

math

# MAMMOTH

## Grade 2-B Worktext South African Version

**T**hree-digit numbers

**M**easuring

**R**egrouping in  
addition and  
subtraction

**M**oney

**I**ntroduction to multiplication



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## Foreword

**Math Mammoth Grade 2-A and Grade 2-B** worktexts comprise a complete maths curriculum for the second grade mathematics studies. This South African version has been **customised to South Africa** in the following manners:

- The names used are South African names (instead of Jack and Jill, there are Ansie and Mampho).
- The currency used in word problems is rand. The money chapter teaches both rand and cents.
- The material is “all metric”. In other words, the US customary measuring units are not used.
- Spelling is British English instead of American English.
- Paper size is A4.
- Geographic locations used emphasise South African locations (such as Pretoria, Johannesburg).

Please note that the curriculum is not following the South African official syllabus for 2nd grade maths. Instead, it simply is a copy of the US version of Math Mammoth Grade 2, aligned to the US Common Core Standards. This decision was made because of the great amount of work that would be involved in writing new lessons and reorganising old ones to match all the standards in the South African syllabus.

For the most part, Math Mammoth is exceeding South African standards. Some standards are not covered (e.g. “Sorts physical objects according to one attribute chosen by the teacher,” “Positions self within the classroom or three-dimensional objects in relation to each other,” “Recognises and describes different calendars used in different cultures,” “Describes and illustrates various ways of writing numbers in different cultures (including local) throughout history,” “Describes and illustrates ways of representing time in different cultures throughout history” and some others.

The four main areas of study for second grade are:

1. Understanding of the base-ten system within 1 000. This includes place value with three-digit numbers, skip-counting in fives, tens, and multiples of hundreds, tens, and ones (within 1 000). (chapters 6 and 8);
2. Develop fluency with addition and subtraction within 100, including solving word problems, regrouping in addition, and regrouping in subtraction (chapters 1, 3, 4, and 8);
3. Using metric units of measure (chapter 7);
4. Describing and analysing shapes (chapter 5).

Additional topics we study are time (chapter 2), money (chapter 9), introduction to multiplication (chapter 10), and bar graphs and picture graphs (in various chapters).

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.

When you use these two books as your only or main mathematics curriculum, they 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 geometry, clock, and money sections in a different order. This might even be advisable if your child is “stuck” on some concept, or is getting bored. Sometimes the brain “mulls it over” in the background, and the concept he/she was stuck on can become clear after a break. For the chapter on measuring, the child should be familiar with three-digit numbers.

Math Mammoth aims to concentrate on a few major topics at a time, and study them in depth. This is totally opposite to the continually spiralling step-by-step curricula, in which each lesson typically is about a different topic from the previous or next lesson, and includes a lot of revision problems from past topics.

This does not mean that your child would not need occasional revision. However, when each major topic is presented in its own chapter, this gives you more freedom to plan the course of study *and* choose the time for revision yourself. In fact, I totally encourage you to plan your mathematics school year as a set of certain topics, instead of a certain book or certain pages from a book.

For revision, the download version includes an html page called *Make\_extra\_worksheets\_grade2.htm* that you can use to make additional worksheets for computation or for number charts. You can also reprint some previously studied pages. Also, chapter 3, which practises addition and subtraction facts within 18, contains a lot of pages with problems, so you can choose to “save” some of them for later revision.

*I wish you success in your maths teaching!*

*Maria Miller, the author*

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# Chapter 6: Three-Digit Numbers

## Introduction

The sixth chapter of *Math Mammoth Grade 2* 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 in Tens*, and also in 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  $260 + \underline{\quad} = 300$ ). 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

	page	span
Three-Digit Numbers .....	9	4 pages
Hundreds on the Number Line .....	13	2 pages
Forming Numbers—and Breaking Them Apart .....	15	2 pages
Skip-Counting in Tens .....	17	3 pages
More Skip-Counting .....	20	2 pages
Which Number Is Greater? .....	22	3 pages
Comparing Numbers and Some Revision .....	25	3 pages
Add and Subtract Whole Hundreds .....	28	2 pages
Practice with Whole Hundreds .....	30	3 pages
Completing the Next Hundred .....	33	3 pages
Adding Whole Tens .....	36	3 pages
Subtracting Whole Tens .....	39	3 pages
Patterns and Problems .....	42	3 pages
Bar Graphs and Pictographs .....	45	4 pages
Mixed Revision, Chapters 1 - 6 .....	49	2 pages
Revision, Chapter 6 .....	51	3 pages

# Helpful Resources on the Internet

Use these free online resources to supplement the “bookwork” as you see fit.

**Disclaimer:** These links were valid at the time of writing this book, and to the best of our knowledge we believe these websites to have what is described. However, we cannot guarantee that the links have not changed. Parental supervision is recommended.

## Base Blocks from the National Library of Virtual Manipulatives

Place enough hundred-flats, ten-sticks, and one-blocks into the work area to show given numbers. Choose “Columns = 3” to restrict the program to three-digit numbers.

[http://nlvm.usu.edu/en/nav/frames\\_asid\\_152\\_g\\_1\\_t\\_1.html?from=category\\_g\\_1\\_t\\_1.html](http://nlvm.usu.edu/en/nav/frames_asid_152_g_1_t_1.html?from=category_g_1_t_1.html)

## Place Value to Thousands

Multiple choice questions; help the duck swing his golf club.

<http://www.toonuniversity.com/flash.asp?err=496&engine=5>

## Cookie Dough

Either spell the number in words or write the digits.

<http://www.funbrain.com/numwords/index.html>

## Inequalities

Arrange the digits to make two numbers so that the comparison is true. Use six digits for two 3-digit numbers.

<http://www.primarygames.co.uk/PG5/Inequal/sidequal.html>

## Naming Numbers

These pages teach number naming skills covered in K8 maths courses. Each page has an explanation, interactive practice and challenge games about naming numbers.

<http://www.aaamath.com/B/nam.htm>

## Mostly Postie

Drag the parcel onto the scales, then enter the value shown to deliver your letter or parcel. Practises counting in 10s and 100s

<http://www.ictgames.com/mostlyPostie.html>

## Helipad Hops

Read the “number” of the SOS message, add/subtract to make it the nearest whole ten, and click on the whole ten helipad where the helicopter should land.

<http://www.ictgames.com/helipad%20hops7.html>

## Place Value at AAAMath.com

Read, practise, and play with 3-digit numbers.

<http://www.aaaknow.com/plc21ax2.htm>

## Line Dry Game

Fill in a missing number on the clothes line based on different skip counting patterns.

[www.fuelthebrain.com/Game/play.php?ID=15](http://www.fuelthebrain.com/Game/play.php?ID=15)

## Thatquiz.org Quiz for Graphs

A 10-question quiz involving bar graphs and pictographs.

