JICA Primary Mathematics

Teacher Manual

B4

Ghana Education Service (GES)

JICA

JICA Mathematics Teacher Manual

April 2025

About the teacher manual

This teacher manual was developed by the National STEM Resource Unit in GES, in collaboration with the Japan International Cooperation Agency (JICA) to improve mathematics achievement in primary education. This teacher manual was piloted for two years (from March 2023 to July 2024) for validation, and the schools that used this manual improved their academic achievement.

Purpose of the teacher manual.

Two major challenges were identified through various reports and school visits before the development of this teacher manual.

1. Learner achievement in mathematics is low, and learners do not have enough time to work on exercises.
2. Learners are weaker in reading and writing compared to listening and speaking.

To address these challenges, the teacher manual was designed to give learners the following:

1. high-quality exercises with examples;
2. enough time to work on exercises; and
3. enough chance to read and write.

Design of teacher manual

There are two types of lessons in the teacher manuals.

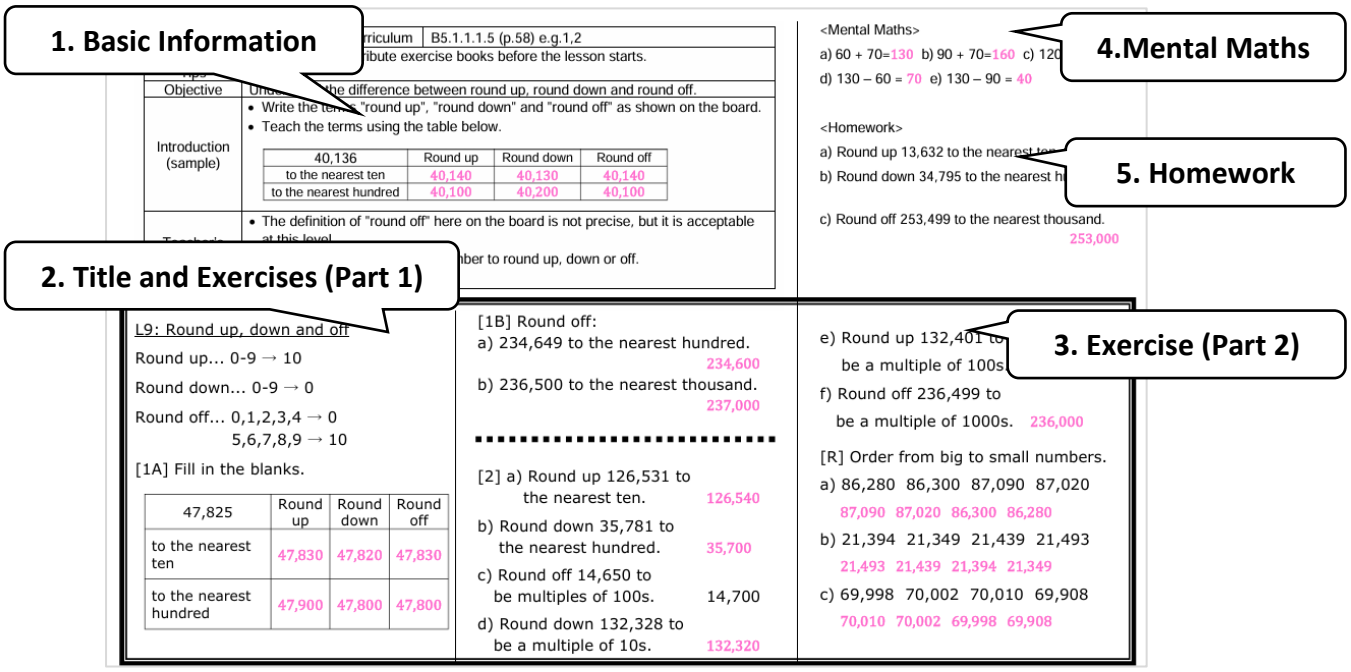
1. Normal lessons (learning new topics in the curriculum)
2. Review lessons (reviewing the previous four lessons)
   *Lesson numbers are multiples of 5 for review lessons.

A week consists of four normal lessons and one review lesson. There are 120 lessons in a year.

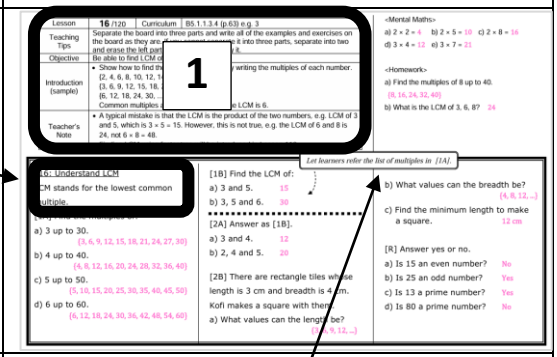
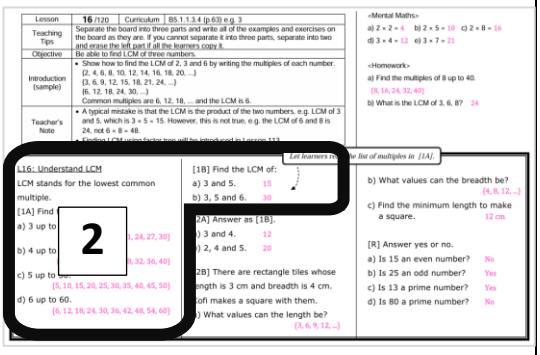
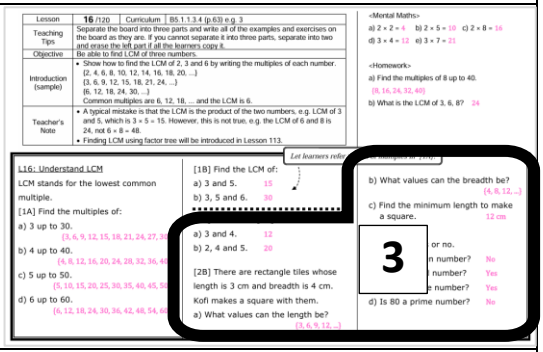
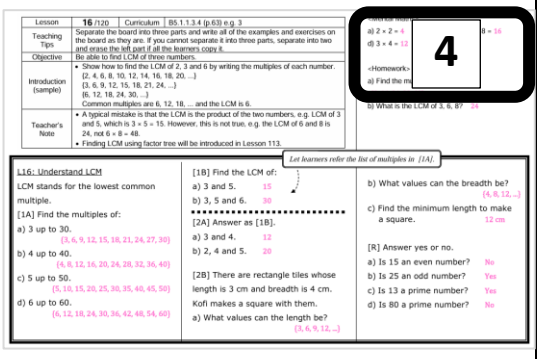
Lesson structure of the teacher manual

The teacher manual is designed for one lesson per page. Each page consists of five parts.

1. **Basic information about the lesson**
   - This part shows the lesson number, corresponding curriculum page, lesson objective, sample activities for introduction, teaching tips and teacher's notes.
   - Teaching tips are general guidelines that apply to all lessons, while the teacher's notes are specific to the lesson.
2. **Title and exercise (Part 1)**
   - The title is the lesson objective for learners.
   - Tasks in part 1 are shown in [1], [1A] or [1B]. Tasks that have answers in black are examples.
   - The first sub-task should be used for the evaluation of learners' understanding. If more than half of the learners cannot solve the first sub-task, please explain it again to the whole class.
   - The pink part is the answer, and you are expected to write it after learners have worked on it.
   - The lesson is divided in half by the dotted line. Exercise part 1 is up to the dotted line.
3. **Exercise (Part 2)**
   - Tasks in part 2 are shown by [2], [2A] or [2B].
   - [R] means a task from the previous lesson for review.
4. **Mental Maths**
   - This is practice for mental calculations. Learners need to memorise the answers.
5. **Homework**
   - If you want to give homework to the learners, you can use the tasks.



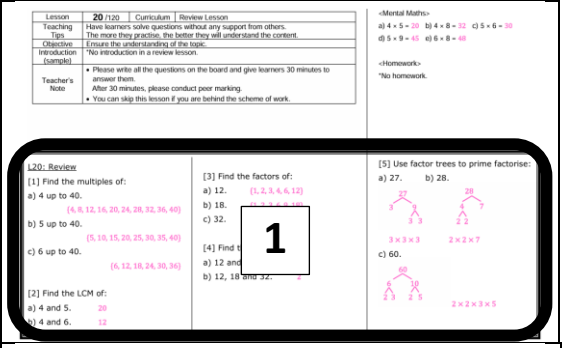
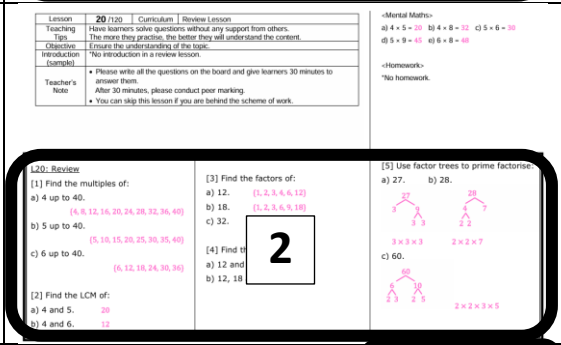
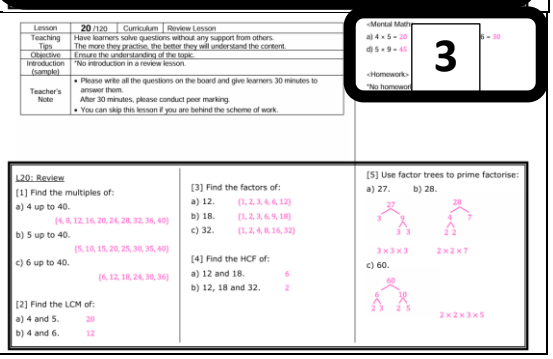
How to conduct the main lesson

	Procedure	Teacher manual
Introduction (15 min.)	• Explain today's topic. • The introduction is a sample activity related to today's lesson objective. • See if it is written "as shown on the board". *Do not exceed 15 minutes to maximise the time for exercise. *You can do group work if necessary.	
Exercise Part 1 **15 min. + 5 min.**	<Exercise (15 min.)> • **Writes all the black parts** except speech bubbles before the dotted line. • Have learners copy all the content into their exercise books and work on them independently. • Look around to support learners. <Peer marking (5 min.)> • **Write the pink parts**. • Have learners swap their exercise books and conduct peer marking.	This is a speech bubble. 
Exercise Part 2 **15 min. + 5 min.**	• Do it in the same way as Part 1 for the rest of the exercises. • The task shown in [R] is a revision task from the previous day. *Skip [R] if you don't have enough time.	
Mental Maths (5 min.)	• Give mental maths tasks verbally (don't write them). • Let learners write the tasks and answers in their exercise books. • Write the tasks and answers on the board. • Let learners conduct peer marking. • Let learners stand up and practice where they made mistakes. Let learners repeat them 5 times verbally.	

Lesson Flow Diagram

The above diagram shows the lesson flow. In the introduction part, teacher's support is the most, but as you move on to the exercise part I and part II, learners do the exercise by themselves. In the exercise part I, number of tasks are less than part II so that you can have more time to explain it.

How to conduct the review lesson

	Procedure	Teacher manual
Test (30 min.)	• Write all the black parts. • Have learners copy all the contents into their exercise books and work on them independently for **30 minutes**.	
Correction (25 min.)	• Write the pink parts. • Let learners conduct peer marking. • Give feedback for some of the tasks and let them do the correction. • Group work is encouraged.	
Mental Maths (5 min.)	• Do it in the same way as the normal lesson.	

FAQ

Time Management and Lesson Coverage

Q. What if learners cannot finish the exercises within the expected time?

A. Please adhere to the time limits for each step. Some content is intentionally designed to be slightly more than the average learner can complete within the designated time.

Q. What should I do if I finish the teacher manual?

A. Please review the lessons that learners struggled with. The teacher manual is designed to cover all the curriculum topics in 120 hours, which is fewer than the total number of lessons you are expected to conduct.

Q. What if I cannot finish the introduction within 15 minutes?

A. Prepare thoroughly to avoid this issue. Over-explanation does not help learners understand. Instead, give Exercise 1 and explain it after allowing some time so that learners can realise what should be answered.

Q. How should I handle lessons that take longer than the suggested time but are crucial for understanding?

A. If you are ahead of the scheme of work, repeat the lesson that learners could not solve after a while. If you are behind it, conduct remedial lessons.

Q. How should I address learners who are consistently unable to complete tasks within the given time frame?

A. Encourage them to finish at least one or two sub-tasks. Provide remedial lessons if possible.

Lesson Implementation

Q. What is the role of the teacher?

A. The teacher is expected to be aware of the following three points:
1. Write the content correctly and clearly on the board.
2. Give learners sufficient time to work on exercises rather than over-explaining.
3. Provide feedback to assist learners.

Q. Can I change or select the tasks if an exercise seems too easy or too difficult??

A. No. Please complete all the exercises as they are unless there is an obvious mistake. If you skip any content, you will not cover the full curriculum. If it is easy, add some tasks. If it is too difficult, give some hints to support learners.

Q. Which part of the board should the learners copy?

A. Learners should copy all the content written on the board. It is an opportunity for learners to practise writing sentences.

Q. What should I do after writing the black parts?

A. Look around the classroom to check the first sub-task. It serves as an evaluation task for the lesson. If more than half of the learners cannot solve it, explain the concept again using the first sub-task.

Q. Why are some answers written in black?

A. They serve as a hint (or an example) to help learners solve other tasks. Write all the pink parts after 15 minutes.

Q. Should I write the lesson objective?

A. No. The lesson objective is for teachers. It contains some difficult terminologies that learners do not have to know. It also takes time to write it. The tile of the lesson works as an lesson objective for learners.

Q. What should I do if I want to do pair or group work?

A. You can do pair or group work during the introduction part. Remember, the introduction is a sample activity that you can change accordingly. Peer marking is also an opportunity for pair work, as learners can discuss the solution. In the feedback session during review lessons, group work is encouraged for better understanding.

Q. Why do there seem to be so many tasks?

A. This teacher manual includes many tasks to keep all learners engaged and promote inclusivity. The teacher must present all exercises. Fast learners are encouraged to solve all of them, while slower learners do not need to complete every task. Please provide appropriate guidance based on each learner's level.

Mental Maths Instructions

Q. Why should I not write mental maths questions at first?

A. It is designed to help learners understand number sentences by listening.

Q. Why do learners have to stand up in correction time of mental maths?

A. If the learners stand up, you can easily see who is practising and who is not. If a learner does not make any mistakes, they do not have to stand up.

Q. How can I ensure that learners are effectively memorising answers during correction time?

A. Erase the answer on the board (do not erase the tasks) before correction. They need to read the tasks on the board because if they just read the answers in their exercise book, they won't memorise them effectively. Tell the correct answer verbally and have learners repeat it five times.

Scheme of Work

It is recommended to **write the date of the lesson in the teacher manual**. If you skip the review lesson, please write "skipped". This will help you teach next year or to show the progress to the headteacher or SISO.

Sample scheme of work

This sample scheme of work is developed for pacing. You can adjust it depending on your school situation.

If you are behind the following schedule, please skip the review lesson. Do NOT skip normal lessons.

For example, if you teach lesson 5 on 27th September or before, do not skip lesson 5. If you teach it after 27th September, skip lesson 5 to catch up.

Lesson	Date	Lesson	Date	Lesson	Date
5	27 September	45	10 December	85	19 March
10	8 October	50	15 January	90	28 March
15	17 October	55	24 January	95	16 May
20	26 October	60	2 February	100	25 May
25	4 November	65	11 February	105	3 June
30	13 November	70	20 February	110	12 June
35	22 November	75	1 March	115	21 June
40	1 December	80	10 March	120	30 June

Download the teacher manual and training contents

You can download the pdf files of this teacher manual. There are training contents (videos) explaining the above contents on the National STEM Resource Unit website.

Download files or watch a video from the QR code below.

File download	Watch video

Lesson Observation Sheet

The following is a tentative lesson observation sheet.

Name of the School _____ Name of Observer:_____

Date: _____ Lesson: _____ in term ____ Basic _____

Checklist

		Yes	No
1	Did the teacher measure time in each step?		
2	Did the teacher check all the learner's first sub-task and give the learners the necessary feedback?		
3	Did the teacher write the pink parts in the teacher manual after 15 minutes?		
4	Was the board at the end of the lesson the same as the teacher manual?		
5	Did learners write the contents of their exercise book on the board?		

Note for Observers:

- Check the learners' exercise books for the first sub-task of [1]. If more than half of the learners can solve it, the teacher does not need further explanation. If not, the teacher must explain the first sub-task.
- Check some of the learners' exercise books for the past lessons. It will show you the information about the lessons you did not observe.

