

FOUNDATION



STEP-BY-STEP

MATHS

Grade 1 A

Maria Miller

Building our Future
through Education

Contents

Acknowledgments	6
About the Author	7
Editors' Profiles	8
Dedication	8
Foreword	9
Pacing Guide	10

Chapter 0: Grade R Revision

Introduction	11
Equal Amounts; Same and Different	12
Writing Numbers	13
Counting	15
Position Words, Colours, and Shapes	17
Patterns	19

Chapter 1: Addition 0-10

Introduction	20
Two Groups and a Total	24
Learn Symbols “ + ” and “ = ”	27
Addition Practice 1	30
Which is More?	32
Missing Items	34
Sums with 5	39
Sums with 6	41
Adding on a Number Line	43
Sums with 7	47
Sums with 8	50
Addition Practice 2	53
Sums with 9	56
Sums with 10	60
Comparisons	64
Revision of Addition Facts	67

Chapter 2: Subtraction 0-10

Introduction	71
Subtraction is “Taking Away”	74
Count Down to Subtract	77
Subtraction and Addition in the Same Picture	81
When Can You Subtract?	85
Two Subtractions from one Addition	89
Two Parts — One Total	92
Fact Families	95
How Many More?	99
“How Many More” Problems and Difference	102
“How Many More” Problems and Subtraction	106
Revision	109

Chapter 3: Place Value 0-100

Introduction	110
Counting in Groups of 10	113
Naming and Writing Numbers	115
The “Teen” Numbers	119
Building Numbers 11-40	122
A 100-Chart	124
Practicing Numbers 11-40	126
Building Numbers 41-100	128
Practicing Numbers 41-100	130
Which Number is Greater?	132
Rounding to the Nearest Ten	135
Even and Odd Numbers	137
Skip-Counting Practice	139
Mystery Numbers and More Practice	142
Revision	144

Chapter 4: Clock

Introduction	146
Whole and Half Hours	148
The Minutes and Half Hours	152
Time Order	156
AM and PM	158

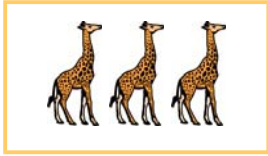
The 2011 Calendar	161
Mixed Revision, Chapters 1-4	163
Revision - Half Hours	165

SAMPLE

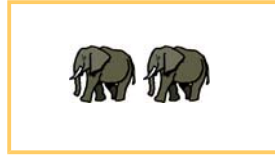
**SAMPLE PAGES FROM CHAPTER 0
(GRADE R REVISION)**

Counting

1. Count. Write the number in the box.



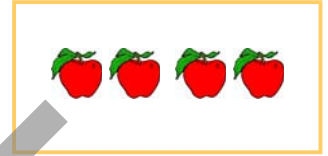
a.



b.



c.



d.



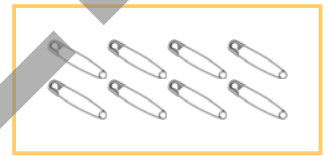
e.



f.



g.

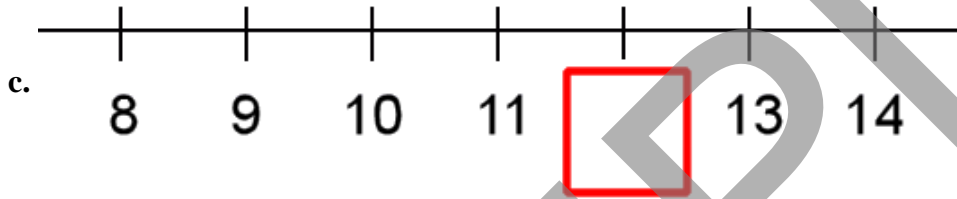
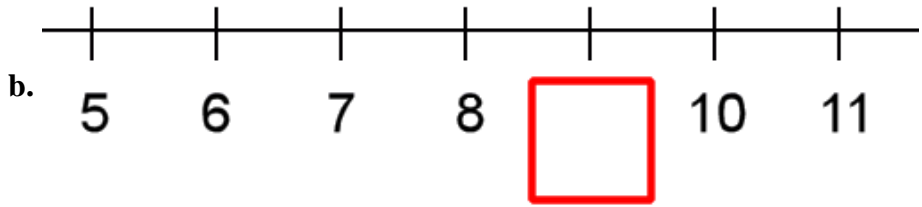
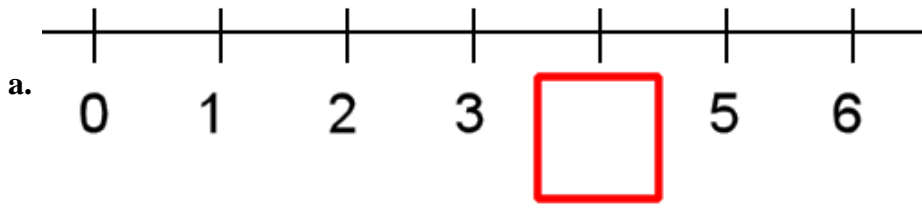