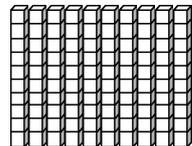
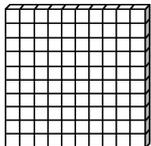
<http://www.thatquiz.org/tq-5/?-j40v0h-11-p0>

Sample worksheet from  
[www.mathmammoth.com](http://www.mathmammoth.com)

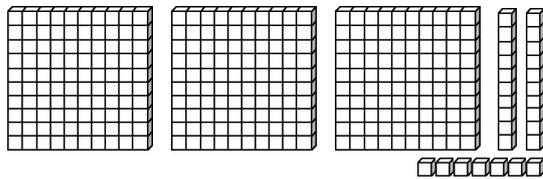
# Three-Digit Numbers

Ten ones make a ten: Ten ten-pillars make ONE HUNDRED:

 =   
 10 ones = 10

 =   
 10 tens = 100

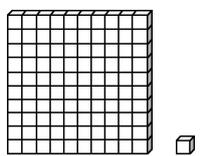
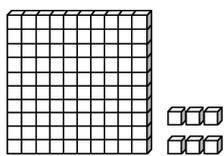
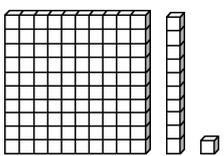
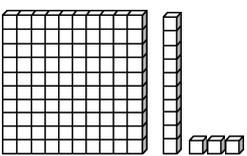
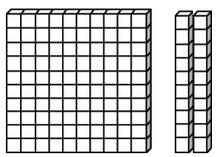
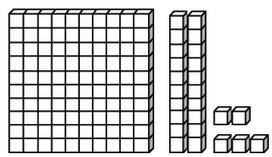
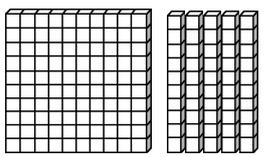
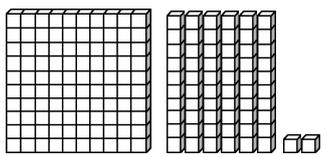
Write hundreds, tens, and ones in their own columns:

 = 
 

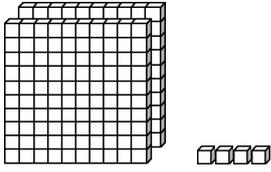
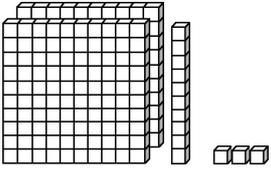
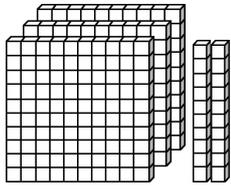
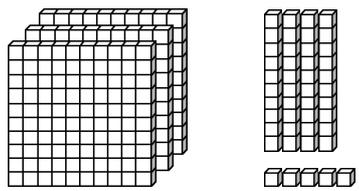
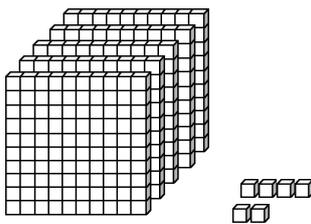
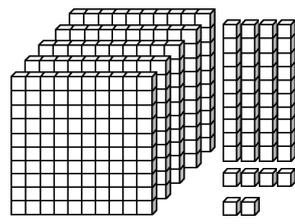
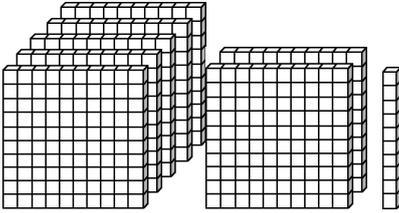
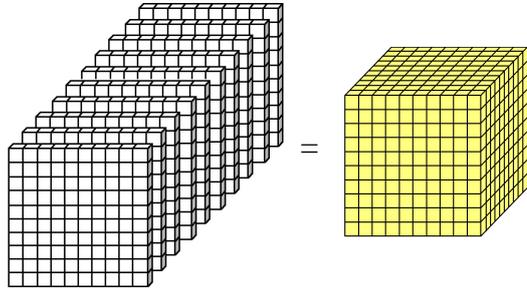
hund- reds	tens	ones
3	2	7

three hundred and twenty-seven

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

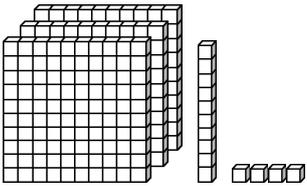
<p><b>a.</b> one hundred and one</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;">1</td> <td style="width: 33%;">0</td> <td style="width: 33%;">1</td> </tr> </table>	1	0	1	<p><b>b.</b> one hundred and six</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> </tr> </table>				<p><b>c.</b> one hundred and eleven</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;">1</td> <td style="width: 33%;">1</td> <td style="width: 33%;">1</td> </tr> </table>	1	1	1	<p><b>d.</b> one hundred and thirteen</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> </tr> </table>			
1	0	1													
1	1	1													
<p><b>e.</b> one hundred and twenty</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> </tr> </table>				<p><b>f.</b> one hundred and twenty-five</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> </tr> </table>				<p><b>g.</b> one hundred and fifty</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> </tr> </table>				<p><b>h.</b> one hundred and sixty-two</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%; height: 30px;"></td> </tr> </table>			

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

<p>a. <u>two hundred</u></p> <p><u>and four</u></p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%;">2</td> <td style="width: 33%;">0</td> <td style="width: 33%;">4</td> </tr> </table>	2	0	4	<p>b. <u>two hundred</u></p> <p><u>and thirteen</u></p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>				<p>c. _____</p> <p>_____</p>  <p>hundreds   tens   ones</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>			
2	0	4									
<p>d. _____</p> <p>_____</p>  <p style="text-align: center;">H   T   O</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>				<p>e. _____</p> <p>_____</p>  <p style="text-align: center;">H   T   O</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>				<p>f. _____</p> <p>_____</p>  <p style="text-align: center;">H   T   O</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>			
<p>g. _____</p>  <p style="text-align: center;">H   T   O</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 33%; height: 30px;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>				<p>h. <u>Ten hundreds = One thousand</u></p>  <p style="text-align: center;">Th   H   T   O</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">1</td> <td style="width: 25%;">0</td> <td style="width: 25%;">0</td> <td style="width: 25%;">0</td> </tr> </table>	1	0	0	0			
1	0	0	0								

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

**a.**

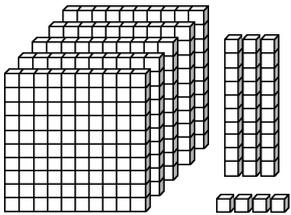


\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

H      T      O

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**b.**

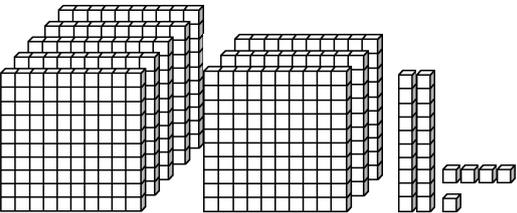


\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

H      T      O

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**c.**

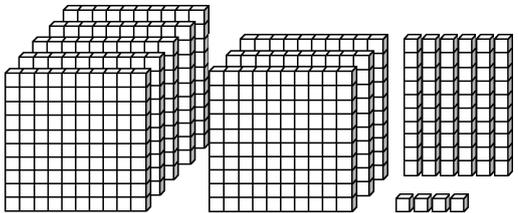


\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

H      T      O

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**d.**



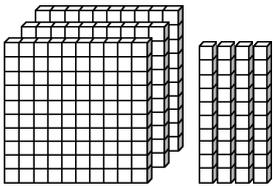
\_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

H      T      O

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Notice: There are NO ones.  
Write a zero for ones in the sum.

**e.**



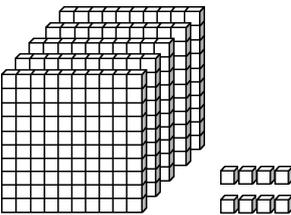
\_\_\_\_\_ + \_\_\_\_\_ + 0

H      T      O

--	--	--

Notice: There are NO tens.  
Write a zero for tens in the sum.

**f.**



\_\_\_\_\_ + 0 + \_\_\_\_\_

H      T      O

--	--	--

4. Match the numbers, number names and the sums to the correct pictures.

118	505	818	550	508	805
eight hundred and five	five hundred and fifty	one hundred and eighteen			
$500 + 8$	$500 + 5$	$800 + 10 + 8$			

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

<p>a. </p> <p style="text-align: center;"><u>235</u></p>	<p>b. </p> <p style="text-align: center;">_____</p>
<p>c. </p> <p style="text-align: center;">_____</p>	<p>d. </p> <p style="text-align: center;">_____</p>

How many tens are in a thousand?