Memo:

Lesson	**1** /120	Curriculum	B4.1.1.1.1 (p.2) e.g.1,2
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to model the numbers by multi-base diagrams.		
Introduction (sample)	• Draw multi-base diagram as shown on the board. • Show numbers (e.g. 2400 32,100) using a muti-base material and explain the relationship between the mutli-base material and the diagrams. • Show collections of objects and let learners estimate the number.		
Teacher's Note	• Simplify multi-base materials when drawing them because drawing flat with 10×10 grid takes time. • Make a multi-base material with a manila paper if you don't have blocks. • Let learners read the comma (e.g. 3,500) as thousand (1000 separator). This notation are used from B4.		

To reduce time, allow learners to draw multi-base diagrams without a ruler.

<Mental Maths>

a) 90 + 50=140 b) 70 + 60=130 c) 40 + 70=110

d) 110 – 50 = 60 e) 110 – 80 = 30

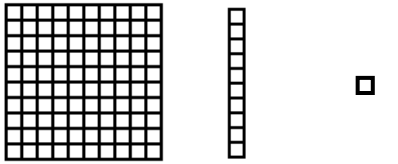
<Homework>

Answer as [1].

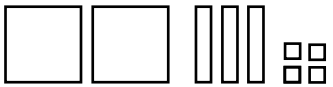
a) 3,800

b) 40,500

L1: Model numbers up to 100,000



10,000 1,000 100



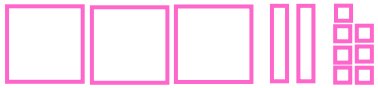
23,400

[1] Model the numbers.

a) 3,200

b) 5,400

c) 32,700

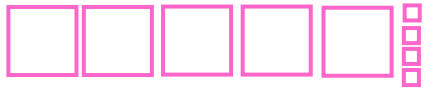


d) 20,300

[2A] Answer as [1].

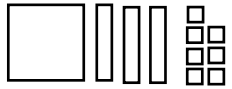
a) 4,600

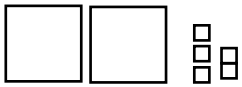
b) 50,400



[2B] Write the numbers represented.

a)  2,300

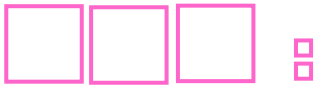
b)  13,700

c)  20,500

[R] Answer as [1].

a) 3,400

b) 30,200



Lesson	**2** /120	Curriculum	B4.1.1.1.1 (p.2) e.g.3
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Be able to model the numbers by money up to ¢10,000.		
Introduction (sample)	• Give learners teacher-made token currency notes (i.e. ¢1, ¢10 & ¢100 notes) on different coloured-paper and ask them to model or pick given amounts up to ¢10,000; e.g. ¢35, ¢123, ¢1,450.		
Teacher's Note	• Utilise the experience of money. It will help learners grasp the idea of base-ten number system. • Let learners understand that it is good to organise 12 of ¢100 by 3 × 4.		

<Mental Maths>

a) 50 + 60=110 b) 80 + 60=140 c) 50 + 70=120

d) 110 – 60 = 50 e) 110 – 90 = 20

<Homework>

Answer as [1B].

a) ¢347 $3 \times ¢100 + 4 \times ¢10 + 7 \times ¢1$

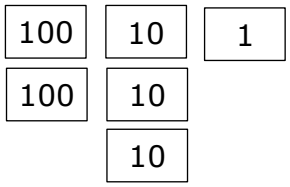
b) ¢1,254 $12 \times ¢100 + 5 \times ¢10 + 4 \times ¢1$

This dotted line separates exercise part 1 and 2.
Write all the black parts up to this line in exercise part 1.

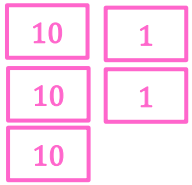
L2: Model numbers with money (1)

[1A] Model the numbers using ¢1, ¢10 or ¢100 notes.

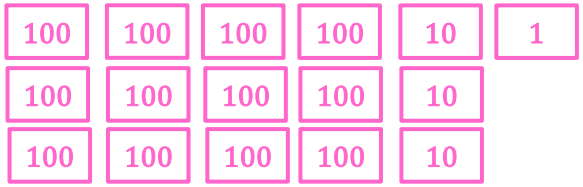
a) ¢231



b) ¢32



c) ¢1,231



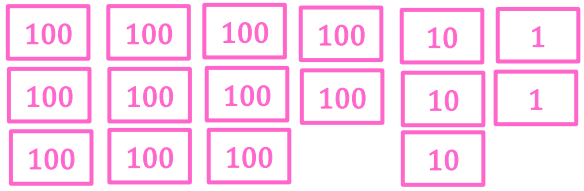
[1B] Show the currency in ¢1, ¢10 or ¢100.

a) ¢543 5×¢100 + 4×¢10 + 3×¢1

b) ¢56 $5 \times ¢10 + 6 \times ¢1$

c) ¢632 $6 \times ¢100 + 3 \times ¢10 + 2 \times ¢1$

[2A] Answer as [1A] for ¢1,132.



[2B] Answer as [1B].

a) ¢3,245

32 × ¢100 + 4 × ¢10 + 5 × ¢1

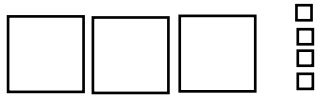
b) ¢1,256 $12 \times ¢100 + 5 \times ¢10 + 6 \times ¢1$

c) ¢2,679 $26 \times ¢100 + 7 \times ¢10 + 9 \times ¢1$

d) ¢5,109 $51 \times ¢100 + 9 \times ¢1$

[R] Write the numbers represented when a cube is 100.

a)  3,200

b)  30,400

Lesson	**3** /120	Curriculum	B4.1.1.1.1 (p.2) e.g.3
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Be able to model the numbers by money up to ¢100,000.		
Introduction (sample)	• Show learners teacher-made ¢100 notes for e.g. 10, 17, 24 and let them answer the total amount (i.e. ¢1,000, ¢1,700, ¢2,400). • Show how to convert the total amount and break downs to ¢10 and ¢100 as shown on the board.		
Teacher's Note	• Utilise the experience of money. It will help learners grasp the idea of base-ten number system.		

<Mental Maths>

a) 60 + 60=120 b) 90 + 60=150 c) 60 + 70=130

d) 110 – 70 = 40 e) 120 – 30 = 90

<Homework>

Answer as [1A].

a) ¢46,230 $462 \times ¢100 + 3 \times ¢10$

b) ¢90,000 $900 \times ¢100$

"as shown on the board" in the introduction part is written here. Let learners copy it during introduction time.

L3: Model numbers with money (2)

¢1,000 = 10 × ¢100

12 × ¢100 + 5 × ¢10 = ¢1,250

¢5,240 = 52 × ¢100 + 4 × ¢10

[1A] Show the amount in ¢10 or ¢100.

a) ¢50,000 $500 \times ¢100$

b) ¢1,470 $14 \times ¢100 + 7 \times ¢10$

c) ¢25,420 $254 \times ¢100 + 2 \times ¢10$

d) ¢100,000 $1{,}000 \times ¢100$

The initial sentence ("How many") applies to all subsequent statements.

[1B] How much is it?

a) 2×¢100 + 5×¢10 + 8×¢1 ¢258

b) 42 × ¢100 + 6 × ¢10 + 3 × ¢1 ¢4,263

[2A] Answer as [1A].

a) ¢60,000 $600 \times ¢100$

b) ¢35,240 $352 \times ¢100 + 4 \times ¢10$

[2B] How many:

a) thousands make 10,000? 10

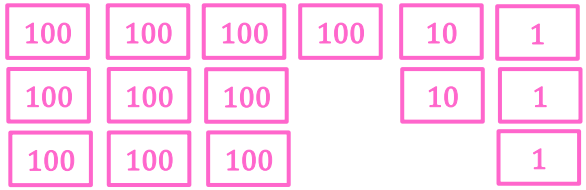
b) hundreds make 10,000? 100

c) thousands make 100,000? 100

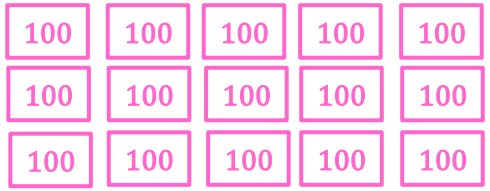
d) tens make 10,000? 1000

[R] Model the numbers using ¢1, ¢10 or ¢100 notes.

a) ¢1,023



b) ¢1,500



Lesson	**4** /120	Curriculum	B4.1.1.1.2 (p.3, 4) e.g.1,3
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Understand the meaning of place value using a place value table.		
Introduction (sample)	• Draw a place value chart as shown on the board. Then, ask: In 23,456, what is the value of: a) 5? 50 b) 4? 400 c) 3? 3,000 d) 2? 20,000 In 23,456, how many: a) tens are there? 5 b) hundreds are there? 4 c) thousands are there? 3 d) ten thousands are there? 2 • Write the meaning of place value as shown on the board.		
Teacher's Note	• Try place value number wheel. • [2B] is learnt in L3. However, we review it because it is related to place value.		

<Mental Maths>

a) 80 + 70=150 b) 40 + 80=120 c) 120 – 50=70

d) 120 – 80 = 40 e) 130 – 50 = 80

<Homework>

In 23,659, what is the value of:

a) 6? 600 b) 3? 3000

how many:

c) tens are there? 5

d) ten thousands are there? 2

L4: Show numbers in place value table

TTh	Th	H	T	O
2	3	4	5	6

5 means 50 5 tens

4 means 400 4 hundreds

3 means 3000 3 thousands

2 means 20000 2 ten thousands

[1] In 48,750, what is the value of:

a) 7? 700 b) 8? 8,000

c) 4? 40,000

[1B] In 39,468, how many:

a) tens are there? 6

b) hundreds are there? 4

c) thousands are there? 9

[2A] In 58,642,

what is the value of:

a) 4? 40 b) 8? 8000

how many:

c) hundreds are there? 6

d) ten thousands are there? 5

Check the difference in [1A] and [1B].

[2B] How many:

a) thousands make 10,000? 10

b) tens make 10,000? 1000

c) hundereds make 10,000? 100

[R] Fill in the blanks.

a) 2,000 3,000 4,000 5,000

b) 50,000 60,000 70,000 80,000

c) 8,000 9,000 10,000 11,000

d) 60,000 70,000 80,000 90,000

Lesson	**5** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L1, [2]: L2, [3]: L3, [4]: L4.		

<Mental Maths>

a) 100 – 30=70 b) 90 + 20=110 c) 70 + 40=110

d) 60 + 50 = 110 e) 110 – 20 = 90

<Homework>

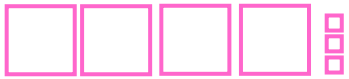
*No homework.

L5: Review

[1] Model the numbers when a cube is 100.

a) 2,700

b) 40,300



[2] Model ¢1,122 using ¢1, ¢10 or ¢100 notes.

100 100 100 100 10 1

100 100 100 100 10 1

100 100 100

[3] Show the currency in ¢10 or ¢100.

a) ¢25,380 $253 \times ¢100 + 8 \times ¢10$

b) ¢80,000 $800 \times ¢100$

[4] Expand the numbers.

a) 38,700 = $30{,}000 + 8{,}000 + 700$

b) 50,080 = $50{,}000 + 80$

Lesson	**6** /120	Curriculum	B4.1.1.1.2 (p.3, 4) e.g.1,3
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Be able to write the number name of a numeral or vice versa up to 100,000.		
Introduction (sample)	• Write the example 23,456 as shown on the board. Explain how to read it. • Play the number wheel game. (See the curriculum for more clarification.)		
Teacher's Note	• The numbers are limited to multiples of 10s or 100s. • Typical mistake is to write 2000300 for two thousand three hundred.		

<Mental Maths>

a) 70 + 70=140 b) 30 + 80=110 c) 120 – 40=80

d) 120 – 70 = 50 e) 130 – 40 = 90

<Homework>

Answer as [1A].

a) Four thousand seven hundred 4,700

b) Twenty-six thousand 26,000

c) Eighty thousand one hundred 80,100

"as shown on the board" in the introduction part is written here. Let learners copy it during introduction time.

Hide the last 3 digits.

L6: Write number names

23,456 → 23 thousand 456

Twenty-three thousand four hundred and fifty-six

[1A] Write the words in a number.

a) Four thousand six hundred 4,600

b) Five thousand nine hundred 5,900

c) Twelve thousand five hundred 12,500

d) Thirty-nine thoudand 39,000

e) Eighty thousand two hundred 80,200

[1B] Write the number in words.

a) 3,400 Three thousand four hundred

b) 49,000 Forty-nine thousand

c) 20,500 Twenty thousand five hundred

[2A] Answer as [1A].

a) Four thousand two hundred 4,200

b) Fifty-six thousand 56,000

c) Thirty thousand two hundred 30,200

Let learners read the comma as thousand.

[2B] Fill in the blanks.

a) 2,000 3,000 4,000 5,000

b) 50,000 60,000 70,000 80,000

c) 8,000 9,000 10,000 11,000

d) 60,000 70,000 80,000 90,000

[R] How much is it?

a) 12×¢100 + 6×¢10 + 4×¢1 ¢1,264

b) 30×¢100 + 7×¢10 + 4×¢1 ¢3,074

c) 53×¢100 + 7×¢1 ¢5,307

Skip review task if you don't have time.

Lesson	**7** /120	Curriculum	B4.1.1.1.2 (p.3) e.g.2; B4.1.1.1.3 (p.3) e.g.1
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to expand numbers up to 100,000.		
Introduction (sample)	• Show how to decompose numbers as shown on the board.		
Teacher's Note	• [1A] is the practice for [1B] and [2A]. • Teach the term "expand". In B3, learners used "decompose" instead of "expand".		

<Mental Maths>

a) 90 + 70=160 b) 50 + 80=130 c) 120 – 60=60

d) 120 – 90 = 30 e) 130 – 60 = 70

<Homework>

Answer as [1B].

a) 72,900 = 70,000 + 2,000 + 900

b) 40,080 = 40,000 + 80

L7: Expand numbers up to 100,000

6,120 = 6,000 + 100 + 20

43,021 = 40,000 + 3,000 + 20 + 1

[1A] Fill in the blanks.

a) 3,603 = 3,000 + 600 + 3

b) 4,157 = 4,000 + 100 + 50 + 7

c) 20,704 = 20,000 + 700 + 4

d) 64,020 = 60,000 + 4,000 + 20

[1B] Expand the numbers.

a) 15,000 = 10,000 + 5,000

b) 38,010 = 30,000 + 8,000 + 10

[2A] Answer as [1B].

a) 54,300 = 50,000 + 4,000 + 300

b) 60,090 = 60,000 + 90

[2B] Answer the questions.

21,000	21,500	22,000
31,000	31,500	32,000
41,000	41,500	42,000

What number is:

a) above 31,500? 21,500

b) below 32,000? 42,000

c) to the right of 31,000? 31,500

[R] In 34,982,

what is the value of:

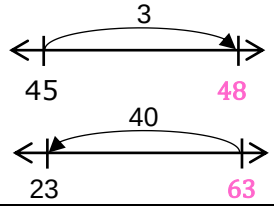
a) 8? 80 b) 3? 30,000

how many:

c) hundreds are there? 9

d) thousands are there? 4

Lesson	**8** /120	Curriculum	B4.1.1.1.4 (p.5) e.g.1
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Understand relative size of numbers by finding the start and end values.		
Introduction (sample)	• Draw ¢215 (two ¢100, one ¢10 and one ¢5 notes). Confirm that if you add ¢20, it does not affect the ones and hundreds places. If you add ¢300, it does not affect the tens and ones places. • Draw a number line to fill in the blank. a) 4,800 is 300 more than 4,500. b) 2,300 is 4,000 less than 6,300. *Omit the last 2 digits when drawing a number line.		
Teacher's Note	• Relative size means comparing a number to another one and find the difference. • Draw number lines so that they can see the relationship visually. A right arrow shows "more" and a left arrow shows "less".		



<Mental Maths>

a) 60 + 80=140 b) 90 + 80=170 c) 130 – 70=60

d) 140 – 50 = 90 e) 140 – 80 = 60

<Homework>

Answer as [1].

a) 2,700 is 300 more than 2,400.

b) 3,700 is 5,000 less than 8,700.

c) 6,500 is 4,000 more than 2,500.

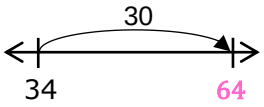
d) 4,200 is 500 less than 4,700.

Hide the last 2 digits.

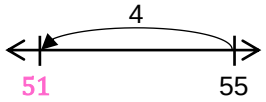
L8: Find relative size of numbers (1)

[1] Fill in the blanks.