h.

2. Count. Write the number. Then circle the number that is MORE.

<p>a.</p> <table><tbody><tr><td></td><td></td></tr><tr><td><input type="text"/></td><td><input type="text"/></td></tr></tbody></table>			<input type="text"/>	<input type="text"/>	<p>b.</p> <table><tbody><tr><td></td><td></td></tr><tr><td><input type="text"/></td><td><input type="text"/></td></tr></tbody></table>			<input type="text"/>	<input type="text"/>
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3. Write the missing number below the number line.



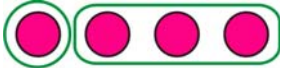





4. Circle the group that has more things. Then count them ALL (both groups). Write the number in the box below.

<p>a.</p> <input type="text"/>	<p>b.</p> <input type="text"/>	<p>c.</p> <input type="text"/>
<p>d.</p> <input type="text"/>	<p>e.</p> <input type="text"/>	<p>f.</p> <input type="text"/>










**SAMPLE PAGES FROM CHAPTER 1
(ADDITION 0-10)**

Two Groups and a Total

1. Make two groups.

<p>a. 4</p>  <p>1 and 3</p>	<p>b. 4</p>  <p>2 and 2</p>	<p>c. 4</p>  <p>3 and 1</p>
<p>d. 5</p>  <p>3 and 2</p>	<p>e. 5</p>  <p>2 and 3</p>	<p>f. 5</p>  <p>1 and 4</p>

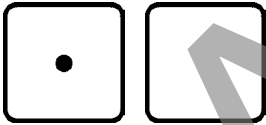
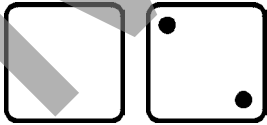
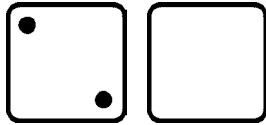

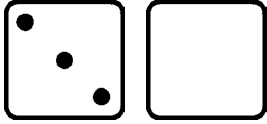

2. Make two groups. Write how many are in the second group.

<p>a. 4</p>  <p>1 and _____</p>	<p>b. 4</p>  <p>2 and _____</p>	<p>c. 4</p>  <p>3 and _____</p>
<p>d. 5</p>  <p>4 and _____</p>	<p>e. 5</p>  <p>3 and _____</p>	<p>f. 5</p>  <p>2 and _____</p>
<p>g. 5</p>  <p>1 and _____</p>	<p>h. 5</p>  <p>5 and _____</p>	<p>i. 5</p>  <p>0 and _____</p>

3. Draw as many dots as the number shows. Then make two groups however you like. Write how many are in each group.


a. 3 ____ and ____	b. 5 ____ and ____	c. 4 ____ and ____
d. 2 ____ and ____	e. 6 ____ and ____	f. 8 ____ and ____

4. The number at the top is the total. Draw the missing dots on the empty dice face. Write on the lines how many dots are on each dice face.

a. 3  ____ and ____	b. 6  ____ and ____	c. 5  ____ and ____
d. 4  ____ and ____	e. 6  ____ and ____	f. 5  ____ and ____