Puzzle Corner

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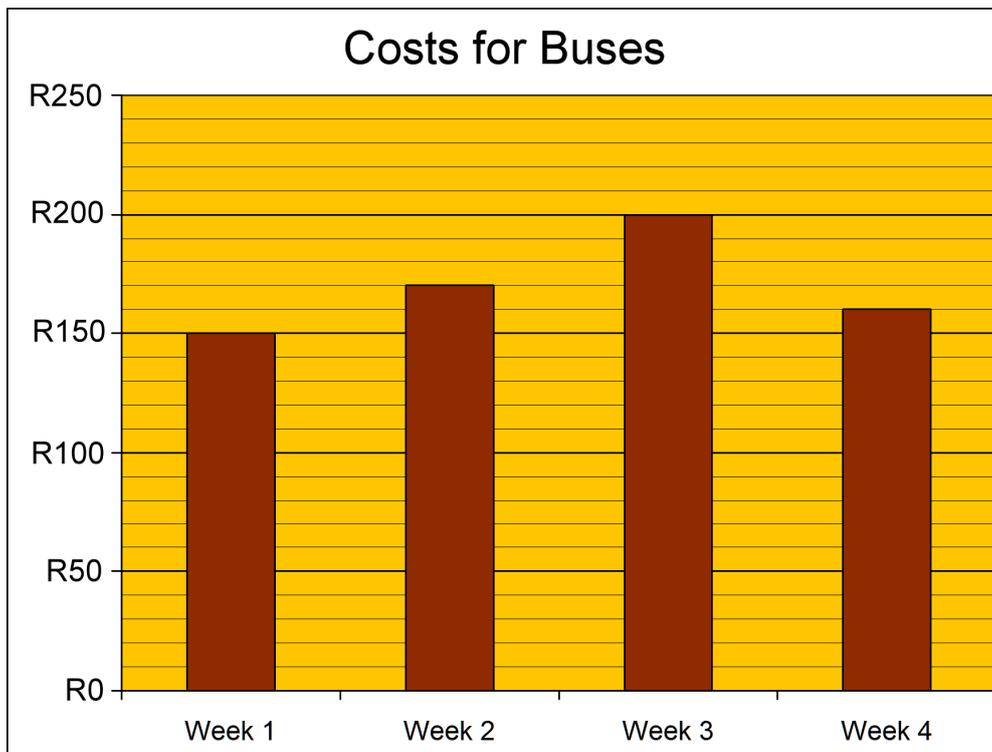
## Patterns and Problems

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 Bonga got 30 more points (Jali got none). Add those to their point counts and write the new point counts in the grid. Who won the game?

Jali	Daniel	Bonga
540	270	330

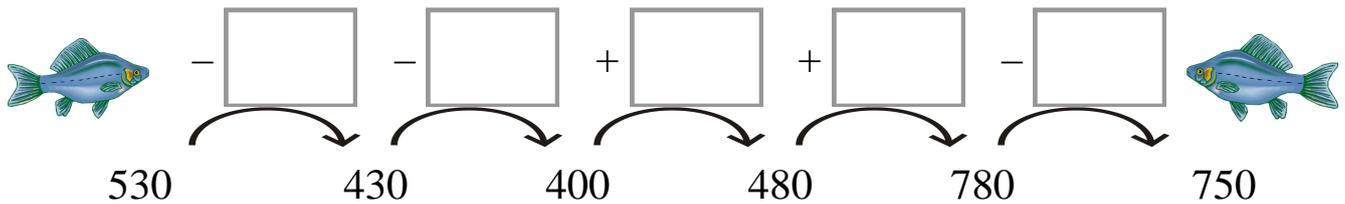
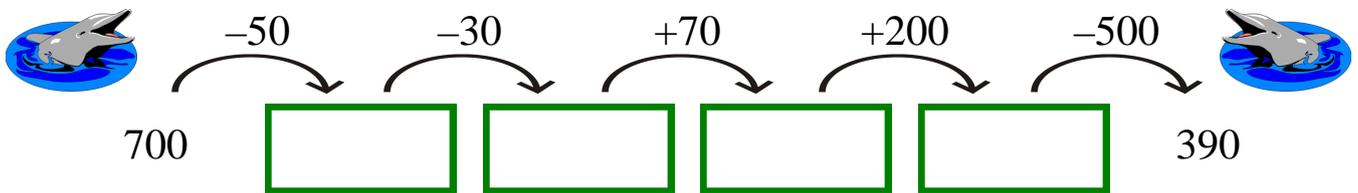
2. The bar graph shows how much money the Smit family spent for riding buses in four different weeks.
- Mark above each bar how much they spent for buses in rand.
  - How much more did they pay for week 3 than for week 4?
  - How much more did they pay for week 2 than for week 1?



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

520	540	560		
620				
820				
				1 000

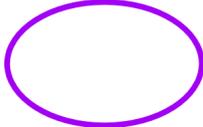
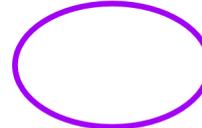
4. Fill in.

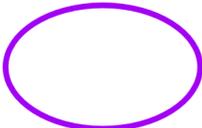


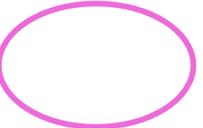
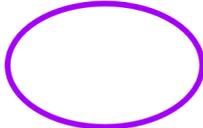
5. Continue the patterns!

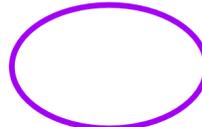
a.	b.
590 - 60 = _____	770 + 10 = _____
590 - 70 = _____	770 + 20 = _____
590 - 80 = _____	770 + 30 = _____
590 - _____ = _____	770 + _____ = _____
590 - _____ = _____	770 + _____ = _____
590 - _____ = _____	770 + _____ = _____

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	

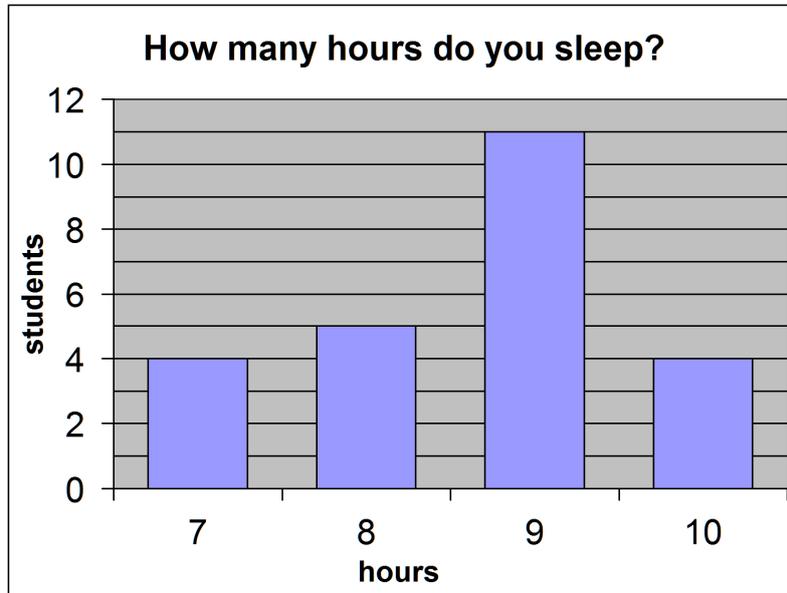
What was subtracted is missing:	i. 1 000 -  = 700	j. 740 -  = 40
	k. 667 -  = 607	l. 999 -  = 299

Find what number goes into the oval!		<b>Puzzle Corner</b>
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* 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 scale. 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 scale), 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 familiarising 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

	page	span
Measuring to the Nearest Centimetre .....	56	3 pages
Some More Measuring .....	59	3 pages
Metres and Kilometres .....	62	2 pages
Weight in Kilograms .....	64	2 pages
Mixed Revision, Chapters 1 - 7 .....	66	3 pages
Revision, Chapter 7 .....	69	1 page

# Helpful Resources on the Internet

Use these free online resources to supplement the “bookwork” as you see fit.

**Disclaimer:** *These links were valid at the time of writing this book, and to the best of our knowledge we believe these websites to have what is described. However, we cannot guarantee that the links have not changed. Parental supervision is recommended.*

## Measuring Scales

An interactive scale. You can put weights on it, change the maximum and the interval, and thus show the student how to read the scale.