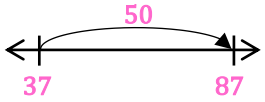
a) 640 is 300 more than 340.



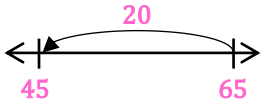
b) 510 is 40 less than 550.



c) 8,700 is 5,000 more than 3,700.

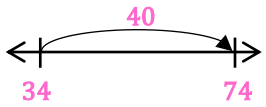


d) 4,500 is 2,000 less than 6,500.

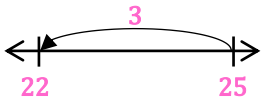


[2] Answer as [1].

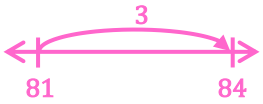
a) 740 is 400 more than 340.



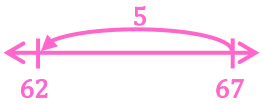
b) 220 is 30 less than 250.



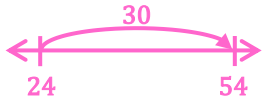
c) 8,400 is 300 more than 8,100.



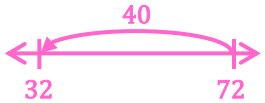
d) 6,200 is 500 less than 6,700.



e) 5,400 is 3,000 more than 2,400.



f) 3,200 is 4,000 less than 7,200.

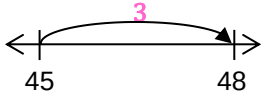
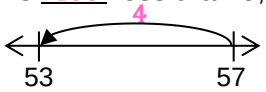
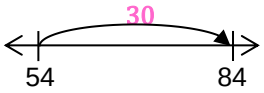
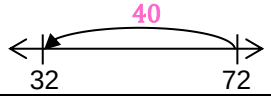


[R] Expand the numbers.

a) 53,420 = 50,000 + 3,000 + 400 + 20

b) 30,070 = 30,000 + 70

c) 10,101 = 10,000 + 100 + 1

Lesson	**9** /120	Curriculum	B4.1.1.1.4 (p.5) e.g.1
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Understand relative size of numbers by finding the differences.		
Introduction (sample)	• Fill in the blanks. Draw a number line to show the answers. a) 4,800 is 300 more than 4,500.  b) 5,300 is 400 less than 5,700.  c) 8,400 is 3,000 more than 5,400.  d) 3,200 is 4,000 less than 7,200. 		
Teacher's Note	• Draw number lines so that they can see the relationship visually. The bigger number comes right on the number line.		

<Mental Maths>

a) 70 + 80=150 b) 20 + 90=110 c) 130 – 80=50

d) 140 – 60 = 80 e) 140 – 90 = 50

<Homework>

Answer as [1].

a) 3,600 is 400 more than 3,200.

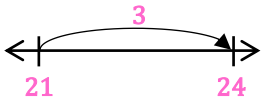
b) 5,200 is 600 less than 5,800.

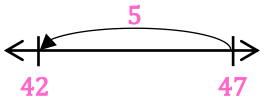
c) 5,600 is 2,000 more than 3,600.

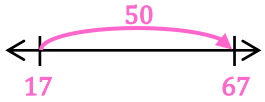
d) 4,900 is 3,000 less than 7,900.

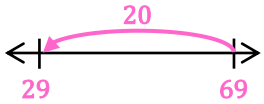
L9: Relative size of numbers (2)

[1] Fill in the blanks.

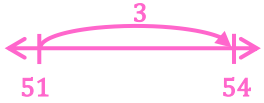
a) 2,400 is 300 more than 2,100. 

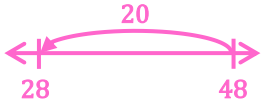
b) 4,200 is 500 less than 4,700. 

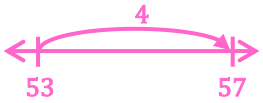
c) 6,700 is 5,000 more than 1,700. 

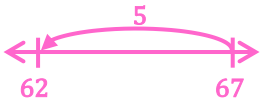
d) 2,900 is 4,000 less than 6,900. 

[2] Answer as [1].

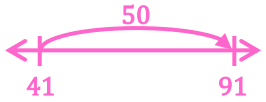
a) 5,400 is 300 more than 5,100. 

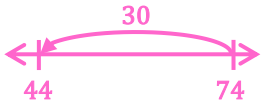
b) 2,800 is 2,000 less than 4,800. 

c) 5,700 is 400 more than 5,300. 

d) 6,200 is 500 less than 6,700. 

c) to f) are from yesterday's contents.

e) 9,100 is 5,000 more than 4,100. 

f) 4,400 is 3,000 less than 7,400. 

[R] Answer as [1].

a) 3,800 is 400 more than 3,400.

b) 7,300 is 600 less than 7,900.

c) 5,400 is 3,000 more than 2,400.

d) 3,500 is 4,000 less than 7,500.

Lesson	**10** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L6, [2]: L7, [3]: L8 & L9.		

<Mental Maths>

a) 100 – 50=50 b) 80 + 30=110 c) 80 + 40=120

d) 70 + 50 = 120 e) 110 – 30 = 80

<Homework>

*No homework.

L10: Review

[1] Write the words in a number.

a) Ninety-two thousand 92,000

b) Thirty thousand eight hundred 30,800

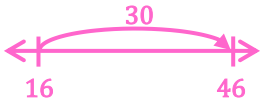
[2] Expand the numbers.

a) 15,000 = 10,000 + 5,000

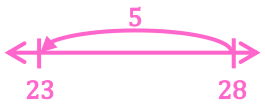
b) 38,010 = 30,000 + 8,000 + 10

[3] Fill in the blanks.

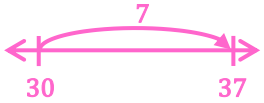
a) 4,600 is 3,000 more than 1,600.



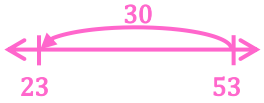
b) 2,300 is 500 less than 2,800.



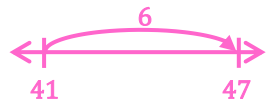
c) 3,700 is 700 more than 3,000.



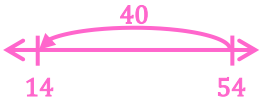
d) 2,300 is 3,000 less than 5,300.



e) 4,700 is 600 more than 4,100.



f) 1,400 is 4,000 less than 5,400.



Lesson	**11** /120	Curriculum	B4.1.1.1.4 (p.5) e.g.1,2
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Be able to compare and order numbers using the rule of place value.		
Introduction (sample)	• Compare two numbers by showing a multi-base material. a) 132 < 214 b) 305 < 320 c) 213 > 210 • Write the rule to compare two numbers as shown on the board. Solve: 34,891 < 35,123.		
Teacher's Note	• Learners should compare numbers using a multi-base material or diagram so that learners can visually see which is more in the introduction part. Then, apply the rule in the exercises. • It is better to hide some digits that is unnecessary for comparing.		

<Mental Maths>

a) 80 + 80=160 b) 30 + 90=120 c) 130 – 90=40

d) 140 – 70 = 70 e) 150 – 60 = 90

<Homework>

Answer as [2A].

a) 6,989 7,891 7,784 6,891

7,891 7,784 6,989 6,891

b) 31,329 31,330 31,409 31,402

31,409 31,402 31,330 31,329

c) 60,010 59,908 59,998 60,002

60,010 60,002 59,998 59,908

L11: Compare and order numbers

Hide some of the last digits on each side and compare.

[1A] Write > or <.

a) 503 > 499 b) 6,780 < 6,870

c) 3,940 < 4,040 d) 56,897 < 56,907

[1B] Order from small to big numbers.

a) 3,139 3,141 3,150 2,998

2,998 3,139 3,141 3,150

b) 12,345 15,432 13,524 15,423

12,345 13,524 15,423 15,432

[2A] Order from big to small numbers.

a) 79,861 89,761 98,716 78,984

98,716 89,761 79,861 78,984

b) 73,300 74,090 73,290 74,020

74,090 74,020 73,300 73,290

c) 50,010 49,100 49,099 50,009

50,010 50,009 49,100 49,099

When ordering, you need to compare numbers.
Hence, comparing and ordering are not two different topics.

[2B] Akoswa has the five cards, 3, 4, 5, 8, 9. Use all cards in the questions.

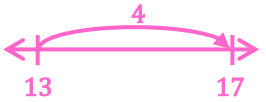
a) Find the biggest number? 98,543

b) Find the smallest number? 34,589

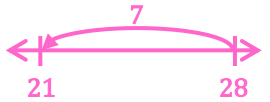
c) Numbers between 54,000 and 54,500. 54,389, 54,398

[R] Fill in the blanks.

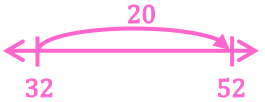
a) 1,700 is 400 more than 1,300.



b) 2,100 is 700 less than 2,800.



c) 5,200 is 2,000 more than 3,200.



Lesson	**12** /120	Curriculum	B4.1.1.1.5 (p.6) e.g.1,2
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Understand the difference between round up, round down and round off.		
Introduction (sample)	• Teach the terms "round up", "round down" and "round off" using the table.		
Teacher's Note	• Teach "round off" which is to find the closest number. • The definition of "round off" here on the board is not precise, but it is ok at this level. • Estimation is useful in daily life.		

6,251	Round up	Round down	Round off
to the nearest ten	6,260	6,250	6,250
to the nearest hundred	6,300	6,200	6,300

<Mental Maths>

a) 40 + 90=130 b) 70 + 90=160 c) 150 – 70=80

d) 160 – 70 = 90 e) 170 – 80 = 90

<Homework>

a) Round up 14,632 to the nearest ten. 14,630

b) Round down 34,795 to the nearest hundred. 34,700

c) Round off 53,499 to the nearest thousand. 53,000

L12: Round up, down and off

Round up... 0-9 → 10

Round down... 0-9 → 0

Round off... 0,1,2,3,4 → 0

5,6,7,8,9 → 10

[1A] Fill in the blanks.

4,725	Round up	Round down	Round off
to the nearest ten	4,730	4,720	4,730
to the nearest hundred	4,800	4,700	4,700

[1B] a) Round up 12,531 to the nearest ten. 12,540

b) Round down 35,781 to the nearest hundred. 35,700

[2A] a) Round off 42,650 to the nearest hundred. 42,700

b) Round off 23,238 to the nearest thousand. 23,000

c) Round off 14,650 to be a multiple of 100s. 14,700

d) Round up 13,401 to be a multiple of 100s. 13,500

e) Round off 23,499 to be a multiple of 1,000s. 23,000

f) Round down 78,491 to be a multiple of 100s. 78,400

[R] Order from big to small numbers.

a) 12,394 12,349 12,439 12,493
12,493 12,439 12,394 12,349

b) 86,281 86,303 87,095 87,022
87,095 87,022 86,303 86,281

Lesson	**13** /120	Curriculum	B4.1.1.1.5 (p.6) e.g.2,3
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Be able to estimate the answer in addition and subtraction.		
Introduction (sample)	• Teach the term "estimation". Show how to solve 3,520 + 5,310 and 624 – 371 as shown on the board. • Confirm that the precise answer is not exacly the same as the estimated answer.		
Teacher's Note	• Let learners point out which number to round off (the second digit in this lesson). • Calculation by estimation is useful in daily life.		

<Mental Maths>

a) 50 + 90=140 b) 80 + 90=170 c) 150 – 80=70

d) 160 – 80 = 80 e) 170 – 90 = 80

<Homework>

Estimate the answer by rounding off, then find the correct answer.

a) 231 + 376 = 607 b) 665 – 169 = 496

$200 + 400 = 600$ $700 - 200 = 500$

L13: Estimate sums and differences

3,520 + 5,310 4,000 + 5,000 = 9,000

624 – 371 600 – 400 = 200

[1] Estimate the answer by rounding off.

a) 520 + 280 $300 + 600 = 900$

b) 254 + 632 $500 + 300 = 800$

c) 4,280 + 2,620 $4{,}000 + 3{,}000 = 7{,}000$

d) 870 – 240 $900 - 200 = 700$

e) 737 – 298 $700 - 300 = 400$

f) 6,520 – 5,390 $7{,}000 - 5{,}000 = 2{,}000$

[2A] Answer as [1].

a) 412 + 483 $400 + 500 = 900$

b) 432 – 199 $400 - 200 = 200$

c) 2,520 + 5,390 $3{,}000 + 5{,}000 = 8{,}000$

d) 3,889 – 1,423 $4{,}000 - 1{,}000 = 3{,}000$

[2B] Find the correct answer in [2A].

a) 412 + 483 = 895

b) 432 – 199 = 233

[R]

a) Round up 32,411 to the nearest ten. 32,420

b) Round down 25,843 to the nearest hundred. 25,800

c) Round up the 12,540 to be a multiple of 100s. 12,600

d) Round down 13,238 to be a multiple of 1,000s. 13,000

Lesson	**14** /120	Curriculum	B4.1.1.1.6 (p.7) e.g.3
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Understand the base-ten number system by practising skip counting up to 10,000		
Introduction (sample)	• Skip count forwards and backwards starting: a) from 2,300 to 3,200 by 100s b) from 4,500 to 5,000 by 50s. c) from 8,500 to 9,500 by 100s d) from 6,700 to 7,200 by 50s • Fill in the blanks as shown on the board.		
Teacher's Note	• Have learners find the patterns by hiding zeros. e.g. 3,200 3,300 3400 => 32, 33, 34 by hiding two zeros. • In case of decreasing pattern, have them read from right to left to confirm the answer.		

<Mental Maths>

a) 60 + 90=150 b) 90 + 90=180 c) 150 – 90=60

d) 160 – 90 = 70 e) 180 – 90 = 90

<Homework>

Answer as [1].

a) 3,850 3,900 3,950 4,000 4,050

b) 6,100 6,000 5,900 5,800 5,700

c) 8,753 8,853 8,953 9,053 9,153

d) 5,213 5,113 5,013 4,913 4,813

L14: Skip count up to 10,000

6,850 6,900 6,950 7,000 7,050

3,300 3,200 3,100 3,000 2,900

[1] Fill in the blanks, then read aloud.

a) 4,350 4,400 4,450 4,500 4,550

b) 2,850 2,800 2,750 2,700 2,650

c) 5,800 5,900 6,000 6,100 6,200

d) 2,300 2,200 2,100 2,000 1,900

e) 3,548 3,648 3,748 3,848 3,948

[2A] Answer as [1].

a) 5,850 5,900 5,950 6,000 6,050

b) 4,213 4,113 4,013 3,913 3,813

[2B] Correct the errors.

a) 3,850 3,900 3,950 ~~3950~~ 4,050
4,000

b) 6,200 6,100 6,000 ~~6,900~~ 5,800
5,900

c) 3,214 ~~3,304~~ 3,414 3,514 3,614
3,314

d) ~~6,050~~ 5,950 5,900 5,850 5,800
6,000

[R] Estimate by rounding off.

a) 432 + 583 400 + 600 = 1,000

b) 2,520 + 7,410 3,000 + 7,000 = 10,000

c) 962 – 199 1,000 – 200 = 800

d) 5,889 – 1,357 6,000 – 1,000 = 5,000

Lesson	**15** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L11, [2]: L12, [3]: L13, [4]: L14.		

<Mental Maths>

a) 100 – 60=40 b) 90 + 30=120 c) 90 + 40=130

d) 80 + 50 = 130 e) 110 – 40 = 70

<Homework>

*No homework.

L15: Review

[1] Order from big to small numbers.

a) 6,389 6,390 6,409 6,402

6,409 6,402 6,390 6,389

b) 64,921 69,413 56,945 59,631

69,413 64,921 59,631 56,945

c) 14,010 13,998 13,908 14,001

14,010 14,001 13,998 13,908

[2]

a) Round up 13,583 to the nearest ten. 13,590

b) Round down 25,681 to the nearest hundred. 25,600

[3] Estimate by rounding off, then find the correct answer.

a) 382 + 423 = 805

400 + 400 = 800

b) 3,520 + 5,290 = 8,810

4,000 + 5,000 = 9,000

c) 532 – 199 = 333

500 – 200 = 300

d) 2,779 – 1,123 = 1,656

3,000 – 1,000 = 2,000

[4] Fill in the blanks.

a) 6,850 6,900 6,950 7,000 7,050

b) 4,000 3,900 3,800 3,700 3,600

c) 6,732 6,832 6,932 7,032 7,132

d) 6,213 6,113 6,013 5,913 5,813

Lesson	**16** /120	Curriculum	B4.1.1.2.1 (p.7) e.g.1,2
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Understand how to the meaning of Roman numerals up to 30.		
Introduction (sample)	• Introduce how to show numbers in Roman numerals as shown on the board. • Explain the rule below. ○ I = 1, V = 5, X = 10. ○ IV means 1 before V (five) which is 4, VI means 1 after V which is 6. ○ IX means 1 before X (ten) which is 9, XI means 1 after X which is 11. ○ XX means 2 tens which is 20 and XXX means 3 tens which is 30.		
Teacher's Note	• Learers need to remember the meaning of I = 1, V = 5 and X = 10. All the other numbers are shown in the combination of the three numbers. • Let learners divide tens and ones at the right of X (not left) so that it becomes like a place value table.		