**SAMPLE PAGES FROM CHAPTER 2
(SUBTRACTION 0-10)**

Two Parts — One Total

<p>There are ten marbles. Some are blue and seven are white. How many are blue?</p> <p>You can write an addition sentence. You can ALSO write a subtraction sentence, even though nothing is taken away.</p>	 $\underline{\quad\quad} + 7 = 10$ $10 - 7 = \underline{\quad\quad}$ <p>Cover part of the total (the green marbles), and you will see the other part (the blue marbles).</p>
<p>There are five blue marbles and some white marbles in a bag. There is a total of nine marbles. How many are white?</p> <p>Draw the marbles. Write an addition sentence AND a subtraction sentence.</p>	$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$ $\underline{\quad\quad} - \underline{\quad\quad} = \underline{\quad\quad}$

1. Solve the word problems. Write an addition sentence AND a subtraction sentence.

<p>a. Mum put some blue and red flowers in a vase. Jen counted five red flowers, and a total of ten flowers. How many of the flowers are blue?</p>	$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$ $\underline{\quad\quad} - \underline{\quad\quad} = \underline{\quad\quad}$
<p>b. There are nine children on a team, and four of them are boys. How many are girls?</p>	$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$ $\underline{\quad\quad} - \underline{\quad\quad} = \underline{\quad\quad}$

c. Johan has ten socks in his basket. Eight of them are white, and the rest are black. How many are black?

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

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

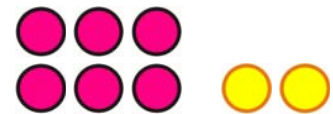
d. Griet saw eight chairs on the lawn, and two had blown over. How many were still sitting upright?

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

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

2. For each picture, make a word problem that is solved by subtraction.

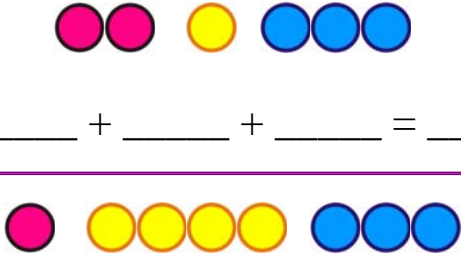
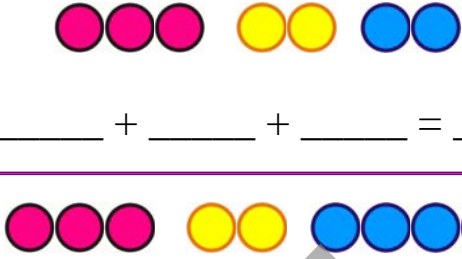
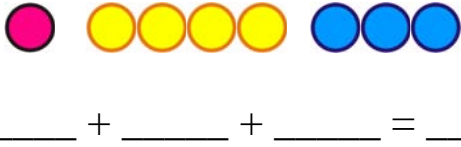
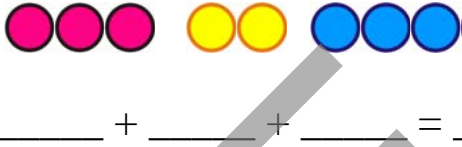
a.





b.



3. Write an addition sentence for the pictures.

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

4. Draw the missing marbles to match the addition sentence.

 <p>a. $3 + 2 + \underline{\quad} = 8$</p>	 <p>b. $1 + 5 + \underline{\quad} = 10$</p>
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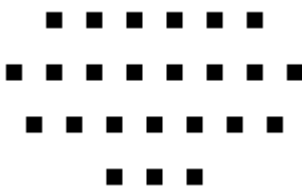
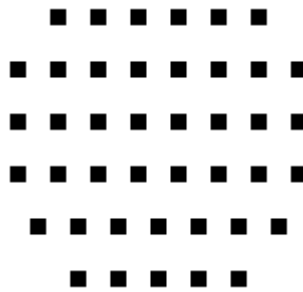
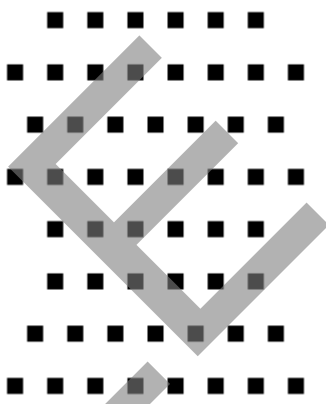
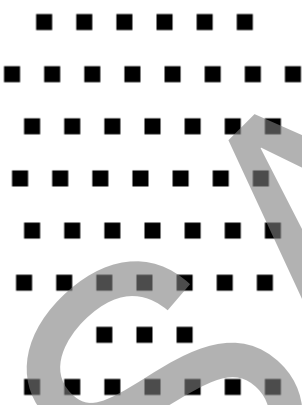
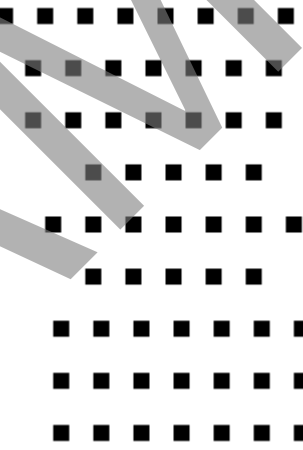
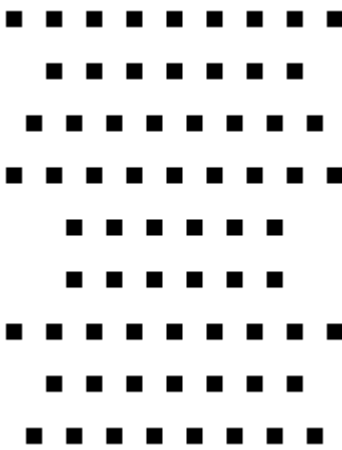
5. Draw a picture to solve these problems.