[http://www.rsc-northwest.ac.uk/acl/eMagArchive/RSCeMag0910/FunctionalSkillsResources/measuring\\_scales.html](http://www.rsc-northwest.ac.uk/acl/eMagArchive/RSCeMag0910/FunctionalSkillsResources/measuring_scales.html)

## Scales Reader

Practise reading the scales in grams and/or kilograms.

<http://www.ictgames.com/weight.html>

## Measure It!

Click on the ruler to measure a red bar.

<http://onlineintervention.funbrain.com/measure/index.html>

## Reading Scales

Helps teachers to illustrate a variety of measuring devices and how to read them.

<http://www.teacherled.com/2009/02/18/reading-scales-2/>

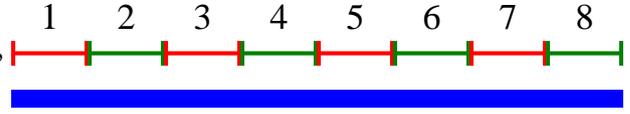
# Measuring to the Nearest Centimetre

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

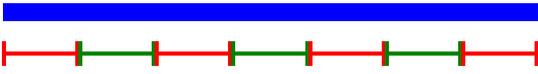
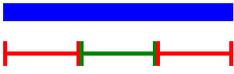
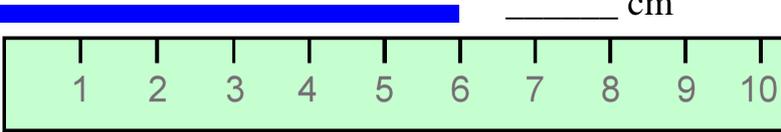
This line is 1 centimetre long: 

A centimetre is written in short form as "cm."

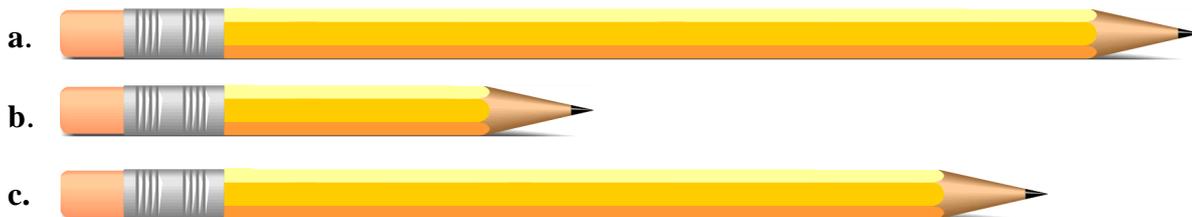
The blue line on the right is 8 cm long. →



1. How many centimetres long are these lines?

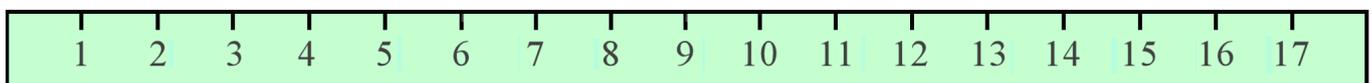
<p>a.  _____ cm</p>	<p>b.  _____ cm</p>
<p>c.  _____ cm</p>	
<p>d.  _____ cm</p>	

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.



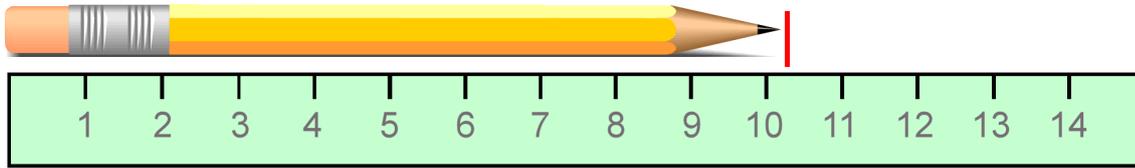
a. How much longer is pencil a. than pencil b.? \_\_\_\_\_ cm

b. How much longer is pencil c. than pencil b.? \_\_\_\_\_ cm

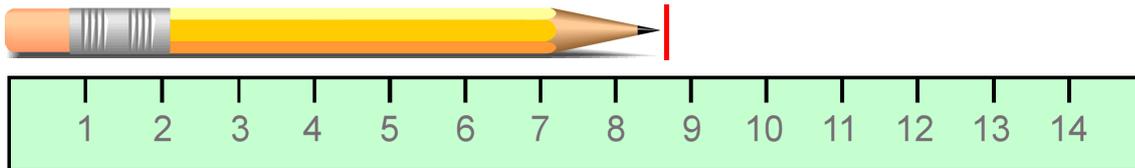


Most things are NOT exactly a certain number of whole centimetres.  
You can measure them to the nearest centimetre.

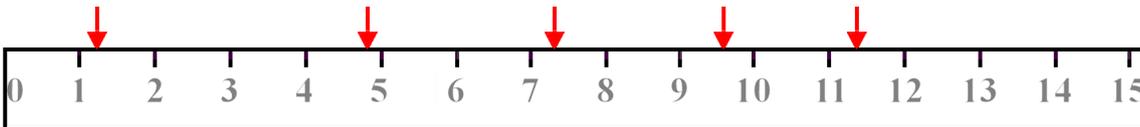
The pencil below is a little over 10 cm long. It is *about 10 cm* long.



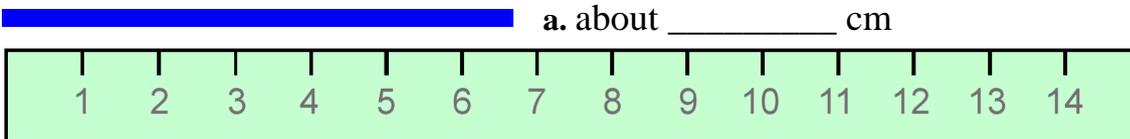
This pencil is about 9 cm long. The end of the pencil is closer to 9 cm than to 8 cm.



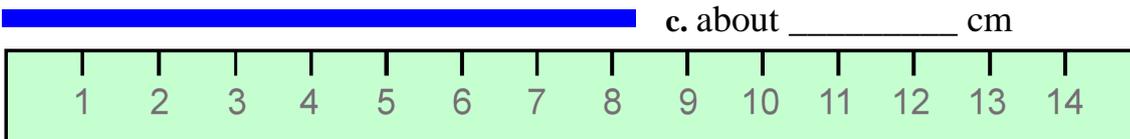
3. Circle the number that is nearest to each arrow.



4. Measure the lines to the nearest centimetre.



b. about \_\_\_\_\_ cm



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.

	<u>My guess:</u>	<u>Measurement:</u>
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

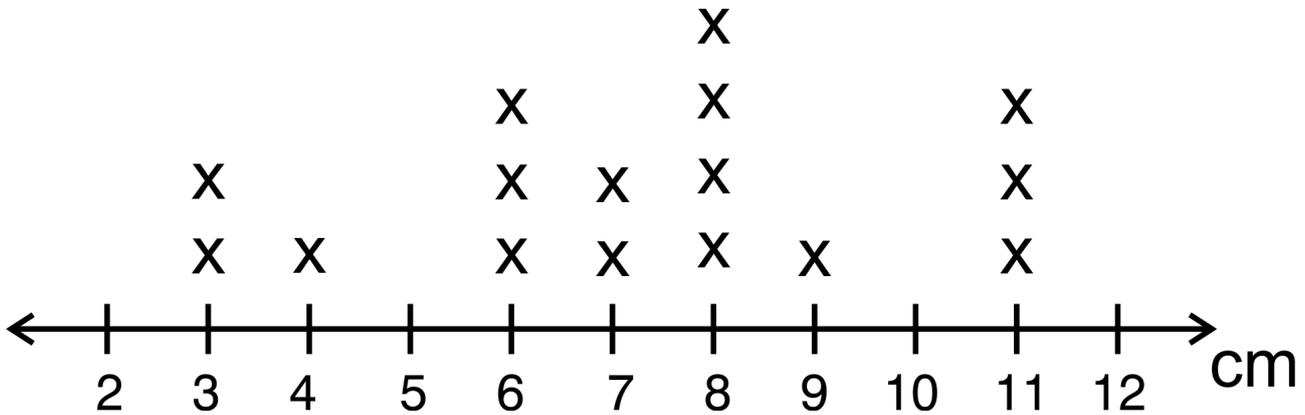
c. 12 cm long

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 your cm-number, such as *about 8 cm*.