<Mental Maths>

a) 2 × 2 = 4 b) 2 × 5 = 10 c) 2 × 8 = 16

d) 3 × 4 = 12 e) 3 × 7 = 21

<Homework>

Write in numbers or in Roman numerals.

a) VII = 7 b) XIV = 14 c) XX = 20

d) 4 = IV e) 13 = XIII f) 26 = XXVI

L16: Understand Roman numerals (1)

I = 1 II = 2 III = 3 IV = 4

V = 5 VI = 6 VII = 7 VIII = 8

IX = 9 X = 10

XIV = 10 + 4 = 14

XXVII = 20 + 7 = 27

[1] Write in numbers.

a) XII = 10 + 2 = 12

b) XV = 10 + 5 = 15

c) XVIII = 10 + 8 = 18

d) XXVI = 20 + 6 = 26

e) XXIX = 20 + 9 = 29

f) XXX = 30

[2A] Answer as [1].

a) IX = 9 b) XVII = 10 + 7 = 17

c) XX = 20 d) XXV = 20 + 5 = 25

[2B] Write in Roman numerals.

a) 8 = VIII b) 13 = 10 + 3 =XIII

c) 19 = 10 + 9 = XIX

d) 24 = 20 + 4 = XXIV

[R] Fill in the blanks, then read aloud

a) 3,850 3,900 3,950 4,000 4,050

b) 5,100 5,000 4,900 4,800 4,700

c) 5,765 5,865 5,965 6,065 6,165

d) 8,229 8,129 8,029 7,929 7,829

Lesson	**17** /120	Curriculum	B4.1.1.2.2 (p.8) e.g.1,2
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Be able to convert Hindu Arabic numerals and Roman numerals up to 30 and vice versa.		
Introduction (sample)	• Bring a clock with Roman numerals (or make it with a manila paper). Ask the time with the clock. • Write the Arabic numerals in Roman numerals as shown on the board.		
Teacher's Note	• The Roman numerals in the clock is rotated, so rotate the clock to show the numbers on the clock. • It is good to divide the Roman numerals into tens and ones.		

<Mental Maths>

a) 2 × 3 = 6 b) 2 × 6 = 12 c) 2 × 9 = 18

d) 3 × 5 = 15 e) 3 × 8 = 24

<Homework>

Answer as [1B].

a) V = 5 b) VII > 6 c) XVI > 15

d) XIX < 20 e) XXI < 22 f) XXX = 30

L17: Understand Roman numerals (2)

13 = 10 + 3 = XIII

25 = 20 + 5 = XXV

29 = 20 + 9 = XXIX

[1A] Write Roman numerals up to 20, with five numbers in each row.

I	II	III	IV	V
VI	VII	VIII	IX	X
XI	XII	XIII	XIV	XV
XVI	XVII	XVIII	XIX	XX

[1B] Write >, < or =.

a) 9 = IX b) 21 > XX

9 20

c) 23 < XIV

24

[2] Answer as [1B].

a) VII < 8 b) XI = 11

7 11

c) XV > 14 d) XIX = 19

19 22

e) 21 < XXII f) 25 > XXIV

22 24

g) XXVI < 27 h) 31 > XXX

26 30

[R] Write in numbers or Roman numerals.

a) VII = 7

b) XVI = 10 + 6 = 16

c) XXVIII = 20 + 8 = 28

d) 12 = 10 + 2 = XII

e) 14 = 10 + 4 = XIV

f) 29 = 20 + 9 = XXIX

Lesson	**18** /120	Curriculum	B4.1.1.3.1 (p.9) e.g.1,2
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Be able to find common multiples.		
Introduction (sample)	• Find multiples of 2, 3 and 5 as shown on the board. Then, let learners find the common multiples of 2 and 3.		
Teacher's Note	• This lesson is to prepare for the next lesson. Learners need to understand multiples before finding factors. • This lesson is also a review of multiplication. • From this topic, learners need to use multiplication up to 9×9 frequently, so let them memorise until they can tell the answer fluently. • Even and odd numbers are the contents in B4.1.1.3.4.		

<Mental Maths>

a) 2 × 4 = 8 b) 2 × 7 = 14 c) 3 × 3 = 9

d) 3 × 6 = 18 e) 3 × 9 = 27

<Homework>

Find the multiples of:

a) 3 up to 20. {3, 6, 9, 12, 15, 18}

b) 6 up to 30. {6, 12, 18, 24, 30}

c) 9 up to 50. {9, 18, 27, 36, 45}

Refer to [1A].

L18: Understand common multiples

2 up to 20?
{2, 4, 6, 8, 10, 12, 14, 16, 18, 20}

3 up to 25?
{3, 6, 9, 12, 15, 18, 21, 24}

5 up to 30? {5, 10, 15, 20, 25, 30}

[1A] Find the multiples of:

a) 4 up to 25? {4, 8, 12, 16, 20, 24}

b) 6 up to 40? {6, 12, 18, 24, 30, 36}

c) 7 up to 45? {7, 14, 21, 28, 35, 42}

d) 9 up to 60? {9, 18, 27, 36, 45, 54}

[1B] Find the common multiples of
3 and 4 up to 25. {12, 24}

[2A] Answer as [1B].

a) 3 and 6 up to 25? {6, 12, 18, 24}

b) 4 and 6 up to 24? {12, 24}

c) 6 and 9 up to 40? {18, 36}

d) 3 and 7 up to 25? {21}

[2B] a) Write odd numbers up to 20.
{1, 3, 5, 7, 9, 11, 13, 15, 17, 19}

b) Write even numbers up to 20.
{2, 4, 6, 8, 10, 12, 14, 16, 18, 20}

[R] Write >, < or =.

a) 7 = VII b) 15 > XIV
7 14

c) 25 > XXIV d) IX = 9
24 9

e) XXII < 23 f) XXVI > 25
22 26

Lesson	**19** /120	Curriculum	B4.1.1.3.1 (p.9) e.g.3
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Be able to find common factors.		
Introduction (sample)	• Let learners find factors of numbers 8 and 12 using bottle tops. • Write the factors of 8 and12 as shown on the board.		
Teacher's Note	• Confirm that by multiplying from both ends, all the answers become the original number.		

<Mental Maths>

a) 4 × 4 = 16 b) 4 × 7 = 28 c) 5 × 5 = 25

d) 5 × 8 = 40 e) 6 × 7 = 42

<Homework>

Find the factors of:

a) 7 {1, 7}

b) 16 {1, 2, 4, 8, 16}

c) 24 {1, 2, 3, 4, 6, 8, 12, 24}

d) 36 {1, 2, 3, 4, 6, 9, 12, 18, 36}

Find factors in pairs.

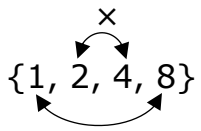
Let learners refer this in [1B] a).

Refer to [1A].

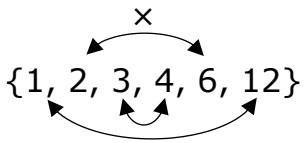
L19: Understand common factors

Factors of:

a) 8. 8 = 1 × 8, 8 = 2 × 4



b) 12. 12 = 1 × 12, 12 = 2 × 6, 12 = 3 × 4



[1A] Find the factors of:

a) 7. {1, 7} b) 6. {1, 2, 3, 6}

c) 9. {1, 3, 9} d) 15. {1, 3, 5, 15}

[1B] Find:

a) even numbers in the factors of 12. {2, 4, 6, 12}

b) odd numbers in the factors of 14. {1, 7}

[2A] Answer as [1A].

a) 5. {1, 5}

b) 16. {1, 2, 4, 8, 16}

c) 20. {1, 2, 4, 5, 10, 20}

d) 32. {1, 2, 4, 8, 16, 32}

[2B] Find the common factors of:

a) 6 and 8. {1, 2}

b) 12 and 16. {1, 2, 4}

c) 14 and 15. {1}

[R]

a) Find the multiples of 3 up to 25? {3, 6, 9, 12, 15, 18, 21, 24}

b) Find the multiples of 4 up to 25? {4, 8, 12, 16, 20, 24}

c) Find the common multiples of 3 and 4? {12, 24}

Lesson	**20** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L16, [2]: L17, [3]: L18, [4]: L19.		

<Mental Maths>

a) 6 × 4 = 24 b) 6 × 5 = 30 c) 9 × 4 = 36

d) 9 × 5 = 45 e) 8 × 7 = 56

<Homework>

*No homework.

L20: Review

[1] Write in numbers or in Roman numerals.

a) IX = 9 b) XVIII = 18 c) XXV = 25

d) 5 = V e) 16 = XVI f) 24 = XXIV

[2] Write >, < or =.

a) VII > 6 b) 16 = XVI

7 16

c) 18 < XIX d) XXX > 29

18 30

[3] Find the common multiples in:

a) 4 and 6 up to 25?

{4, 8, 12, 16, 20, 24}

{6, 12, 18, 24} {12, 24}

b) 4 and 8 up to 25?

{4, 8, 12, 16, 20, 24}

{8, 16, 24} {8, 16, 24}

[4] Find the common factors of:

a) 8 and 12.

{1, 2, 4, 8}

{1, 2, 3, 4, 6, 12} {1, 2, 4}

b) 6 and 12.

{1, 2, 3, 6}

{1, 2, 3, 4, 6, 12} {1, 2, 3, 6}

Lesson	**21** /120	Curriculum	B4.1.1.3.3 (p.10) e.g.1,2
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Be able to find LCM.		
Introduction (sample)	• Show how to find the LCM of: a) 4 and 5. {4, 8, 12, 16, 20,…} {5, 10, 15, 20,…} 20 b) 6 and 8. {6, 12, 18, 24,…} {8, 16, 24,…} 24 • Write the meaning of LCM as shown on the board.		
Teacher's Note	• Typical mistake is that the LCM is the product of the two numbers, e.g. LCM of 3 and 5 is 15, which is 3×5. However, this is not true, e.g. the LCM of 6 and 8 is 24, not 6×8=48. • In [1], only a) and b) are shown the solution. The same approach applies to the rest of the questions.		

<Mental Maths>

a) 4 × 5 = 20 b) 4 × 8 = 32 c) 5 × 6 = 30

d) 5 × 9 = 45 e) 6 × 8 = 48

<Homework>

Find the LCM of:

a) 6 and 15. 30

b) 8 and 12. 24

c) 7 and 14. 14

This dotted line separates exercise part 1 and 2.
Write all the black parts up to this line in exercise part 1.

L21: Understand LCM

LCM stands for
the lowest common multiple.

[1] Find the LCM of:

a) 3 and 5.

{3, 6, 9, 12, 15, …}

{5, 10, 15, …} LCM is 15.

b) 3 and 4.

{3, 6, 9, 12 …}

{4, 8, 12, …} LCM is 12

c) 4 and 6. 12

d) 5 and 10. 10

List the factors if necessary.

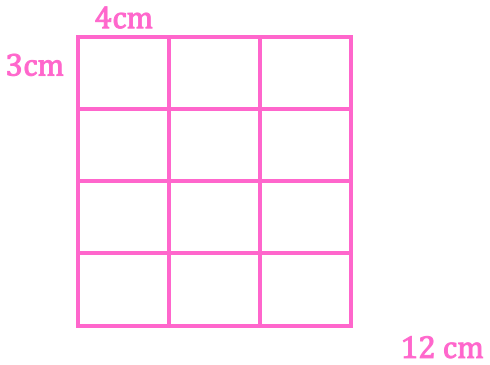
[2A] Answer as [1].

a) 8 and 10 40

b) 6 and 9 18

c) 20 and 25. 100

[2B] There are rectangles whose length is 4 cm and breadth is 3 cm. What is the minimum length to make a square?

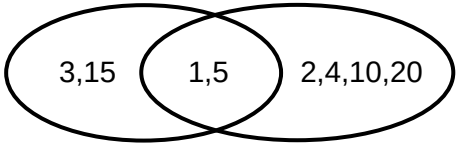


[R] Find the common factors of:

a) 5 and 10. {1, 5}

b) 8 and 12. {1, 2, 4}

c) 16 and 20. {1, 2, 4}

Lesson	**22** /120	Curriculum	B4.1.1.3.2 (p.10) e.g.1,2
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to find HCF.		
Introduction (sample)	• Show how to find the HCF using a Venn diagram and by listing factors of 15 and 20. {1, 3, 5, 15} {1, 2, 4, 5, 10, 20}  • Write the meaning of HCF as shown on the board.		
Teacher's Note	• A Venn diagram is useful to find HCF. However, it may be difficult for some learners. In that case, learners can list the factors and circle the common factors.		

"as shown on the board" in the introduction part is written here. Let learners copy it during introduction time.

<Mental Maths>

a) 4 × 6 = 24 b) 4 × 9 = 36 c) 5 × 7 = 35

d) 6 × 6 = 36 e) 6 × 9 = 54

<Homework>

Find the HCF of:

a) 12 and 18. 6

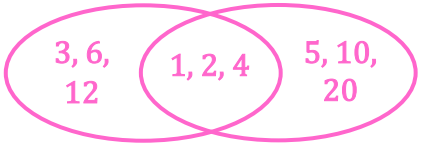
b) 25 and 30. 5

c) 28 and 35. 7

L22: Understand HCF

HCF stands for
the highest common factor.

[1A] Find the common factors of 12 and 20 using a Venn diagram.



[1B] Find the HCF of:

a) 8 and 12.

{1, 2, (4), 8}

{1, 2, (4), 6, 12}

b) 16 and 24. {1, 2, 4, (8), 16}

{1, 2, 4, 6, (8), 12, 24}

c) 21 and 28 {1, 3, (7), 21}

{1, 2, 4, (7), 14, 28}

[2A] Answer as [1B].

a) 15 and 18. {1, (3), 5, 15}

{1, 2, (3), 6, 9, 18}

b) 14 and 21. {1, 2, (7), 14}

{1, 3, (7), 21}

c) 18 and 24. {1, 2, 3, (6), 9, 18}

{1, 2, 4, (6), 12, 24}

[2B] There are 24 white and 28 pink flowers. Ama shares them equally. How many flowers each can she share?

HCF of 24 and 28 is 4.

4 × 6 = 24 and 4 × 7 = 28.

White 6, Pink 7.

[R] Find the LCM of:

a) 5 and 7 35

b) 10 and 15 30

c) 8 and 10 40

Skip review task if you don't have time.

Lesson	**23** /120	Curriculum	B4.1.1.3.4 (p.11) e.g.1,3
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Understand the relationship between multiples and factors.		
Introduction (sample)	• Explain the relationship between factors and multiples as shown on the board.		
Teacher's Note	• In [1A], 5 is a factor of 20, but not vice versa.		

<Mental Maths>

a) 2 × 2 = 4 b) 2 × 5 = 10 c) 2 × 8 = 16

d) 7 × 7 = 49 e) 8 × 8 = 64

<Homework>

Answer as [1A].

a) 5 is a factor of 30. True

b) 6 is a multiple of 24. False

c) 43 is a multiple of 7. False

d) 8 is a factor of 32. True

There are several different decompositions, e.g. 36 = 4 × 9 or 36 = 3 × 12. Let learners know it.

L23: Understand the relationship between multiples and factors.

multiple of 4

$5 \times 4 = 20$

factor of 20 factor of 20 multiple of 5

[1A] Are the statements true or false?

a) 20 is a factor of 5. False

b) 40 is a multiple of 6. False

c) 64 is a multiple of 8. True

d) 7 is a factor of 45. False

[1B] Decompose the number.

a) 10 = 2 × 5 b) 15 = 3 × 5

c) 36 = 6 × 6 d) 42 = 6 × 7

[2A] Answer as [1A].

a) 5 is a factor of 40. True

b) 6 is a multiple of 30. False

c) 48 is a multiple of 7. False

d) 32 is a factor of 8. False

30 is a multiple of 6, not vice versa.