<p>a. Thandi had some red, blue, and yellow roses in a vase. Two roses were blue, and two were red. If she had a total of ten roses, how many of them were yellow?</p>
<p>b. Seven birds sat in a tree. One of them was black, two were blue, and the rest were brown. How many were brown?</p>
<p>c. Buhle has two long pencils, two medium-size pencils, and the rest of her pencils are short. If she owns nine pencils, how many of her pencils are short?</p>

**SAMPLE PAGES FROM CHAPTER 3
(PLACE VALUE 0-100)**

Counting in Groups of 10

1. Count in groups of TEN. Count ten dots, and circle them.
Write how many “ten-groups” that you get. Write how many ones are left over.

 <p style="text-align: center;">ten- groups ones</p> <p>a. <input style="width: 40px; height: 30px;" type="text"/> <input style="width: 40px; height: 30px;" type="text"/></p>	 <p style="text-align: center;">ten- groups ones</p> <p>b. <input style="width: 40px; height: 30px;" type="text"/> <input style="width: 40px; height: 30px;" type="text"/></p>	 <p style="text-align: center;">ten- groups ones</p> <p>c. <input style="width: 40px; height: 30px;" type="text"/> <input style="width: 40px; height: 30px;" type="text"/></p>
 <p style="text-align: center;">ten- groups ones</p> <p>d. <input style="width: 40px; height: 30px;" type="text"/> <input style="width: 40px; height: 30px;" type="text"/></p>	 <p style="text-align: center;">ten- groups ones</p> <p>e. <input style="width: 40px; height: 30px;" type="text"/> <input style="width: 40px; height: 30px;" type="text"/></p>	 <p style="text-align: center;">ten- groups ones</p> <p>f. <input style="width: 40px; height: 30px;" type="text"/> <input style="width: 40px; height: 30px;" type="text"/></p>

2. **Counting game 1.** (Optional - to give more practice for making groups of ten.)
Toss some beans or other objects onto a table. Ask the child to make groups of ten. Then ask the child to count the groups of ten and the individual ones, using “four-tens and six” or “seven-tens and one”, etc. Repeat as necessary with a different amount of objects, taking turns.

3. **Counting game 2.** You need: Counting items, such as sticks, beads, or beans. Small bags or bowls, OR rubber bands if using sticks.

Before the game: Place 10 of the items in the middle, and the rest in a pile on the side.

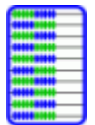
Play: At his turn, each player adds one more item to the middle pile on the table, and names the number that is formed. Whenever a whole ten is fulfilled, those ten items are grouped together with a rubber band or by placing them in a small bag or bowl.

ONLY use words one to ten when counting in this game. Words like eleven, thirteen, twenty, fifty etc. are not allowed. For example, eleven is said as “ten and one”, twelve is “ten and two”, twenty is “two tens”, twenty-five is “two tens and five”, etc.

Variation: Each player adds *two* (or some other quantity) matches to the pile instead of one.