Item	GUESS	MEASUREMENT
	cm	cm

## Some More Measuring

1. Jeanny measured the lengths 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.



- How many of Jeanny's pencils were 3 cm long?
- How many were 8 cm long?
- How many pencils were 9 cm or longer?
- How many pencils were 5 cm or shorter?
- How long is Jeanny's longest pencil?                      Her shortest pencil?

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

2. Join these dots with lines to form a four-sided shape. What is the name for a four-sided shape?

\_\_\_\_\_

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* 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 recognising whether a problem requires addition or subtraction; thus 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

	page	span
Adding 3-Digit Numbers in Columns .....	73	2 pages
Regrouping 10 Tens as a Hundred.....	75	4 pages
Add in Columns: Regrouping Twice .....	79	4 pages
Regrouping in Subtraction, Part 1 .....	83	3 pages
Regrouping in Subtraction, Part 2 .....	86	3 pages
Regrouping in Subtraction, Part 3 .....	89	3 pages
Word Problems .....	93	3 pages
Mental Subtraction, Part 1.....	96	2 pages
Mental Subtraction, Part 2 .....	98	3 pages
Regrouping One Ten as Ten Ones with 3-Digit Numbers .....	101	3 pages
Regrouping One Hundred as 10 Tens .....	104	4 pages
Graphs and Problems .....	108	2 pages
Euclid's Game .....	110	3 pages
Mixed Revision, Chapters 1 - 8 .....	113	2 pages
Revision, Chapter 8 .....	115	4 pages

## Helpful Resources on the Internet

Use these free online resources to supplement the “bookwork” as you see fit.

**Disclaimer:** These links were valid at the time of writing this book, and to the best of our knowledge we believe these websites to have what is described. However, we cannot guarantee that the links have not changed. Parental supervision is recommended.

### Base Blocks Addition

A virtual manipulative that shows regrouping in addition. You can either solve addition problems that are provided, or create your own. “Lasso” with a mouse ten units, ten tens, or ten hundreds to regroup them. Choose “Columns = 3” to restrict the work to three-digit numbers.

[http://nlvm.usu.edu/en/nav/frames\\_asid\\_154\\_g\\_1\\_t\\_1.html?from=category\\_g\\_1\\_t\\_1.html](http://nlvm.usu.edu/en/nav/frames_asid_154_g_1_t_1.html?from=category_g_1_t_1.html)

### Base Blocks Subtraction

A virtual manipulative that helps teach borrowing in subtraction. Choose "Create Problem", then click on the red and blue blocks to create a problem. The number to be subtracted (the subtrahend) is illustrated by the RED blocks whereas the minuend is illustrated by the BLUE blocks. Click BEGIN problem to start solving. Drag a red block on top of a blue to “subtract” —they cancel each other. Drag bigger place values to the column on their right to “break them up”—in other words regroup or borrow. Choose “Columns = 3” to restrict the work to three-digit numbers.

[http://nlvm.usu.edu/en/nav/frames\\_asid\\_155\\_g\\_1\\_t\\_1.html?from=category\\_g\\_1\\_t\\_1.html](http://nlvm.usu.edu/en/nav/frames_asid_155_g_1_t_1.html?from=category_g_1_t_1.html)

### Regrouping in vertical addition

Shows hundreds, tens, and ones as pictures, and asks you to regroup if needed.

<http://www.harcourtschool.com/justforkids/math/elab/samplepages/g3a02.htm>

### Callum's Addition Pyramid

Add the pairs of numbers to get a number on the next level and finally the top number. Choose the "hard" level to add two and three-digit numbers.

<http://www.amblesideprimary.com/ambleweb/mentalmaths/pyramid.html>

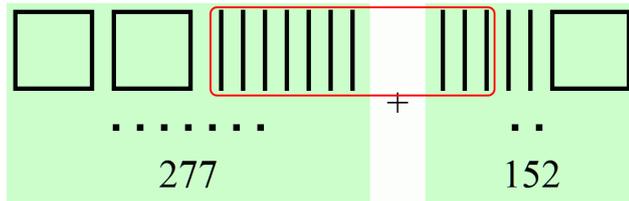
### Thatquiz.org Quiz for Graphs

A 10-question quiz involving bar graphs and pictographs.

<http://www.thatquiz.org/tq-5/?-j40v0h-l1-p0>

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# Regrouping 10 Tens as a Hundred



	hundreds	tens	ones
	1		
	2	7	7
+	1	5	2
	4	2	9

Ten TENS are grouped to make a new hundred!

In the TENS, there are 7 tens and 5 tens to add (277 has 7 tens, and 152 has 5 tens).

That is 12 tens. And, **10 tens makes a hundred!** So, we make a new hundred, and regroup that with the other hundreds, writing the new hundred with a little “1” in the hundreds column.

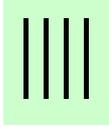
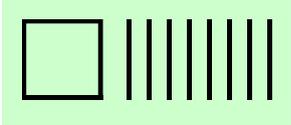
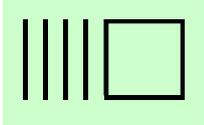
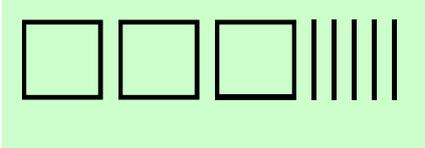
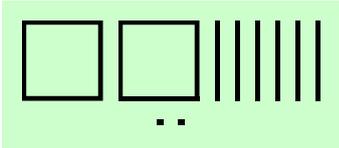
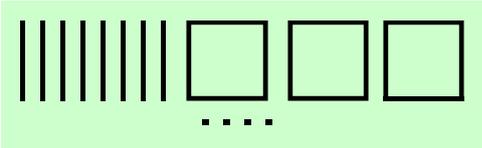
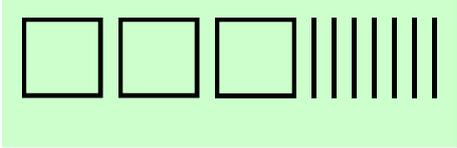
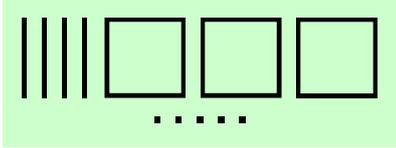
(We have 2 tens left over from that, and they stay in the tens column.)

1. Circle 10 ten-sticks to make a new hundred. Write the addition.

Alternatively, you can do these exercises using base-ten blocks or similar manipulatives.

<p>a. </p> <p>_____ + _____ = _____</p>	<p>b. </p> <p>_____ + _____ = _____</p>
<p>c. </p> <p>_____ + _____ = _____</p>	<p>d. </p> <p>_____ + _____ = _____</p>
<p>e. </p> <p>_____ + _____ = _____</p>	<p>f. </p> <p>_____ + _____ = _____</p>

2. Write the numbers in the grid, and add. Regroup. You can circle 10 ten-sticks in the picture to help you. Alternatively, you can do these exercises using base-ten blocks or similar manipulatives.