[2B] Find:

a) LCM of 3 and 4. 12

b) HCF of 12 and 15. 3

c) LCM of 8 and 6. 24

[R] Find the HCF of:

a) 20 and 16. 4

b) 28 and 21. 7

c) 45 and 36. 9

Lesson	**24** /120	Curriculum	B4.1.1.3.5 (p.11) e.g.1,2
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Be able to generate and analyse patterns in square numbers.		
Introduction (sample)	• Give 25 bottle tops to each group of learners. Let learners make a square with it. Ask how many bottle tops do they need? (If the length is 3, they need 3^2 bottle tops.) • Teach the terms "squre number" as the number of $\square^2$.		
Teacher's Note	• The term "square" appears in many parts of mathematics. For instance, the area is shown in cm^2 or m^2, square is the name of a shape or $\square^2$ is $\square \times \square$.		

<Mental Maths>

a) 2 × 3 = 6 b) 2 × 6 = 12 c) 2 × 9 = 18

d) 7 × 8 = 56 e) 8 × 9 = 72

<Homework>

Find the square number of :

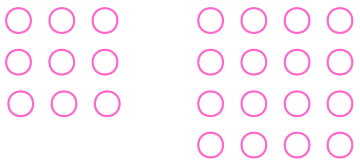
a) 7. 49 b) 8. 64

c) 9. 81 d) 10. 100

L24: Generate and analyse patterns.

3. $3^2 = 3 \times 3 = 9$

[1A] a) Arrange circles into a square if the length is 3 and 4.



b) Find the number of circles if the length is 8. $8^2 = 8 \times 8 = 64$

[1B] Find the square number of:

a) 10. $10^2 = 10 \times 10 = 100$

b) 5. $5^2 = 5 \times 5 = 25$

b) 7. $7^2 = 7 \times 7 = 49$

[2A] Find the square number of :

a) 6. $6^2 = 6 \times 6 = 36$

b) 9. $9^2 = 9 \times 9 = 81$

[2B] a) Fill in the multiplication table.

	5	6	7	8	9
5	25	30	35	40	45
6	30	36	42	48	54
7	35	42	49	56	63
8	40	48	56	64	72
9	45	54	63	72	81

b) Circle the square numbers.

[R] Are the statements true or false?

a) 48 is a multiple of 7. False

b) 8 is a factor of 60. False

c) 50 is a factor of 5. False

d) 30 is a multiple of 6. True

Lesson	**25** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L21, [2]: L22, [3]: L23, [4]: L24.		

<Mental Maths>

a) 9 × 3 = 27 b) 8 × 4 = 32 c) 8 × 5 = 40

d) 8 × 6 = 48 e) 9 × 7 = 63

<Homework>

*No homework.

L25: Review

[1] Find the LCM of:

a) 4 and 10.

{4, 8, 12, 16, 20, ...}

{10, 20, ...} LCM is 20.

b) 6 and 9.

{6, 12, 18, ...}

{9, 18, ...} LCM is 18.

[2] Find the HCF of:

a) 12 and 18. 6

b) 14 and 21. 7

[3] Are the statements true or false?

a) 30 is a factor of 5. False

b) 36 is a multiple of 6. True

c) 7 is a multiple of 49. False

d) 8 is a factor of 50. False

5 is a factor of 30, not vice versa.

[4] Find the square number of:

a) 5. 25 b) 9. 81

Lesson	**26** /120	Curriculum	B4.1.1.3.5 (p. 11) e.g.1,2 ; B4.1.1.3.6 (p.12) e.g.1,2
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Be able to represent square numbers using factors.		
Introduction (sample)	• Draw 3cm×3cm squares as shown on the board. Teach the terms "area" as the number of 1cm² square. • Draw 25 circles as shown on the board. Divide them as shown on the board and show the relationship between the sum of odd numbers and the square numbers.		
Teacher's Note	• Area will be dealt in the latter part of this year. Do not put empahsis on the meaning of it.		

<Mental Maths>

a) 2 × 4 = 8 b) 2 × 7 = 14 c) 3 × 3 = 9

d) 7 × 9 = 63 e) 9 × 9 = 81

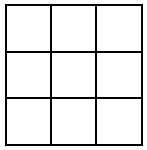
<Homework>

Answer as [1B].

a) 25? 5 b) 81? 9

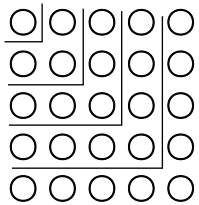
Remember that the square is used instead of circles in finding area.

L26: Represent square numbers using factors



The area is the number of 1cm² squares.

← 9cm²



[1A] Find the number of circles:

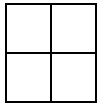
a) using addition.

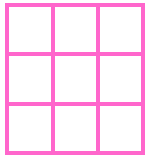
$1+3+5+7+9=25$

b) using multiplication. $5^2=5\times5=25$

[1B] What is the length of a square if the area is:

a) 4? 2 b) 9? 3





c) 16? 4 $(16=4\times4)$

Find by calculation, not by drawing.

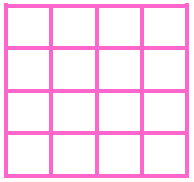
[2A] Answer as [1B].

a) 36? 6 $(36=6\times6)$

b) 64? 8 $(64=8\times8)$

c) 100? 10 $(100=10\times10)$

[2B] Draw a square whose area is 16.



[R] Find the square number of :

a) 5. 25 b) 7. 49

c) 9. 81 d) 10. 100

Lesson	**27** /120	Curriculum	B4.1.1.4.1 (p.13) e.g.1; B4.1.1.4.2 (p.13) e.g.1
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Understand negative values on the number line.		
Introduction (sample)	• Draw a number line and let learners count forwards and backwards. • Draw a long number line on the board. Say positive or negative values randomly and let a learner move to the value.		
Teacher's Note	• Avoid drawing number lines on the floor if the number of learners are many in your class because they cannot see it.		

<Mental Maths>

a) 3 × 4 = 12 b) 3 × 7 = 21 c) 4 × 4 = 16

d) 4 × 7 = 28 e) 5 × 5 = 25

<Homework>

Answer as [2B].

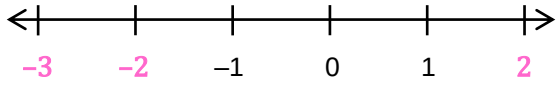
a) 5 less than 0? – 5

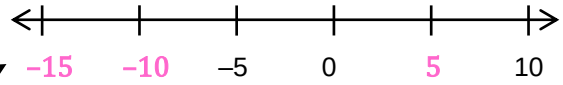
b) 10 more than 0? +10

c) 15 less than 0? – 15

L27: Understand negative values

[1A] Fill in the blanks.

a) 

b) 

c) 

The calibration of number lines are not always 1. It can be 5 or 10.

[1B] Draw a number line and indicate the numbers.

a) –3 , –1, 0, 2

b) –10, –5, 0, 5

[2A] Answer as [1A].

a) 

b) 

[2B] What is:

a) 6 less than 0? – 6

b) 30 more than 0? +30

c) 20 less than 0? – 20

[R] What is the length of a square if the area is:

a) 36? 6 b) 81? 9

Lesson	**28** /120	Curriculum	B4.1.2.1.1 (p.14) e.g.1-4; B4.1.2.2.1. (p.14) e.g.
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Understand how to decompose multiplication into two using diagrams.		
Introduction (sample)	• Show 3 × 4 in both fence and array diagram. • Explain double and half. a) A double of 8. 2 × 8 = 24 b) Half 24. 24 ÷ 2 = 12 c) Double 6 twice. 2 × 2 × 6 = 24 d) Half 36 twice. 28 ÷ 2 ÷ 2 = 7 • Square numbers are learnt in L24.		
Teacher's Note	• This teacher's guide use an array diagram instead of fence more frequently because it will help learners understand area in the later part. • Let learners avoid counting circles. Learners must memorise multiplication tables up to 9 × 9.		

<Mental Maths>

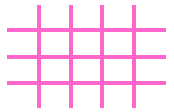
a) 3 × 5 = 15 b) 3 × 8 = 24 c) 4 × 5 = 20

d) 4 × 8 = 32 e) 5 × 6 = 30

<Homework>

Answer as [1A].

a) 4 × 3 b) 3 × 4



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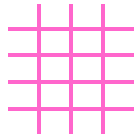
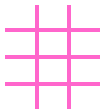


12

L28: Model multiplication by fence

[1A] Model the following using a fence and find the answer.

a) 2 × 3 b) 5 × 4



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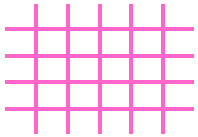


20

[1B] Solve:

a) Double 8. $2 \times 8 = 16$

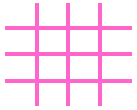
b) Square 3. $3 \times 3 = 9$

c) Double 15. $2 \times 15 = 30$

d) Halve 10. $10 \div 2 = 5$

[2A] Answer as [1A].

a) 3 × 3 b) 6 × 2



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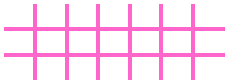


12

[2B]

a) Double 12. $2 \times 12 = 24$

b) Square 7. $7 \times 7 = 49$

c) Double 7 twice. $2 \times 2 \times 7 = 28$

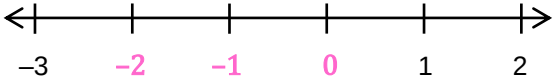
d) Halve 36 twice. $36 \div 2 \div 2 = 9$

e) Double 15 twice. $2 \times 2 \times 15 = 60$

f) Halve 48 twice. $48 \div 2 \div 2 = 12$

[R] Draw a number line and indicate the numbers.

a)



b)

Lesson	**29** /120	Curriculum	B4.1.2.1.1 (p.14) e.g.1-4
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Understand how to decompose multiplication into two using diagrams.		
Introduction (sample)	• Show 4 × 5 in an array diagram as shown on the board. • Explain how to divide multiplication into two parts.		
Teacher's Note	• This teacher's guide use an array diagram instead of fence more frequently because it will help learners understand area in the later part.		

<Mental Maths>

a) 3 × 6 = 18 b) 3 × 9 = 27 c) 4 × 6 = 24

d) 4 × 9 = 36 e) 5 × 7 = 35

<Homework>

Answer as [1B].

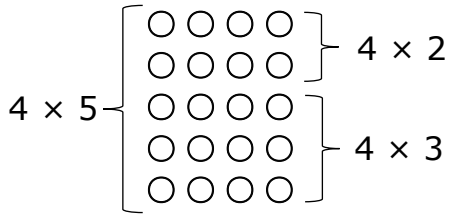
a) 6 × 8 = 4 × 8 + 2 × 8

b) 9 × 7 = 6 × 7 + 3 × 7

c) 8 × 8 = 8 × 5 + 8 × 3

a) and b) is corresponding to the diagram in [1A].

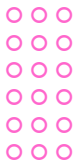
L29: Decompose multiplication



4 × 5 = 4 × 2 + 4 × 3

[1A] Show the multiplication by circles.

a) 3 × 2 + 3 × 4 b) 1 × 5 + 3 × 5



[1B] Fill in the blanks.

a) 3 × 6 = 3 × 2 + 3 × 4

b) 4 × 5 = 1 × 5 + 3 × 5

c) 5 × 9 = 5 × 4 + 5 × 5

d) 7 × 4 = 2 × 4 + 5 × 4

[2A] Solve as [1B].

a) 4 × 6 = 1 × 6 + 3 × 6

b) 8 × 8 = 8 × 5 + 8 × 3

c) 9 × 7 = 5 × 7 + 4 × 7

d) 8 × 9 = 8 × 3 + 8 × 6

[2B] Calculate both sides of [2A].

a) $4 \times 6 = 24$

$1 \times 6 + 3 \times 6 = 6 + 18 = 24$

b) $8 \times 8 = 64$

$8 \times 5 + 8 \times 3 = 40 + 24 = 64$

[R]

a) Double 8. $2 \times 8 = 16$

b) Square 8. $8 \times 8 = 64$

c) Double 11 twice. $2 \times 2 \times 11 = 44$

d) Halve 24 twice. $24 \div 2 \div 2 = 6$

Lesson	**30** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L26, [2]: L27, [3]: L28, [4]: L29.		

<Mental Maths>

a) 7 × 4 = 28 b) 7 × 5 = 35 c) 7 × 6 = 42

d) 9 × 6 = 54 e) 9 × 8 = 72

<Homework>

*No homework.

L30: Review

[1] What is the length of a square if the area is:

a) 49? 7 b) 100? 10

[2] Fill in the blanks.

a)

b)

[3]

a) Double 8. $2 \times 8 = 16$

b) Square 3. $3 \times 3 = 9$

c) Double 12 twice. $2 \times 2 \times 12 = 48$

d) Halve 40 twice. $40 \div 2 \div 2 = 10$

[4] Fill in the blanks.

a) 6 × 7 = 5 × 7 + 1 × 7

b) 7 × 8 = 4 × 8 + 3 × 8

Lesson	**31** /120	Curriculum	B4.1.2.1.1 (p.12) e.g.1-4
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to solve multiplication whose multiplicand or multipliers are more 11 or 12.		
Introduction (sample)	• Invite 3 learners and let them find the answer for 5 × 12. Learner A draws and counts the number of circles. Learner B add 12 + 12 + 12 + 12 + 12. Learner C calculate by 5 × 10 + 5 × 2. Discuss which one is faster and accurate. (C is faster and accurate.)		
Teacher's Note	• By decomposing numbers, learners can multiply numbers more than 10. Learners do NOT have to memorise multiplication more than 10. • In the introduction, learners will find the method of learner C is fast and accurate. It is important for learners to realise why they have to memorise multiplication table.		

<Mental Maths>

a) 20 × 2 = 40 b) 20 × 5 = 100 c) 20 × 8 = 160

d) 30 × 4 = 120 e) 30 × 7 = 210

<Homework>

Solve:

a) 7 × 12 = 84

b) 11 × 6 = 66

c) 11 × 11 = 121

Decompose to make 10 and a single-digit number.

L31: Multiplication more than 9 × 9

6 × 12 = 6 × 10 + 6 × 2

= 60 + 12 = 72

[1A] Fill in the blanks and find the answer.

a) 7 × 11 = 7 × 10 + 7 × 1

= 70 + 7 = 77

b) 12 × 5 = 10 × 5 + 2 × 5

= 50 + 10 = 60

[1B] Solve:

a) 5 × 11 = 5 × 10 + 5 × 1

= 50 + 5 = 55

b) 12 × 7 = 10 × 7 + 2 × 7

= 70 + 14 = 84

[2A] Answer as [1A].

a) 11 × 8 = 10 × 8 + 1 × 8

= 80 + 8 = 88

b) 12 × 11 = 10 × 11 + 2 × 11

= 110 + 22 = 132

[2B] Solve:

a) 8 × 12 = 8 × 10 + 8 × 2

= 80 + 16 = 96

b) 9 × 11 = 9 × 10 + 9 × 1

= 90 + 9 = 99

c) 12 × 9 = 10 × 9 + 2 × 9

= 90 + 18 = 108

d) 12 × 12 = 12 × 10 + 12 × 2

= 120 + 24 = 144

[R] Fill in the blanks.

a) 7 × 8 = 6 × 8 + 1 × 8

b) 8 × 8 = 5 × 8 + 3 × 8

c) 9 × 9 = 9 × 2 + 9 × 7

Lesson	**32** /120	Curriculum	B4.1.2.2.1 (p.15) e.g.1,2
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Be able to solve division by multiplication.		
Introduction (sample)	• Let learners remember the relationship between multiplication and division by 3 × 4 as shown on the board.		
Teacher's Note	• [2B] is to understand the relationship between the multiples of 9 and 10. Since the task is of high difficulty, it will likely to be challenging for many learners. • Learners need to memorise the multiplication table up to 9 × 9 for finding answers to division.		

<Mental Maths>

a) 20 × 3 = 60 b) 20 × 6 = 120 c) 20 × 9 = 180

d) 30 × 5 = 150 e) 30 × 8 = 240

<Homework>

Answer as [1A].

a) 28 ÷ 7 7 × 4 = 28 28 ÷ 7 = 4

b) 35 ÷ 5 5 × 7 = 35 35 ÷ 5 = 7

c) 54 ÷ 6 6 × 9 = 54 54 ÷ 6 = 9

d) 63 ÷ 9 9 × 7 = 63 63 ÷ 9 = 7

Find this by 3×1 = 3, 3×2 = 6, 3×3 = 9, 3×4 = 12.

L32: Solve division by multiplication

12 ÷ 3

3 × 4 = 12 12 ÷ 3 = 4

[1A] Fill in the blanks and write the answers.

a) 20 ÷ 4 4 × 5 = 20 20 ÷ 4 = 5

b) 56 ÷ 8 8 × 7 = 56 56 ÷ 8 = 7

[1B] Solve:

a) 35 ÷ 7 = 5 b) 63 ÷ 7 = 9

c) 72 ÷ 9 = 8 d) 81 ÷ 9 = 9

[2A] Answer as [1A].

a) 32 ÷ 8 8 × 4 = 32 32 ÷ 8 = 4

b) 48 ÷ 6 6 × 8 = 48 48 ÷ 6 = 8

c) 54 ÷ 9 9 × 6 = 54 54 ÷ 9 = 6

d) 64 ÷ 8 8 × 8 = 64 64 ÷ 8 = 8

This task is an application of L29.