4. Introduce the 100-bead abacus to the student.

Make these numbers with the 100-bead abacus.



a. 6 tens, 5 ones

e. 2 tens, 1 one

i. 4 tens, 6 ones

b. 2 tens, 7 ones

f. 8 tens, 9 ones

j. 6 tens

c. 7 tens

g. 9 tens, 3 ones

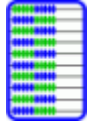
k. 7 tens, 1 one

d. 1 ten, 5 ones

h. 1 ten, 1 one

l. 1 ten, 8 ones

5. Take turns telling each other what number to make on the abacus, such as “7 tens and 9” or “1 ten and 7”. **Do not** proceed further until the student has mastered this! This is crucial.



The names of the numbers with whole tens are:

ten = ten

four tens = forty

seven tens = seventy

two tens = twenty

five tens = fifty

eight tens = eighty

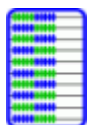
three tens = thirty

six tens = sixty

nine tens = ninety

ten tens = hundred

6. Say the number names from ten to hundred aloud a few times, while also making them with the 100-bead abacus. It almost sounds like a rhyme!



**SAMPLE PAGES FROM CHAPTER 4
(CLOCK)**

Whole and Half Hours

In this lesson, the clock only has one hand - the HOUR hand.



The hour hand points to four - it is four o'clock, or "four hours."



The hour hand points to eleven - it is eleven o'clock, or "eleven hours."

The hour hand slowly moves around the clock face: from 1 to 2 to 3, and so on.

When the hour hand moves from 1 to 2, exactly one hour of time has passed.

The same is true when the hour hand moves from 2 to 3. It takes the hour-hand one hour to do that.



On this clock, the hour hand has first pointed to 5 —it was five o'clock.

Then it has moved **halfway** between 5 and 6. We say it is **half past five**.




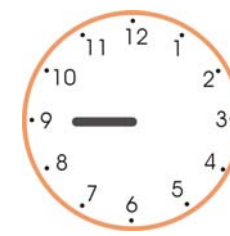
It takes the hour hand one-half hour to move from five to halfway between five and six.

The hour hand has moved past eight o'clock, and is halfway between 8 and 9. We say it is half past eight.

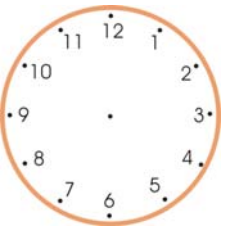
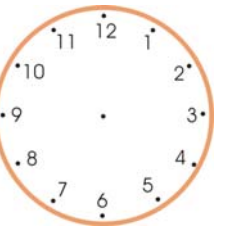
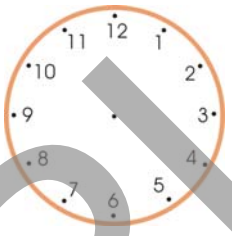
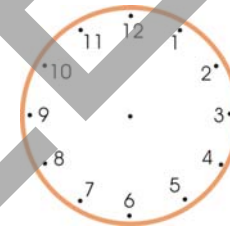
In half an hour it will be nine o'clock.







1. Write the time under each clock face.

			
a. ____ o'clock	b. ____ o'clock	c. ____ o'clock	d. ____ o'clock

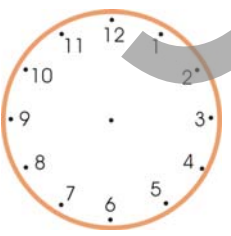
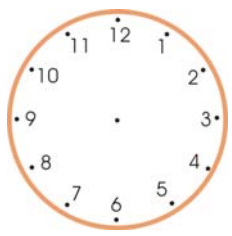
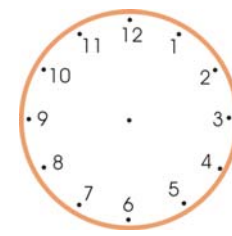
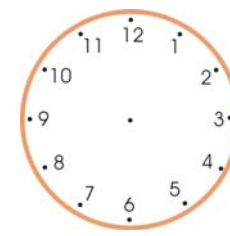
2. Draw the hour hand.

			
a. five o'clock	b. eight o'clock	c. twelve o'clock	d. seven o'clock

3. Write the time.

			
a. half past ____	b. half past ____	c. half past ____	d. half past ____

4. Draw the hour hand.

			
a. half past six	b. half past three	c. half past two	d. half past four