<b>a.</b>	 + 	+	<table border="1" style="width: 100px; height: 100px; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td colspan="3" style="border-top: 1px solid black;"> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>												
	<p>90 + 40</p>														
<b>b.</b>	 + 	+	<table border="1" style="width: 100px; height: 100px; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td colspan="3" style="border-top: 1px solid black;"> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>												
	<p>180 + 140</p>														
<b>c.</b>	 + 	+	<table border="1" style="width: 100px; height: 100px; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td colspan="3" style="border-top: 1px solid black;"> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>												
	<p>350 + 63</p>														
<b>d.</b>	 + 	+	<table border="1" style="width: 100px; height: 100px; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td colspan="3" style="border-top: 1px solid black;"> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>												
	<p>262 + 384</p>														
<b>e.</b>	 + 	+	<table border="1" style="width: 100px; height: 100px; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td colspan="3" style="border-top: 1px solid black;"> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>												
	<p>370 + 345</p>														

3. Add mentally. Compare the problems. Notice you get a NEW hundred from the tens!

a.	b.	c.
$70 + 40 = \underline{\hspace{2cm}}$	$50 + 60 = \underline{\hspace{2cm}}$	$90 + 50 = \underline{\hspace{2cm}}$
$170 + 40 = \underline{\hspace{2cm}}$	$150 + 60 = \underline{\hspace{2cm}}$	$290 + 50 = \underline{\hspace{2cm}}$
$270 + 40 = \underline{\hspace{2cm}}$	$250 + 60 = \underline{\hspace{2cm}}$	$490 + 50 = \underline{\hspace{2cm}}$

4. Add. You need to regroup 10 tens as a new hundred.

a.	b.	c.	d.	e.
$\begin{array}{r} 80 \\ + 30 \\ \hline \end{array}$	$\begin{array}{r} 220 \\ + 90 \\ \hline \end{array}$	$\begin{array}{r} 64 \\ + 53 \\ \hline \end{array}$	$\begin{array}{r} 370 \\ + 74 \\ \hline \end{array}$	$\begin{array}{r} 533 \\ + 282 \\ \hline \end{array}$
f.	g.	h.	i.	j.
$\begin{array}{r} 67 \\ + 72 \\ \hline \end{array}$	$\begin{array}{r} 224 \\ + 193 \\ \hline \end{array}$	$\begin{array}{r} 464 \\ + 392 \\ \hline \end{array}$	$\begin{array}{r} 355 \\ + 374 \\ \hline \end{array}$	$\begin{array}{r} 787 \\ + 82 \\ \hline \end{array}$

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

a.	b.	c.
$70 + 40 = \underline{\hspace{2cm}}$	$80 + 60 = \underline{\hspace{2cm}}$	$290 + 50 = \underline{\hspace{2cm}}$
$130 + 40 = \underline{\hspace{2cm}}$	$270 + 60 = \underline{\hspace{2cm}}$	$220 + 50 = \underline{\hspace{2cm}}$
$160 + 50 = \underline{\hspace{2cm}}$	$130 + 50 = \underline{\hspace{2cm}}$	$190 + 20 = \underline{\hspace{2cm}}$

6. What number was added? Think of regrouping!

a.	b.	c.	d.	e.
$\begin{array}{r} 167 \\ + 1\color{yellow}\square2 \\ \hline 359 \end{array}$	$\begin{array}{r} 240 \\ + 1\color{yellow}\square2 \\ \hline 422 \end{array}$	$\begin{array}{r} 391 \\ + 4\color{yellow}\square2 \\ \hline 813 \end{array}$	$\begin{array}{r} 653 \\ + 1\color{yellow}\square3 \\ \hline 846 \end{array}$	$\begin{array}{r} 375 \\ + 1\color{yellow}\square4 \\ \hline 559 \end{array}$

7. Add and match the answers with the letters in the key. Then use the key to reveal the message.

**W**

$$\begin{array}{r} 233 \\ + 758 \\ \hline \end{array}$$

**L**

$$\begin{array}{r} 553 \\ + 346 \\ \hline \end{array}$$

**P**

$$\begin{array}{r} 597 \\ + 330 \\ \hline \end{array}$$

**T**

$$\begin{array}{r} 191 \\ + 751 \\ \hline \end{array}$$

**S**

$$\begin{array}{r} 282 \\ + 647 \\ \hline \end{array}$$

**E**

$$\begin{array}{r} 111 \\ + 729 \\ \hline \end{array}$$

**O**

$$\begin{array}{r} 772 \\ + 132 \\ \hline \end{array}$$

**A**

$$\begin{array}{r} 474 \\ + 343 \\ \hline \end{array}$$

**E**

$$\begin{array}{r} 217 \\ + 639 \\ \hline \end{array}$$

**I**

$$\begin{array}{r} 470 \\ + 399 \\ \hline \end{array}$$

**G**

$$\begin{array}{r} 216 \\ 116 \\ + 529 \\ \hline \end{array}$$

**N**

$$\begin{array}{r} 231 \\ 240 \\ + 432 \\ \hline \end{array}$$

**R**

$$\begin{array}{r} 85 \\ 205 \\ + 643 \\ \hline \end{array}$$

**F**

$$\begin{array}{r} 136 \\ 134 \\ + 589 \\ \hline \end{array}$$

**H**

$$\begin{array}{r} 105 \\ 301 \\ + 459 \\ \hline \end{array}$$

Key:

817	840	856	859	861	865	869	899	903	904	927	933	929	942	991

When the  and the  ran a race, who won?

942	865	840

856	899	856	927	865	817	903	942

, because

942	865	856

861	869	933	817	859	859	840

991	817	929

869	903

942	865	856

933	840	859	933	869	861	856	933	817	942	904	933

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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.

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

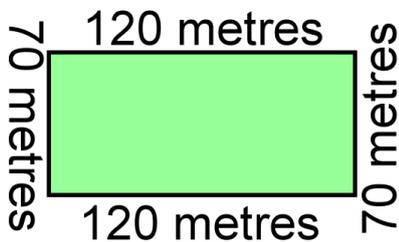
2. Susan bought three mobile phones.  
Each mobile phone cost R154.  
How much was the total cost?

+		

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

a.	b.	c.
$80 + 40 = \underline{\hspace{2cm}}$	$90 + 90 = \underline{\hspace{2cm}}$	$690 + 50 = \underline{\hspace{2cm}}$
$780 + 40 = \underline{\hspace{2cm}}$	$240 + 50 = \underline{\hspace{2cm}}$	$470 + 80 = \underline{\hspace{2cm}}$

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*.

<p>a.</p> $\begin{array}{r} 88 \\ - 54 \\ \hline \end{array}$ $\begin{array}{r} + 54 \\ \hline \end{array}$	<p>b.</p> $\begin{array}{r} 63 \\ - 48 \\ \hline \end{array}$ $\begin{array}{r} + \\ \hline \end{array}$
<p>c.</p> $\begin{array}{r} 84 \\ - 49 \\ \hline \end{array}$ $\begin{array}{r} + \\ \hline \end{array}$	<p>d.</p> $\begin{array}{r} 882 \\ - 159 \\ \hline \end{array}$ $\begin{array}{r} + \\ \hline \end{array}$
<p>e.</p> $\begin{array}{r} 556 \\ - 391 \\ \hline \end{array}$ $\begin{array}{r} + \\ \hline \end{array}$	<p>f.</p> $\begin{array}{r} 550 \\ - 246 \\ \hline \end{array}$ $\begin{array}{r} + \\ \hline \end{array}$

6. Subtract using mental maths methods.

<p>a. <math>15 - 7 = \underline{\quad}</math></p> <p><math>55 - 7 = \underline{\quad}</math></p>	<p>b. <math>13 - 5 = \underline{\quad}</math></p> <p><math>93 - 5 = \underline{\quad}</math></p>	<p>c. <math>82 - 77 = \underline{\quad}</math></p> <p><math>45 - 41 = \underline{\quad}</math></p>
<p>d. <math>80 - 71 = \underline{\quad}</math></p> <p><math>100 - 95 = \underline{\quad}</math></p>	<p>e. <math>56 - 40 = \underline{\quad}</math></p> <p><math>56 - 43 = \underline{\quad}</math></p>	<p>f. <math>78 - 35 = \underline{\quad}</math></p> <p><math>33 - 4 = \underline{\quad}</math></p>

7. Find what numbers are missing.

a.

$$\begin{array}{r} 2 \blacksquare 4 \\ + 477 \\ \hline 731 \end{array}$$

b.

$$\begin{array}{r} 5 \blacksquare 9 \\ + \blacksquare 25 \\ \hline 914 \end{array}$$

c.

$$\begin{array}{r} 20 \blacksquare \\ + 6 \blacksquare 6 \\ \hline 892 \end{array}$$

d.

$$\begin{array}{r} 68 \blacksquare \\ + \blacksquare 19 \\ \hline 900 \end{array}$$

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?