[2B] Fill in the blanks.

a) 9 × 9 = 10 × 9 − 9 = 81

b) 9 × 5 = 10 × 5 − 5 = 45

c) 9 × 8 = 10 × 8 − 8 = 72

[R] Fill in the blanks and find the answer.

a) 12 × 8 = 10 × 8 + 2 × 8

= 80 + 16 = 96

b) 9 × 12 = 9 × 10 + 9 × 2

= 90 + 18 = 108

Lesson	**33** /120	Curriculum	B4.1.2.2.2 (p.16) e.g.2,3
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Understand strategies to solve multiplication effectively.		
Introduction (sample)	• Show how to solve 24 × 5 and 25 × 16 as shown on the board. Explain step by step.		
Teacher's Note	• Halving is important in [1]. • Making 2 × (multiples of 5) is important in this lesson.		

<Mental Maths>

a) 20 × 4 = 80 b) 20 × 7 = 140 c) 30 × 3 = 90

d) 30 × 6 = 180 e) 30 × 9 = 270

<Homework>

Solve:

a) 44 × 5 = 220 b) 5 × 28 = 140

c) 18 × 25 = 450 d) 35 × 16 = 560

Make 2 by decomposing even number.

L33: Understand multiplication strategies

24 × 5 = 12 × 2 × 5

= 12 × 10 = 120

25 × 16 = 25 × 2 × 8

= 50 × 8 = 400

[1A] Fill in the blanks.

a) 26 × 5 = 13 × 2 × 5

= 13 × 10 = 130

b) 5 × 24 = 5 × 2 × 12

= 10 × 12 = 120

[1B] Solve:

a) 12 × 15 = 6 × 2 × 15

= 6 × 30 = 180

b) 25 × 14 = 25 × 2 × 7

= 50 × 7 = 350

[2A] Answer as [1A].

46 × 5 = 23 × 2 × 5

= 23 × 10 = 230

[2B] Solve:

a) 5 × 48 = 5 × 2 × 24

= 10 × 24 = 240

b) 14 × 15 = 7 × 2 × 15

= 7 × 30 = 210

c) 35 × 18 = 35 × 2 × 9

= 70 × 9 = 630

d) 12 × 25 = 6 × 2 × 25

= 6 × 50 = 300

[R] Fill in the blanks.

a) 30 ÷ 6 6 × 5 = 30 30 ÷ 6 = 5

b) 72 ÷ 9 9 × 8 = 72 72 ÷ 9 = 8

Lesson	**34** /120	Curriculum	B4.1.2.2.2 (p.16) e.g.1; B4.1.2.3.1 (p.23) e.g. 1-3
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Understand the relaionship between the number of 0s when multiplying the multiples of 10s, 100s and 1000s.		
Introduction (sample)	• Show how to solve tasks as shown on the board. Let learners find the rule and copy it.		
Teacher's Note	• This knowledge is also important for money. If there are four ¢300 items, the total cost is ¢1,200. • This lesson is preparation for box method. • The most important point is the number of 0 (e.g. in 80 × 300, 80 has one and 300 has two zeros, the answer has three zeros after 8 × 3.)		

<Mental Maths>

a) 40 × 4 = 160 b) 40 × 7 = 280 c) 50 × 5 = 250

d) 50 × 8 = 400 e) 60 × 7 = 420

<Homework>

Solve:

a) 3 × 80 = 240 b) 80 × 5 = 400

c) 30 × 300 = 9,000 d) 700 × 30 = 21,000

e) 200 × 200 = 40,000

Hide zeros and add them to the answer.

L34: Multiply the multiples of 10s, 100s and 1000s.

4 × 30 = 120 80 × 30 = 2,400

200 × 30 = 6,000 50 × 300 = 15,000

Check the number of zero.

[1A] Solve:

a) 4 × 20 = 80 b) 50 × 7 = 350

c) 2 × 300 = 600

d) 400 × 3 = 1,200

e) 6 × 7,000 = 42,000

f) 60 × 80 = 4,800

g) 70 × 500 = 35,000

[2A] Solve:

a) 4 × 80 = 320 b) 60 × 5 = 300

c) 20 × 400 = 8,000

d) 600 × 30 = 18,000

e) 200 × 300 = 60,000

f) 300 × 300 = 90,000

[2B] Expand the numbers.

a) 432 = 400 + 30 + 2

b) 549 = 500 + 40 + 9

c) 873 = 800 + 70 + 3

This task is preparation for box method.

[R] Solve:

a) 84 × 5 = 42 × 2 × 5
= 42 × 10 = 420

b) 5 × 68 = 5 × 2 × 34
= 10 × 34 = 340

c) 45 × 16 = 45 × 2 × 8
= 90 × 8 = 720

Lesson	**35** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L31, [2]: L32, [3]: L33, [4]: L34.		

<Mental Maths>

a) 50 × 7 = 350 b) 60 × 6 = 360 c) 70 × 8 = 560

d) 80 × 8 = 640 e) 90 × 9 = 810

<Homework>

*No homework.

L35: Review

[1] Fill in the blanks and find the answer.

a) 7 × 12 = 7 × 10 + 7 × 2

= 70 + 14 = 84

b) 12 × 12 = 11 × 10 + 11 × 2

= 110 + 22 = 132

[2] Fill in the blanks.

a) 24 ÷ 8 8 × 3 = 24 24 ÷ 8 = 3

b) 42 ÷ 6 6 × 7 = 42 42 ÷ 6 = 7

c) 56 ÷ 7 7 × 8 = 56 56 ÷ 7 = 8

d) 81 ÷ 9 9 × 9 = 81 81 ÷ 9 = 9

[3] Fill in the blanks.

a) 28 × 5 = 14 × 2 × 5

= 14 × 10 = 140

b) 15 × 16 = 15 × 2 × 8

= 30 × 8 = 240

[4] Solve:

a) 40 × 7 = 280

b) 80 × 5 = 400

c) 50 × 300 = 15,000

d) 200 × 400 = 80,000

Lesson	**36** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.1
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Understand box method to solve (2 or 3-digit)×(1-digit) with no regrouping or regrouping once.		
Introduction (sample)	• Write the 12 × 4 = 48 as shown on the board. • Show how to solve 214 × 3 = 642 by box method as shown on the board.		
Teacher's Note	• Box method is a preparation for column method, the contents of Basic 5. • Box method is related to area of rectangle. • This lesson focus on (2-digit)×(1-digit) or (3-digit)×(1-digit) with no regrouping or regrouping once.		

<Mental Maths>

a) 40 × 5 = 200 b) 40 × 8 = 320 c) 50 × 6 = 300

d) 50 × 9 = 450 e) 60 × 8 = 480

<Homework>

Solve:

a) 124 × 2 = 248 b) 73 × 3 = 219

c) 127 × 4 = 508 d) 391 × 3 = 1,173

L36: Understand box method (1)

12 × 4 = 48

10	10	10	10	→ 4 × 10 = 40
2	2	2	2	→ 4 × 2 = 8

×	10	2	
4	40	8	→ 48

×	200	10	4	
3	600	30	12	→ 642

[1] Solve:

a)

×	20	3	
3	60	9	→ 69

b)

×	40	6	
2	80	12	→ 92

c)

×	100	20	3	
3	300	60	9	→ 369

d)

×	100	50	2	
4	400	200	8	→ 608

[2] Solve:

a)

×	20	4	
2	40	8	→ 48

b)

×	20	5	
3	60	15	→ 75

c) 42 × 3

×	40	2	
3	120	6	→ 126

d)

×	200	10	3	
3	600	30	9	→ 639

e)

×	300	60	4	
2	600	120	8	→ 728

f) 225 × 3

×	200	20	5	
3	600	60	15	→ 675

[R] Solve:

a) 30 × 200 = 6,000

b) 500 × 30 = 15,000

c) 200 × 400 = 80,000

Lesson	**37** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.1
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to solve (2 or 3-digit)×(1-digit) with regrouping more than once.		
Introduction (sample)	• Show how to solve the following by box method. a) 148 × 9 b) 374 × 6 × | 100 | 40 | 8 9 | 900 | 360 | 72 → 1,332 × | 300 | 70 | 4 6 | 1,800 | 420 | 24 → 2,244		
Teacher's Note	• This lesson focus on (2-digit)×(1-digit) or (3-digit)×(1-digit) with regrouping more than once.		

<Mental Maths>

a) 40 × 6 = 240 b) 40 × 9 = 360 c) 50 × 7 = 350

d) 60 × 6 = 360 e) 60 × 9 = 540

<Homework>

Solve:

a) 63 × 7 = 441 b) 73 × 6 = 438

c) 266 × 8 = 2,128 d) 482 × 9 = 4,338

L37: Understand box method (2)

[1] Solve:

a) 47 × 5

×	40	7	
5	200	35	→ 235

b) 23 × 8

×	20	3	
8	160	24	→ 184

c) 156 × 4

×	100	50	6	
4	400	200	24	→ 624

d) 381 × 4

×	300	80	1	
4	1,200	320	4	→ 1,524

e) 574 × 4

×	500	70	4	
4	2,000	280	16	→ 2,296

[2] Solve:

a) 64 × 7

×	60	4	
7	420	28	→ 448

b) 82 × 6

×	80	2	
6	480	12	→ 492

c) 254 × 8

×	200	50	4	
8	1,600	400	32	→ 2,032

d) 440 × 5

×	400	40	
5	2,000	200	→ 2,200

e) 389 × 7

×	300	80	9	
7	2,100	560	63	→ 2,723

f) 374 × 9

×	300	70	4	
9	2,700	630	36	→ 3,366

[R] Solve:

a)

×	30	2	
2	60	4	→ 64

b)

×	20	7	
3	60	21	→ 81

Lesson	**38** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.1
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Be able to solve (2-digit) × (2-digit) with no regrouping or regrouping once.		
Introduction (sample)	• Show how to solve 12 × 43 by box method. Explain step by step.		
Teacher's Note	• This lesson focus on (2-digit) × (2-digit) with no regrouping or regrouping once.		

<Mental Maths>

a) 50 × 8 = 400 b) 60 × 8 = 480 c) 70 × 7 = 490

d) 70 × 9 = 630 e) 80 × 9 = 720

<Homework>

Solve:

a) 13 × 13 = 169

b) 22 × 23 = 506

c) 33 × 32 = 1,056

L38: Understand box method (3)

×	10	2	
40	400	80	→ 480
3	30	6	→ 36
			516

[1] Solve:

a)

×	30	1	
10	300	10	→ 310
3	90	3	→ 93
			403

b)

×	20	4	
10	200	40	→ 240
2	40	8	→ 48
			288

c) 21 × 34

×	20	1	
30	600	30	→ 630
4	80	4	→ 84
			714

d) 32 × 14

×	30	2	
10	300	20	→ 320
4	120	8	→ 128
			448

[2A] Solve:

a) 14 × 12

×	10	4	
10	100	40	→ 140
2	20	8	→ 28
			168

b) 21 × 23

×	20	1	
20	400	20	→ 420
3	60	3	→ 63
			483

c) 24 × 42

×	20	4	
40	800	160	→ 960
2	40	8	→ 48
			1,008

d) 32 × 34

×	30	2	
30	900	60	→ 960
4	120	8	→ 128
			1,088

[2B] Kofi buys 12 bags of onions.
Each bag costs ¢42.
How much is the total cost?

12 × 42

×	10	2	
40	400	80	→ 480
2	20	4	→ 24
			504

The cost is ¢504.

[R] Solve:

a) 13 × 8 = 104 b) 93 × 3 = 279

c) 115 × 4 = 460 d) 325 × 3 = 975

Lesson	**39** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.1
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Be able to solve (2-digit) × (2-digit) whose sum is with regrouping more than once.		
Introduction (sample)	• Show how to solve the following by box method. a) 48 × 29 = 1,392 b) 74 × 46 = 3,404		
Teacher's Note	• This lesson focus on (2-digit) × (2-digit) with regrouping more than once.		

<Mental Maths>

a) 50 × 9 = 450 b) 60 × 9 = 540 c) 70 × 8 = 560

d) 80 × 8 = 640 e) 90 × 9 = 810

<Homework>

Solve:

a) 26 × 46 = 1,196 b) 37 × 58 = 2,146

L39: Understand box method (4)

[1] Solve:

a) 25 × 43

×	20	5	
40	800	200	→ 1,000
3	60	15	→ 75
			1,075

b) 32 × 48

×	30	2	
40	1,200	80	→ 1,280
8	240	16	→ 256
			1,536

c) 82 × 34

×	80	2	
30	2,400	60	→ 2,460
4	320	8	→ 328
			2,788

d) 52 × 93

×	50	2	
90	4,500	180	→ 4,680
3	150	6	→ 156
			4,836

[2] Solve:

a) 26 × 43

×	20	6	
40	800	240	→ 1,040
3	60	18	→ 78
			1,118

b) 32 × 48

×	30	2	
40	1,200	80	→ 1,280
8	240	16	→ 256
			1,536

c) 84 × 60

×	80	4	
60	4,800	240	→ 5,040

The ones place is omitted here because it is 0.

d) 71 × 54

×	70	1	
50	3,500	50	→ 3,550
4	280	4	→ 284
			3,834

e) 52 × 93

×	50	2	
90	4,500	180	→ 4,680
3	150	6	→ 156
			4,836

[R] Ama buys 22 boxes of potatoes.

Each box costs ¢32.

How much is the total cost?

22 × 32 = 704. The cost is ¢704.

Lesson	**40** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1] a) – c): L36, [1] d) – f) : L37, [1] g) – h) : L38, [1] i) : L39.		

<Mental Maths>

a) 50 × 6 = 300 b) 60 × 7 = 420 c) 70 × 7 = 490

d) 70 × 9 = 630 e) 80 × 9 = 720

<Homework>

*No homework.

L40: Review

[1] Solve:

a) 72 × 3

×	70	2	
3	210	6	→ 216

b) 65 × 7

×	60	5	
7	420	35	→ 455

c) 132 × 3

×	100	30	2	
3	300	90	6	→ 396

d) 217 × 4

×	200	10	7	
4	800	40	28	→ 868

e) 392 × 3

×	300	90	2	
3	900	270	6	→ 1,176

f) 364 × 8

×	300	60	4	
8	2,400	480	32	→ 2,912

g) 13 × 12

×	10	3	
10	100	30	→ 130
2	20	6	→ 26
			156

h) 46 × 21

×	40	6	
20	800	120	→ 920
1	40	6	→ 46
			966

i) 46 × 37

×	40	6	
30	1,200	180	→ 1,380
7	280	42	→ 322
			1,702

Lesson	**41** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.1
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Be able to solve word problems for multiplication.		
Introduction (sample)	• Write a number sentence for the following. There are 24 boxes. Each box contains 32 mangoes. How many mangoes are there altogether? No need to solve the number sentence. $24 \times 32 = 768$.		
Teacher's Note	• Writing a number sentece is important. • The calculation part (box method) is omitted in word problems.		

<Mental Maths>

a) 4 ÷ 2 = 2 b) 8 ÷ 2 = 4 c) 10 ÷ 2 = 5

d) 12 ÷ 3 = 4 e) 14 ÷ 2 = 7

<Homework>

Kwadwo sells 34 packs of eggs.

Each pack costs ¢42.

How much is the total cost?

$34 \times 42 = 1428$. ¢1,428.

This dotted line separates exercise part 1 and 2.
Write all the black parts up to this line in exercise part 1.

L41: Solve word problems of multiplication

[1A] There are 16 boxes.

Each box contains 15 oranges.

How many oranges are there altogether?

$16 \times 15 = 240$. 240 oranges.

[1B] Kwame cuts a rope into 28 pieces.

Each rope is 35cm.

How long rope does he need?

$28 \times 35 = 980$. 980 cm.

[2A] Afua sells 43 packs of eggs.

Each pack costs ¢34.

How much is the total cost?

$43 \times 34 = 1{,}462$. ¢1,462.

[2B] Correct the mistake.

67 × 36 = 2,~~5~~02 2,412

×	60	7	
30	1,800	210	→ 2,~~1~~00 2010
6	360	42	→ 402
			2,502

[R] Solve:

a) 24 × 36

×	20	4	
30	600	120	→ 720
6	120	24	→ 144
			864

b) 25 × 60

×	20	5	
60	1,200	300	→ 1,500

Skip review task if you don't have time.

