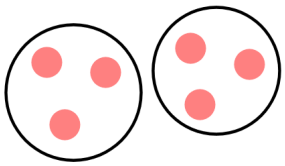
Scan me

Many Times the Same Group

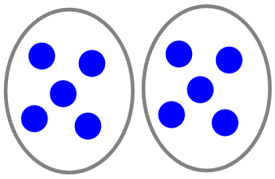
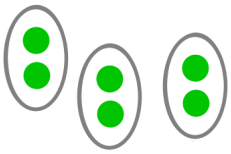
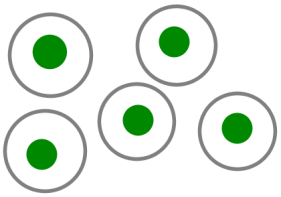
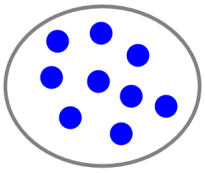
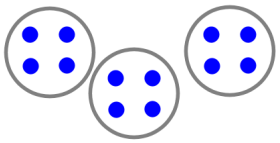
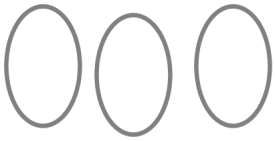
1. Write.

a. 2 times the word "CAT"	**b.** 3 times the word "ME"	**c.** 5 times the word "YOU"
d. 0 times the word "FROG"	**e.** 4 times the word "SCHOOL"	**f.** 1 time the word "HERE"

2. Draw groups of balls.

 **a.** 2 times a group of 3 balls	**b.** 3 times a group of 5 balls	**c.** 1 time a group of 7 balls
d. 4 times a group of 1 balls	**e.** 0 times a group of 2 balls	**f.** 3 times a group of 3 balls
g. 0 times a group of 8 balls	**h.** 4 times a group of 0 balls	**i.** 5 times a group of 2 balls

3. Fill in the missing parts.

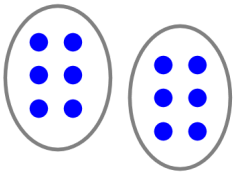
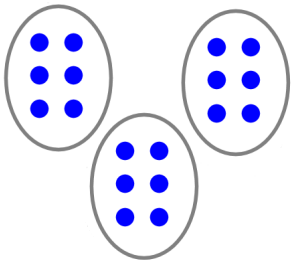
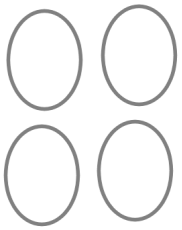
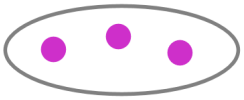
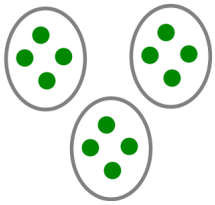
 **a.** 2 times 5	 **b.** _____ times _____	 **c.** _____ times _____
 **d.** _____ times _____	 **e.** _____ times _____	 **f.** _____ times _____

5×3 This means "5 times a group of 3." It is called **multiplication**.	2×7 This means "2 times a group of 7." You *multiply* 2 times 7.

4. Now it's your turn to draw! Notice also the symbol × which is read "times."

a. 2 times 4 2×4	**b.** 3 times 6 3×6	**c.** 1 times 7 1×7
d. 6 times 1 6×1	**e.** 4 times 0 4×0	**f.** 2 times 2 2×2

5. Write the multiplication sentence. Write the total after the " = " sign.

a.  $2 \times 6 = 12$	**b.**  _____ × _____ = _____	**c.**  _____ × _____ = _____
d.  _____ × _____ = _____	**e.**  _____ × _____ = _____	**f.**  _____ × _____ = _____

6. Draw the groups. Write the total.

a. $8 \times 1 =$ _____	**b.** $1 \times 10 =$ _____	**c.** $2 \times 2 =$ _____
d. $5 \times 2 =$ _____	**e.** $2 \times 8 =$ _____	**f.** $3 \times 3 =$ _____