<hr/>	

b. Nakedi has 23 stuffed toys that she likes, and 16 that she does not like.  
How many stuffed toys does Nakedi have?

<hr/>	

c. Nakedi gave the 16 toys she does not like to her sister Ansie. Now, Ansie has 33 toys.  
How many toys did Ansie have before?

<hr/>	

d. Lerato 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 Lerato have now?

<hr/>		

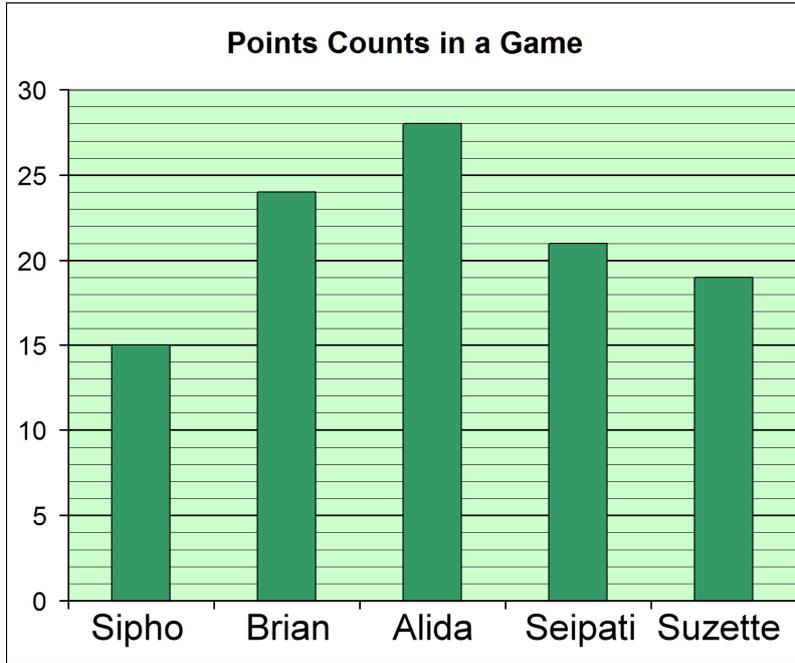
+

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

<hr/>	

<hr/>	

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



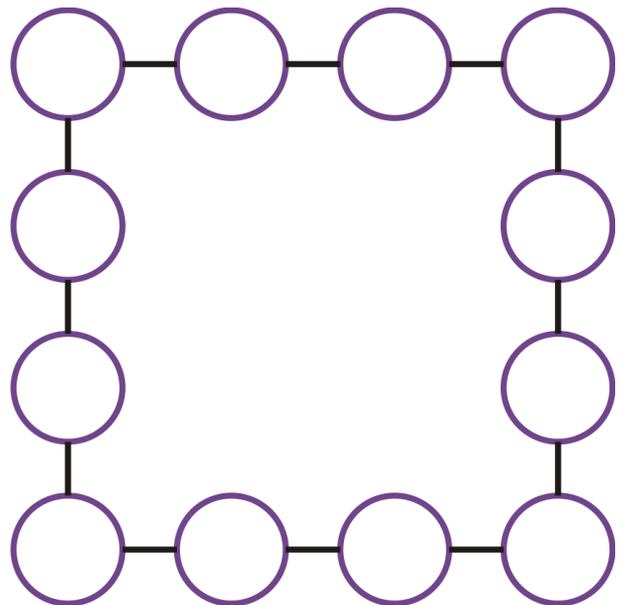
CHILD	POINTS
Siphon	15
Brian	
Alida	
Seipati	
Suzette	

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

c. How many more points did Seipati get than Siphon?

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.



**Puzzle Corner**

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# Chapter 9: Money

## Introduction

Chapter 9 of *Math Mammoth Grade 2* has to do with South African Money.

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

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

### The Lessons

	page	span
Counting Coins Revision .....	120	3 pages
Rand.....	123	5 pages
Change .....	128	3 pages
Counting Change .....	131	2 pages
Mixed Revision, Chapters 1 - 9 .....	133	3 pages
Revision, Chapter 9 .....	136	1 page

### Helpful Resources on the Internet

Use these free online resources to supplement the “bookwork” as you see fit.

***Disclaimer:*** *These links were valid at the time of writing this book, and to the best of our knowledge we believe these websites to have what is described. However, we cannot guarantee that the links have not changed. Parental supervision is recommended.*

#### Counting South African coins worksheets

Create free worksheets for counting all South African coins and some notes. You can choose the number of coins, the maximum total amount, and the number of problems.

<http://www.homeschoolmath.net/worksheets/south-african-money.php>

#### South African Mint

See specially minted collector coins, such as the 2010 Natura Coin series with black rhinoceros, the Krugerrand Series, the Protea Series with Nadine Gordimer, and others. You will also find information about coin making and the current circulation coins.

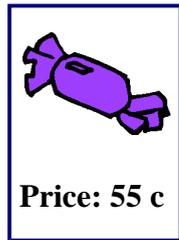
<http://www.samint.co.za>

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# Change

When you buy something in a shop, you often do not have the exact amount of money to pay for it. Instead, you give the shop assistant *more* money than what the item costs. The shop assistant then gives you some money back. This is called *your change*.

A piece of candy costs 55 cents. You don't have the coins to make exactly 55 cents, so you give the shop assistant 60 cents. That is 5 cents too much! The shop assistant then gives you back 5 cents, which is your change.



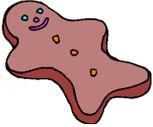
The shop assistant gives you back the *difference* between the price and what you paid.

In the problems below, work out the change you get back. Think of the DIFFERENCE between the price and what you pay; or, think how many cents you paid “too much.” That's your change.

You can set up a “play shop” to do these problems using real money, one person as the shop assistant, and one person as a customer.

1. Write how many cents you give, and how many cents you get back in change.

<p>a.</p> <p>Price: R2,10</p> <p>You have:</p> <p>R _____ c</p> <p>Your change:</p>	<p>b.</p> <p>Price: 30 c</p> <p>You have:</p> <p>_____ c _____ c</p> <p>Your change:</p>
<p>c.</p> <p>Price: R4,50</p> <p>You have:</p> <p>R _____ c</p> <p>Your change:</p>	<p>d.</p> <p>Price: 45 c</p> <p>You have:</p> <p>_____ c _____ c</p> <p>Your change:</p>

<p>e.  Price: R4,95</p> <p>You have:  Your change: R_____ c</p>	<p>f.  Price: 90 c</p> <p>You have:  Your change: _____ c</p>
<p>g.  Price: R1,85</p> <p>You have:  Your change: R_____ c</p>	<p>h.  Price: 70 c</p> <p>You have:  Your change: _____ c</p>

2. Circle the coins you use to pay. Write how many cents is your change.

<p>a. You bought a lollipop for R1,50.</p>	<p>You have: _____</p>  <p>Change: _____ c</p>
<p>b. You bought a bar of chocolate for R2,05.</p>	<p>You have: _____</p>  <p>Change: _____ c</p>
<p>c. You bought a pen for R2,90.</p>	<p>You have: _____</p>  <p>Change: _____ c</p>
<p>d. You bought a sharpener for R2,25.</p>	<p>You have: _____</p>  <p>Change: _____ c</p>
<p>e. You bought a banana for R1,75.</p>	<p>You have: _____</p>  <p>Change: _____ c</p>
<p>f. You bought a newspaper for R4,50.</p>	<p>You have: _____</p>  <p>Change: _____ c</p>

3. Practise some more! Work out the change.

<p><b>a.</b> An orange costs R1,90. You give R2.</p> <p>Change: _____ c</p>	<p><b>b.</b> A banana costs R1,75. You give R2.</p> <p>Change: _____ c</p>	<p><b>c.</b> A book costs R9,30. You give R10.</p> <p>Change: _____ c</p>
<p><b>d.</b> A toy costs R9,70. You give R10.</p> <p>Change: _____ c</p>	<p><b>e.</b> A drink costs R9,10. You give R10.</p> <p>Change: _____ c</p>	<p><b>f.</b> Flavoured water costs R7,20. You give R8.</p> <p>Change: _____ c</p>

4. Now you buy many items. First add their prices to work out the total.  
Then work out the change. Draw the coins that could be your change.