Lesson	**42** /120	Curriculum	B4.1.2.4.1 (p.17) e.g.1,2
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Understand the meaning of divisible by 2, 3 and 5.		
Introduction (sample)	• Write the rule of divisible as shown on the board. • Explain if the following numbers are divisible by 2, 3 and 5. 75, 123, 250, 542 Divisible by 2. 250 and 542. Divisible by 5. 75 and 250 Divisible by 3. $7+5=12, 1+2+3=6, 2+5+0=7, 5+4+2=11.$ Hence, 75 and 123 is divisible by 3.		
Teacher's Note	• Explain the term "divisible". "12 is divisible by 3" means 12 is a multiple of 3. • Let learners use multiplication to find the answer for division. • To find if a number is divisible by 2 and 5, learners focus on the ones place, while a number is divisible by 3, we need to add all digits.		

<Mental Maths>

a) 6 ÷ 2 = 3 b) 8 ÷ 4 = 2 c) 10 ÷ 5 = 2

d) 12 ÷ 4 = 3 e) 14 ÷ 7 = 2

<Homework>

14, 65, 72, 120, 216, 325.

Answer as [1].

a) 2. 14, 72, 120, 216

b) 3. 72, 120, 216

c) 5. 65, 120, 325

Don't foget 9.

L42: Understand divisible (1)

A number is divisible by:

2 if the ones place is divisible by 2.

5 if the ones place is 5 or 0.

3 if the sum of all digits is a multiple of 3.

[1] 9, 24, 35, 56, 104, 220, 582.

Select the numbers divisible by:

a) 2. 24, 56, 104, 220, 582

b) 5. 35, 220

c) 3. $24 \rightarrow 2+4=6, 35 \rightarrow 3+5=8$

$56 \rightarrow 5+6=11, 104 \rightarrow 1+0+4=5$

$220 \rightarrow 2+2+0=4$

$582 \rightarrow 5+8+2=15$ 9, 24, 582

[2] 12, 44, 50, 81, 105, 328, 783.

Answer as [1].

a) 2. 12, 44, 50, 328

b) 5. 50, 105

c) 3. $12 \rightarrow 1+2=3, 44 \rightarrow 4+4=8$

$50 \rightarrow 5+0=5, 81 \rightarrow 8+1=9$

$105 \rightarrow 1+0+5=6$

$328 \rightarrow 3+2+8=13$

$783 \rightarrow 7+8+3=18$ 12, 81, 105, 783

[R] Solve:

a) 41 × 53

×	40	1	
50	2000	50	→ 2050
3	120	3	→ 123
			2173

b) 81 × 36

×	80	1	
30	2,400	30	→ 2,430
6	480	6	→ 486
			2,916

"as shown on the board" in the introduction part is written here. Let learners copy it during introduction time.

Lesson	**43** /120	Curriculum	B4.1.2.4.1 (p.17) e.g.1,2
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Understand the meaning of divisible by 2, 3 and 5.		
Introduction (sample)	• Write the rule of divisible as shown on the board. • Explain if the following numbers are divisible by 4. 423 644 1,167 1,432 The last two digits are 23, 44, 67 and 32, respectively. 44 and 32 are divisible by 4, hence 644 and 1,432 is divisible by 4.		
Teacher's Note	• To find if a number is divisible by 4, learners need to find the multiples of 4 up to 100 quickly using the pattern in [2B]. • In the homework, learners practise finding multiples of 4. Do not let them copy the answer of [1].		

<Mental Maths>

a) 6 ÷ 3 = 2 b) 9 ÷ 3 = 3 c) 12 ÷ 2 = 6

d) 12 ÷ 6 = 2 e) 15 ÷ 3 = 5

<Homework>

Write the multiples of 4 up to 100.

4	8	12	16	20
24	28	32	36	40
44	48	52	56	60
64	68	72	76	80
84	88	92	96	100

L43: Understand divisible (2)

A number is divisible by 4 if the last two digits form a multiple of 4.

[1] a) Write the multiples of 4 up to 100, with five numbers in each row.

4	8	12	16	20
24	28	32	36	40
44	48	52	56	60
64	68	72	76	80
84	88	92	96	100

Align 20, 40, 60, 80 and 100 vertically, increase by 4 horizontally.

b) Circle the numbers divisible by 4.

123, (456), 682, (3472)

[2A] 16, 64, 90, 156, 348, 785.

Select the numbers divisible by:

a) 4 16, 64, 156, 348

b) 3. $16 \rightarrow 1+6=7, 64 \rightarrow 6+4=10$

$90 \rightarrow 9+0=9, 156 \rightarrow 1+5+6=12$

$348 \rightarrow 3+4+8=15$

$785 \rightarrow 7+8+5=20$ 90, 156, 348

Let learners refer [1] to find the multiples.

[2B] What is the pattern in [1] if you see vertically?

The ones plces are the same in each column.

The tens place increased by 20.

[R] In [2A], select the number divisible by:

a) 2. 16, 64, 90, 156, 348

b) 5. 90, 785

Lesson	**44** /120	Curriculum	B4.1.2.5.1 (p.17) e.g.2
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Be able to solve division out of multiplication tables.		
Introduction (sample)	• Division is the inverse operation of multiplication. Use play money to show how to multiply: a) multiples of tens or hundreds, e.g. there are 6 of ¢20 notes, it is 6 × 20 = 120. Do other examples, 3 × 50 = 150, 3 × 200 = 600. b) 2-digit numbers without regrouping mentally, e.g. 12 × 3 = 36, 21 × 4 = 84 or 32 × 3 = 96.		
Teacher's Note	• This lesson is a preparation for long division. Learners need to use the knowledge of L34. Let learners find the rule, "hide 0 to find the answer".		

<Mental Maths>

a) 15 ÷ 5 = 3 b) 16 ÷ 8 = 2 c) 18 ÷ 6 = 3

d) 20 ÷ 5 = 4 e) 24 ÷ 3 = 8

<Homework>

Solve:

a) 420 ÷ 6 = 70 b) 640 ÷ 8 = 80

c) 300 ÷ 5 = 60 d) 600 ÷ 2 = 300

e) 22 ÷ 2 = 11 f) 36 ÷ 3 = 12

g) 64 ÷ 2 = 32 h) 93 ÷ 3 = 31

L44: Solve division out of 9×9

Hide 0 to find the answer.

[1] Solve:

a) 20 ÷ 2 = 10 b) 80 ÷ 4 = 20

c) 320 ÷ 4 = 80 d) 480 ÷ 6 = 80

e) 24 ÷ 2 = 12 f) 39 ÷ 3 = 13

g) 84 ÷ 4 = 21 h) 0 ÷ 3 = 0

If you divide zero items among three groups, each group gets zero.

[2] Solve:

a) 40 ÷ 2 = 20 b) 150 ÷ 3 = 50

c) 360 ÷ 6 = 60 d) 720 ÷ 8 = 90

e) 400 ÷ 5 = 80 f) 800 ÷ 2 = 400

g) 28 ÷ 2 = 14 h) 48 ÷ 4 = 12

i) 69 ÷ 3 = 23 j) 0 ÷ 5 = 0

[R] Circle the numbers divisible by 4?

124, 458, 582, 9856

Lesson	**45** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L41, [2]: L42, [3]: L43, [4]: L44.		

<Mental Maths>

a) 8 ÷ 2 = 4 b) 10 ÷ 2 = 5 c) 12 ÷ 3 = 4

d) 14 ÷ 2 = 7 e) 15 ÷ 5 = 3

<Homework>

*No homework.

L45: Review

[1] Akua sells 12 bags of onions.

Each bag costs ¢32.

How much is the total cost?

$12 \times 32 = 384$. ¢384.

[2] 9, 35, 56, 74, 240.

Select the numbers divisible by:

a) 2. 56, 74, 240

b) 5. 35, 240

c) 3. $3 + 5 = 8, 5 + 6 = 11$

$7 + 4 = 11, 2 + 4 + 0 = 6$. 9, 240

[3] Write the multiples of 4 from 61 up to 100.

64 68 72 76 80

84 88 92 96 100

[4] Solve:

a) 40 ÷ 4 = 10 b) 90 ÷ 3 = 30

c) 280 ÷ 4 = 70 d) 300 ÷ 5 = 60

e) 28 ÷ 2 = 14 f) 66 ÷ 3 = 22

Lesson	**46** /120	Curriculum	B4.1.2.5.1 (p.17) e.g.2
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to solve division with remainder.		
Introduction (sample)	• Ask, "there are 14 chocolates. Each child get 3 chocolates. How many children can get chocolates?". Present this question with a concrete material. • Write the number sentence 14 ÷ 3 = 4 R 2. Let learners know the remainder is shown by R. • Find the answer by 3 × __ . 3 × 3 = 9, 3 × 4 = 12, 3 × 5 = 15. Hence, the quotient is 4 and the remainder is 14 – 12 = 2. • Check the answer of division with remainder using multiplication. 14 ÷ 3 = 4 R 2 3 × 4 + 2 = 14		
Teacher's Note	• It is important to check the answer because it will help learners understand the relationship between the multiplication and division.		

<Mental Maths>

a) 16 ÷ 2 = 8 b) 18 ÷ 2 = 9 c) 18 ÷ 9 = 2

d) 21 ÷ 3 = 7 e) 24 ÷ 4 = 6

<Homework>

Answer as [1B].

a) 37 ÷ 4 = 9 R 2

$4 \times 9 + 2 = 36 + 2 = 38$, Wrong

b) 57 ÷ 8 = 7 R 2

$8 \times 7 + 2 = 56 + 2 = 58$, Wrong

L46: Division with remainder

[1A] Solve:

a) 33 ÷ 4 = 8 R 1 b) 16 ÷ 3 = 5 R 1

c) 30 ÷ 4 = 7 R 2 d) 66 ÷ 7 = 9 R 3

[1B] Check if the answer is correct.

a) 23 ÷ 4 = 5 R 3

$4 \times 5 + 3 = 20 + 3 = 23$, Correct

b) 23 ÷ 6 = 4 R 1

$6 \times 4 + 1 = 24 + 1 = 25$, Wrong

[2A] Solve:

a) 21 ÷ 4 = 5 R 1 b) 18 ÷ 7 = 2 R 4

c) 50 ÷ 8 = 6 R 2 d) 55 ÷ 7 = 7 R 6

[2B] Answer as [1B].

a) 25 ÷ 3 = 9 R 2

$3 \times 9 + 2 = 27 + 2 = 29$, Wrong

b) 46 ÷ 6 = 7 R 4

$6 \times 7 + 4 = 42 + 4 = 46$, Correct

c) 73 ÷ 8 = 8 R 7

$8 \times 8 + 7 = 64 + 7 = 71$, Wrong

[R] Solve:

a) 300 ÷ 5 = 60 b) 490 ÷ 7 = 70

c) 48 ÷ 2 = 24 d) 66 ÷ 3 = 22

Lesson	**47** /120	Curriculum	B4.1.2.5.1 (p.17) e.g.2
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Understand the algorithm of long division for (2-digit) ÷ (1-digit).		
Introduction (sample)	• Show how to solve 78 ÷ 3 and 96 ÷ 3 using long division as shown on the board. Solve them step by step with learners.		
Teacher's Note	• 78 ÷ 3 and 96 ÷ 3 is slightly different because the tens is divisible by 3, hence the subtraction result in 0. • 96 ÷ 3 = 32 was done in L44, it may be difficult for some learners without coulumn method, hence we teach this type of task again. • Long division is introduced in this lesson because it is used in the later part (B4.1.5.1).		

<Mental Maths>

a) 16 ÷ 4 = 4 b) 18 ÷ 3 = 6 c) 20 ÷ 4 = 5

d) 21 ÷ 7 = 3 e) 24 ÷ 6 = 4

<Homework>

Use long division to solve:

a) 57 ÷ 3 = 19

b) 90 ÷ 6 = 15

c) 91 ÷ 7 = 13

Zero is omitted here.

L47: Understand long division (1)

```
  26          32
3|78        3|96
 6           9
 18          06
 18          06
  0           0
```

[1] Solve:

a)
```
  24
3|72
 6
 12
 12
  0
```

b)
```
  13
4|52
 4
 12
 12
  0
```

c)
```
  14
6|84
 6
 24
 24
  0
```

d)
```
  23
3|69
 6
  9
  9
  0
```

[2] Solve:

a)
```
  38
2|76
 6
 16
 16
  0
```

b)
```
  24
4|96
 8
 16
 16
  0
```

c)
```
  18
3|54
 3
 24
 24
  0
```

d)
```
  12
6|72
 6
 12
 12
  0
```

e)
```
  12
4|48
 4
  8
  8
  0
```

f)
```
  23
3|69
 6
  9
  9
  0
```

[R] Solve:

a) 25 ÷ 4 = 6 R 1 b) 19 ÷ 7 = 2 R 5

c) 43 ÷ 8 = 5 R 3 d) 60 ÷ 7 = 8 R 4

Lesson	**48** /120	Curriculum	B4.1.2.5.1 (p.17) e.g.2
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Understand the algorithm of long division for (3-digit) ÷ (1-digit).		
Introduction (sample)	• Show how to solve 735 ÷ 5 and 492 ÷ 4 using long division as shown on the board.		
Teacher's Note	• This lesson focus on (3-digit) ÷ (1-digit) = (3-digit). • Let learners align the place value (HTO structure) but HTO is omitted on the board.		

<Mental Maths>

a) 24 ÷ 8 = 3 b) 27 ÷ 9 = 3 c) 30 ÷ 5 = 6

d) 32 ÷ 8 = 4 e) 36 ÷ 4 = 9

<Homework>

Use long division to solve:

a) 258 ÷ 3 = 86 b) 252 ÷ 6 = 42

c) 511 ÷ 7 = 73 d) 522 ÷ 9 = 58

Zero is omitted here.

L48: Understand long division (2)

$$\begin{array}{r} 147 \\ 5\overline{)735} \\ 5 \\ \hline 23 \\ 20 \\ \hline 35 \\ 35 \\ \hline 0 \end{array} \qquad \begin{array}{r} 123 \\ 4\overline{)492} \\ 4 \\ \hline 09 \\ 8 \\ \hline 12 \\ 12 \\ \hline 0 \end{array}$$

[1] Solve:

a) $\begin{array}{r} 126 \\ 4\overline{)504} \\ 4 \\ \hline 10 \\ 8 \\ \hline 24 \\ 24 \\ \hline 0 \end{array}$ b) $\begin{array}{r} 136 \\ 6\overline{)816} \\ 6 \\ \hline 21 \\ 18 \\ \hline 36 \\ 36 \\ \hline 0 \end{array}$

c) 432 ÷ 2 $\begin{array}{r} 216 \\ 2\overline{)432} \\ 4 \\ \hline 3 \\ 2 \\ \hline 12 \\ 12 \\ \hline 0 \end{array}$

[2] Solve:

a) $\begin{array}{r} 135 \\ 3\overline{)405} \\ 3 \\ \hline 10 \\ 9 \\ \hline 15 \\ 15 \\ \hline 0 \end{array}$ b) $\begin{array}{r} 117 \\ 6\overline{)702} \\ 6 \\ \hline 10 \\ 6 \\ \hline 42 \\ 42 \\ \hline 0 \end{array}$

c) 768 ÷ 3 $\begin{array}{r} 256 \\ 3\overline{)768} \\ 6 \\ \hline 16 \\ 15 \\ \hline 18 \\ 18 \\ \hline 0 \end{array}$ d) 657 ÷ 3 $\begin{array}{r} 219 \\ 3\overline{)657} \\ 6 \\ \hline 5 \\ 3 \\ \hline 27 \\ 27 \\ \hline 0 \end{array}$ e) 848 ÷ 4 $\begin{array}{r} 212 \\ 4\overline{)848} \\ 8 \\ \hline 4 \\ 4 \\ \hline 8 \\ 8 \\ \hline 0 \end{array}$

[R] Solve.

a) $\begin{array}{r} 12 \\ 7\overline{)84} \\ 7 \\ \hline 14 \\ 14 \\ \hline 0 \end{array}$ b) $\begin{array}{r} 39 \\ 2\overline{)78} \\ 6 \\ \hline 18 \\ 18 \\ \hline 0 \end{array}$ c) $\begin{array}{r} 23 \\ 3\overline{)69} \\ 6 \\ \hline 9 \\ 9 \\ \hline 0 \end{array}$

Lesson	**49** /120	Curriculum	B4.1.2.5.1 (p.17) e.g.2
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Understand the algorithm of long division in special cases.		
Introduction (sample)	• Show how to solve 384 ÷ 4 and 276 ÷ 3 = 92 using long division as shown on the board. There is no number in the hundred place.		
Teacher's Note	• This lesson focuses on (3-digit)÷(1-digit) = (2-digit) where the tens is not zero ([1] a) and b)) or the tens is zero ([1] c) and d)).		