<p><b>a.</b> Sweets cost 50 c. You bought three of them. You gave R2,00.</p> <p><u>Total cost: R1,50</u></p> <p><u>Change: R0,50</u></p> 
<p><b>b.</b> A taffy costs R1 and a cupcake costs R3. You gave R5,00.</p> <p>Total cost: R_____</p> <p>Change: R_____</p>
<p><b>c.</b> A lollipop costs R1,50. You bought two of them. You gave R4,00.</p> <p>Total cost: R_____</p> <p>Change: R_____</p>
<p><b>d.</b> A pencil costs R2. You bought two of them. You gave R5,00.</p> <p>Total cost: R_____</p> <p>Change: R_____</p>
<p><b>e.</b> An eraser costs R3 and bubble gum costs R0,50. You gave R4,00.</p> <p>Total cost: R_____</p> <p>Change: R_____</p>

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# Chapter 10: Exploring Multiplication

## Introduction

The last chapter of *Math Mammoth Grade 2* 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

	page	span
Many Times the Same Group .....	139	3 pages
Multiplication and Addition .....	142	4 pages
Multiplying on a Number Line .....	146	3 pages
Multiplication Practice .....	149	2 pages
Mixed Revision, Chapters 1 - 10 .....	151	3 pages
Revision, Chapter 10 .....	154	2 pages

### Helpful Resources on the Internet

*Use these free online resources to supplement the “bookwork” as you see fit.*

**Disclaimer:** *These links were valid at the time of writing this book, and to the best of our knowledge we believe these websites to have what is described. However, we cannot guarantee that the links have not changed. Parental supervision is recommended.*

#### Math Dice Game for Addition and Multiplication

Instructions for three simple games with dice; one to learn the concept of multiplication, another to practise the times tables, and one more for addition facts.

<http://www.teachingwithtlc.blogspot.com/2007/09/math-dice-games-for-addition-and.html>

### **Explore the Multiplication Table**

This applet visualises multiplication as a rectangle.

<http://www.mathcats.com/explore/multiplicationtable.html>

### **Multiple Counting Practice**

Click on the numbers on the grid to skip count.

<http://www.hsappappserv.com/multiplecounting/multiplecounting/>

### **Multiplication Memory Game**

Click on corresponding pairs (problem-answer).

<http://www.dositey.com/addsub/memorymult.html>

### **Multiplication Mystery**

Drag the answer tiles to the right places in the grid as they are given, and a picture is revealed.

<http://www.harcourtschool.com/activity/mult/mult.html>

### **Multiplication.com Interactive Games**

A bunch of online games just for the times tables.

[http://www.multiplication.com/interactive\\_games.htm](http://www.multiplication.com/interactive_games.htm)

### **Skip Counting Game**

Click the answer on the number line. You have 2 minutes to gain as many points as you can.

<http://www.mathsisfun.com/numbers/skip-counting-game.html>

### **Skip Count Advanced**

Choose the number for skip-counting. Then try to hit the fruit with the correct number.

<http://www.sheppardsoftware.com/mathgames/earlymath/SkipCountAdvanced.htm>

### **Counting Game**

Choose a number for skip-counting. Then finish filling the number line before the time runs out.

<http://members.learningplanet.com/act/count/free.asp>

### **Online Skip Counting Games**

A collection of games for skip-counting.

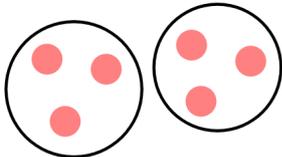
<http://www.free-training-tutorial.com/skip-counting-games.html>

## Many Times the Same Group

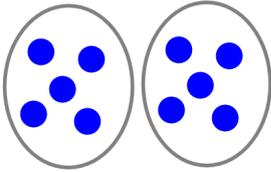
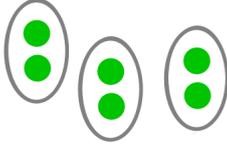
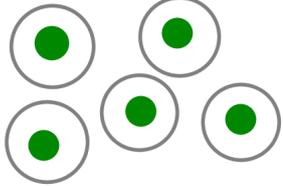
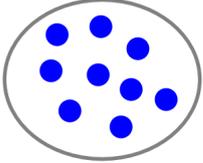
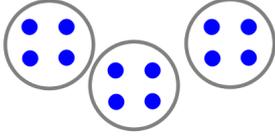
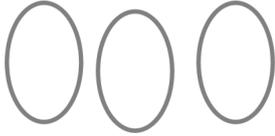
1. Write.

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.

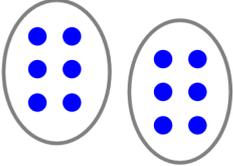
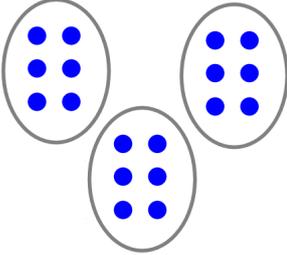
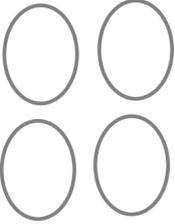
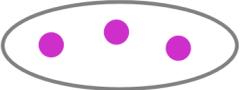
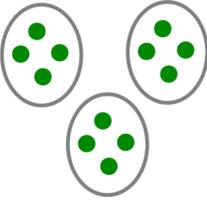
		
a. <u>2</u> times <u>5</u>	b. _____ times _____	c. _____ times _____
		
d. _____ times _____	e. _____ times _____	f. _____ times _____

$5 \times 3$ This means “5 times a group of 3.” It is called <b>multiplication</b> .	$2 \times 7$ This means “2 times a group of 7.” You <i>multiply</i> 2 times 7.
--	--

4. Now it's your turn to draw! Notice also the symbol  $\times$  which is read “times.”

a. 2 times 4 $2 \times 4$	b. 3 times 6 $3 \times 6$	c. 1 times 7 $1 \times 7$
d. 6 times 1 $6 \times 1$	e. 4 times 0 $4 \times 0$	f. 2 times 2 $2 \times 2$

5. Write the multiplication sentence. Write the total after the “ = ” sign.

<p>a. </p> <p><math>2 \times 6 = 12</math></p>	<p>b. </p> <p>_____ <math>\times</math> _____ = _____</p>	<p>c. </p> <p>_____ <math>\times</math> _____ = _____</p>
<p>d. </p> <p>_____ <math>\times</math> _____ = _____</p>	<p>e. </p> <p>_____ <math>\times</math> _____ = _____</p>	<p>f. </p> <p>_____ <math>\times</math> _____ = _____</p>

6. Draw the groups. Write the total.

<p>a. <math>8 \times 1 =</math> _____</p>	<p>b. <math>1 \times 10 =</math> _____</p>	<p>c. <math>2 \times 2 =</math> _____</p>
<p>d. <math>5 \times 2 =</math> _____</p>	<p>e. <math>2 \times 8 =</math> _____</p>	<p>f. <math>3 \times 3 =</math> _____</p>