<Mental Maths>

a) 25 ÷ 5 = 5 b) 28 ÷ 4 = 7 c) 30 ÷ 6 = 5

d) 35 ÷ 5 = 7 e) 36 ÷ 6 = 6

<Homework>

Use long division to solve:

a) 448 ÷ 8 = 56 b) 231 ÷ 3 = 77

c) 366 ÷ 6 = 61 d) 357 ÷ 7 = 51

L49: Understand long division (3)

```
    96          92
4 | 384     3 | 276
    36          27
    ---         ---
     24          06
     24          06
     --          --
      0           0
```

[1] Solve:

a)
```
    54
3 | 162
    15
    --
     12
     12
     --
      0
```

b)
```
    59
4 | 236
    20
    --
     36
     36
     --
      0
```

c)
```
    62
4 | 248
    24
    --
     08
     08
     --
      0
```

d)
```
    51
6 | 306
    30
    --
     06
     06
     --
      0
```

[2] Solve:

a) 255 ÷ 3 b) 325 ÷ 5 c) 544 ÷ 8

```
    85          65          68
3 | 255     5 | 325     8 | 544
    24          30          48
    --          --          --
     15          25          64
     15          25          64
     --          --          --
      0           0           0
```

d) 288 ÷ 4 e) 455 ÷ 5 f) 567 ÷ 7

```
    72          91          81
4 | 288     5 | 455     7 | 567
    28          45          56
    --          --          --
     08          05          07
     08          05          07
     --          --          --
      0           0           0
```

[R] Solve:

a)
```
    168
3 | 504
    3
    --
     20
     18
     --
      24
      24
      --
       0
```

b)
```
    126
6 | 756
    6
    --
     15
     12
     --
      36
      36
      --
       0
```

c)
```
    128
3 | 384
    3
    --
     08
     06
     --
      24
      24
      --
       0
```

Lesson	**50** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L46, [2] a), b): L47, [2] c), d): L48, [2] e), f): L49.		

<Mental Maths>

a) 8 ÷ 4 = 2 b) 10 ÷ 5 = 2 c) 12 ÷ 4 = 3

d) 14 ÷ 7 = 2 e) 16 ÷ 2 = 8

<Homework>

*No homework.

L50: Review

[1] Solve:

a) 13 ÷ 4 = 3 R 1 b) 22 ÷ 3 = 7 R 1

c) 27 ÷ 4 = 6 R 3 d) 70 ÷ 8 = 8 R 6

[2] Solve:

a) 51 ÷ 3

b) 84 ÷ 4

```
  17          21
3|51        4|84
 3           8
 21          4
 21          4
  0          0
```

c) 438 ÷ 3

d) 634 ÷ 2

```
  146         317
3|438       2|634
 3           6
 13          3
 12          2
  18         14
  18         14
   0          0
```

e) 276 ÷ 6

f) 248 ÷ 8

```
   46          31
6|276       8|248
 24          24
  36          8
  36          8
   0          0
```

Lesson	**51** /120	Curriculum	B4.1.2.6.1 (p.18) e.g.1,3,5
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Be able to distinguish operations (addition and multiplication).		
Introduction (sample)	• Ask the questions verbally and let learners write only the number sentence. 1. I put 3 mangoes in a bag. How many mangoes are in 5 bags? 2. I have 5 mangoes. I got 3 mangoes. How many mangoes do I have now? 3. 4 bofrots are in a bag. I bought 6 bags. How many bofrots do I have now? 4. I have 6 bofrots. My friend has 4 bofrots. How many bofrots are in total? The answers are 1. 5 × 3, 2. 5 + 3, 3. 6 × 4, and 4. 6 + 4.		
Teacher's Note	• In the introduction, let learners write the number sentence in their exercise books to make sure all the learners think about the number sentence.		

<Mental Maths>

a) 27 ÷ 3 = 9 b) 28 ÷ 7 = 4 c) 32 ÷ 4 = 8

d) 35 ÷ 7 = 5 e) 36 ÷ 9 = 4

<Homework>

A school has ¢371.
People donated ¢279 to the school.
How much does the school have?

371 + 279 = 650, ¢650.

Substitute 1-digit numbers to numbers in the sentence to find out the number sentences.

L51: Solve word problems (1)

[1A] Akosua bought a pack of meat for ¢340 and a pack of fish for ¢230. How much are they in total?

340 + 230 = 570, ¢570

[1B] There are 12 mangoes in a box. How many mangoes are in 63 boxes?

63 × 12

×	60	3	
10	600	30	→ 630
2	120	6	→ 126
			756

756 mangoes

[2A] A school has ¢481. People donated ¢359 to the school. How much does the school have?

481 + 359

$$\begin{array}{r} {\scriptstyle 1\ \ 1\ \ } \\ 4\ 8\ 1 \\ +\ 3\ 5\ 9 \\ \hline 8\ 4\ 0 \end{array}$$

¢840.

[2B] There are 3 chickens in a cage. How many chickens are in 231 cages?

231 × 3

×	200	30	1	
3	600	90	3	→ 693

693 chickens

[R] Solve:

a) $3\overline{)204}$ = 68 (18, 24, 24, 0)

b) $6\overline{)318}$ = 53 (30, 18, 18, 0)

c) $8\overline{)328}$ = 41 (32, 8, 8, 0)

Lesson	**52** /120	Curriculum	B4.1.2.6.1 (p.18) e.g.2,4,5
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to distinguish operations (subtraction and division).		
Introduction (sample)	• Ask the questions verbally and let learners write only the number sentence. 1. I shared 8 lemons with 4 bags equally. How many lemons in a bag? 2. I had 8 lemons. I gave 4 lemons to Kofi. How many lemons do I have now? 3. I have 9 pens. I put 3 pens in a bag. How many bags do I need? 4. I have 9 pens. My brother has 3 pens. How many more pens do I have? The answers are 1. 8 ÷ 4, 2. 8 – 4, 3. 9 ÷ 3, and 4. 9 – 3.		
Teacher's Note	• Let learners substitute numbers to 1-digit number to find out the number sentences. For example, [1] can be changed to "Ama bought a pack of meat in ¢3. She paid ¢5." which makes easier to find number senteces.		

<Mental Maths>

a) 40 ÷ 5 = 8 b) 42 ÷ 7 = 6 c) 48 ÷ 6 = 8

d) 54 ÷ 6 = 9 e) 56 ÷ 8 = 7

<Homework>

There were 424 learners.

68 of them are absent today.

How many learners are there now?

424 – 68 = 356, 356 learners

L52: Solve word problems (2)

[1A] Ama bought a pack of meat for ¢240. She paid ¢300. How much is the change?

300 – 240 = 60, ¢60

[1B] There are 351 bananas.

We put 9 bananas in each bag.

How many bags do we need?

351 ÷ 9

$$\begin{array}{r} 39 \\ 9\overline{)351} \\ 27 \\ \hline 81 \\ 81 \\ \hline 0 \end{array}$$

39 bags.

[2A] There were 524 learners.

58 of them are absent today.

How many learners are there now?

524 – 58

$$\begin{array}{r} {\scriptstyle 4\ \ 11\ \ 14} \\ 5\ \ 2\ \ 4 \\ -\quad 5\ \ 8 \\ \hline 4\ \ 6\ \ 6 \end{array}$$

466 learners

[2B] Kofi shares 488 meat pies with 8 classes equally. How many meat pies does each class get?

488 ÷ 8

$$\begin{array}{r} 61 \\ 8\overline{)488} \\ 48 \\ \hline 8 \\ 8 \\ \hline 0 \end{array}$$

61 meat pies.

[R] There are 42 buses.

24 passengers are in each bus.

Find the number of passengers.

42 × 24

×	40	2	
20	800	40	→ 840
4	160	8	→ 168
			1,008

1,008 passengers.

Lesson	**53** /120	Curriculum	B4.1.3.1.1 (p.19) e.g.1-3
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Understand what the equivalent fraction is.		
Introduction (sample)	• Make a pair and distribute 3 pieces of paper strips to each pair. Let learners fold them once, twice and three times to make $\frac{1}{2}, \frac{1}{4}$, and $\frac{1}{8}$. Make sure to align the corners and fold the paper neatly. Let them draw lines along the fold. • Confirm the rule of equivalent fractions as shown on the board (both multiplication and division). Let learners find the rule. Confirm the relation by the folded paper.		
Teacher's Note	• You can make paper strips by cutting A4 papers vertically into 4 pieces. • This lesson focus on making equivalent fractions or simplifying fractions. The term, simplify, is not used in B4.		

<Mental Maths>

a) 40 ÷ 8 = 5 b) 45 ÷ 5 = 9 c) 48 ÷ 8 = 6

d) 54 ÷ 9 = 6 e) 63 ÷ 7 = 9

<Homework>

Answer as [1].

a) $\frac{1}{3} = \frac{3}{9}$ b) $\frac{1}{4} = \frac{4}{16}$ c) $\frac{4}{5} = \frac{12}{15}$

d) $\frac{5}{10} = \frac{1}{2}$ e) $\frac{4}{12} = \frac{1}{3}$ f) $\frac{6}{8} = \frac{3}{4}$

They are inverse relations.

They are visual representations of equivalent fractions.

L53: Understand equivalent fractions

$\frac{1}{4} = \frac{2}{8}$ (×2), $\frac{3}{4} = \frac{6}{8}$ (×2), $\frac{1}{2} = \frac{4}{8}$ (×4)

Multiply the same numbers.

$\frac{2}{8} = \frac{1}{4}$ (÷2), $\frac{6}{8} = \frac{3}{4}$ (÷2), $\frac{4}{8} = \frac{1}{2}$ (÷4)

Divide by the same numbers.

[1] Fill in the blanks.

a) $\frac{1}{3} = \frac{2}{6}$ b) $\frac{1}{4} = \frac{3}{12}$ c) $\frac{2}{3} = \frac{8}{12}$

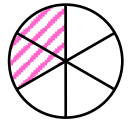
d) $\frac{4}{6} = \frac{2}{3}$ e) $\frac{3}{9} = \frac{1}{3}$ f) $\frac{10}{15} = \frac{2}{3}$

[2A] Answer as [1].

a) $\frac{1}{2} = \frac{3}{6}$ b) $\frac{1}{3} = \frac{5}{15}$

c) $\frac{8}{12} = \frac{2}{3}$ d) $\frac{12}{15} = \frac{4}{5}$

[2B] Colour the following as the fraction indicates.

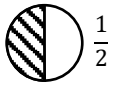
 $\frac{1}{3}$  $\frac{2}{6}$

[R] Akosua has 414 eggs.
She puts 6 eggs in each case.
How many cases does she need?

414 ÷ 6

$$\begin{array}{r} 69 \\ 6\overline{)414} \\ 36 \\ \hline 54 \\ 54 \\ \hline 0 \end{array}$$

69 cases

Lesson	**54** /120	Curriculum	B4.1.3.1.2 (p.20) e.g.1-4; B4.1.3.2.1. (p.23) e.g. 3
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Be able to compare the size of fractions by calculation.		
Introduction (sample)	• Show $\frac{1}{2}$ and $\frac{2}{6}$. Ask which is bigger. Show which is bigger by drawing it.  $\frac{1}{2}$  $\frac{2}{6}$ $\frac{1}{2}=\frac{3}{6}$, hence $\frac{1}{2}$ is bigger • Confirm that we need to make the denominators the same to compare fractions as shown on the board.		
Teacher's Note	• This lesson focus on comparing fractions with different denominators by calculation (without drawing line segments). • Find the common factors of the denominators is important.		

<Mental Maths>

a) 42 ÷ 6 = 7 b) 45 ÷ 9 = 5 c) 49 ÷ 7 = 7

d) 56 ÷ 7 = 8 e) 63 ÷ 9 = 7

<Homework>

Answer as [1B].

a) $\frac{1}{3}, \frac{1}{4}, \frac{1}{6}$

$\frac{4}{12}, \frac{3}{12}, \frac{2}{12}$

$\frac{1}{6}, \frac{1}{4}, \frac{1}{3}$

b) $\frac{3}{4}, \frac{1}{2}, \frac{4}{5}$

$\frac{15}{20}, \frac{10}{20}, \frac{16}{20}$

$\frac{1}{2}, \frac{3}{4}, \frac{4}{5}$

Comparing and ordering are related concept because when you order numbers, you need to compare each other.

L54: Make equivalent fractions

Make the denominators the same to compare fractions.

[1A] Write <, > or =.

a) $\frac{3}{8} < \frac{1}{2}$ $\frac{4}{8}$

b) $\frac{2}{4} = \frac{4}{8}$ $\frac{4}{8}$

d) $\frac{1}{2} > \frac{1}{3}$ $\frac{3}{6}$ $\frac{2}{6}$

e) $\frac{2}{3} < \frac{3}{4}$ $\frac{8}{12}$ $\frac{9}{12}$

[1B] Order from small to big.

$\frac{1}{2}, \frac{1}{4}, \frac{1}{8}$ $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}$

$\frac{4}{8}, \frac{2}{8}$

[2A] Answer as [1A].

a) $\frac{1}{3} > \frac{2}{9}$ $\frac{3}{9}$

b) $\frac{3}{12} = \frac{1}{4}$ $\frac{3}{12}$

c) $\frac{4}{6} < \frac{4}{5}$ $\frac{20}{30}$ $\frac{24}{30}$

d) $\frac{2}{6} < \frac{3}{8}$ $\frac{8}{24}$ $\frac{9}{24}$

[2B] Order from big to small.

a) $\frac{3}{4}, \frac{1}{2}, \frac{7}{8}$

$\frac{6}{8}, \frac{4}{8}$

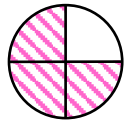
$\frac{7}{8}, \frac{3}{4}, \frac{1}{2}$

b) $\frac{1}{2}, \frac{1}{4}, \frac{1}{3}$

$\frac{6}{12}, \frac{3}{12}, \frac{4}{12}$

$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$

[R] Colour the following as the fraction indicates.

 $\frac{3}{4}$  $\frac{6}{8}$

Lesson	**55** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L51, [2]: L52, [3]: L53, [4]: L54.		

<Mental Maths>

a) 9 ÷ 3 = 3 b) 12 ÷ 2 = 6 c) 12 ÷ 6 = 2

d) 15 ÷ 3 = 5 e) 16 ÷ 4 = 4

<Homework>

*No homework.

L55: Review

[1] There are 511 mangoes.
We put 7 mangoes into a bag.
How many bags do you need?

511 ÷ 7

$$\begin{array}{r} 73 \\ 7\overline{)511} \\ 49 \\ \hline 21 \\ 21 \\ \hline 0 \end{array}$$

73 bags.

[2] There are 12 eggs in a tray.
How many eggs are in 26 trays?

×	20	6	
10	200	60	→ 260
2	40	12	→ 52
			312

312 eggs.

[3] Fill in the blanks.

a) $\frac{1}{3} = \frac{3}{9}$ b) $\frac{1}{4} = \frac{5}{20}$

c) $\frac{3}{6} = \frac{1}{2}$ d) $\frac{6}{15} = \frac{2}{5}$

[4] Write <, > or =.

a) $\frac{1}{3} > \frac{1}{6}$ ($\frac{2}{6}$) b) $\frac{5}{15} < \frac{2}{5}$ ($\frac{6}{15}$)

c) $\frac{3}{6} = \frac{2}{4}$ ($\frac{6}{12}$ $\frac{6}{12}$) d) $\frac{3}{10} > \frac{4}{15}$ ($\frac{9}{30}$ $\frac{8}{30}$)

Lesson	**56** /120	Curriculum	B4.1.3.1.4 (p.22) e.g.1; B4.1.3.2.1 (p.23) e.g.1, 2
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Understand improper fraction and mixed fraction visually.		
Introduction (sample)	• Draw a number line as shown on the board. Then, teach the terms, improper and mixed fractions.		
Teacher's Note	• The length of the tapes are not necessarily the real length. • In this lesson, let learners convert mixed and improper fractions by comparing them visually. Converting them by calculation will be taught in B5.		

<Mental Maths>

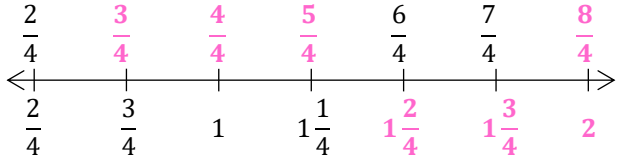
a) 24 ÷ 8 = 3 b) 27 ÷ 9 = 3 c) 30 ÷ 5 = 6

d) 64 ÷ 8 = 8 e) 81 ÷ 9 = 9

<Homework>

Answer as [1A].

Improper fraction

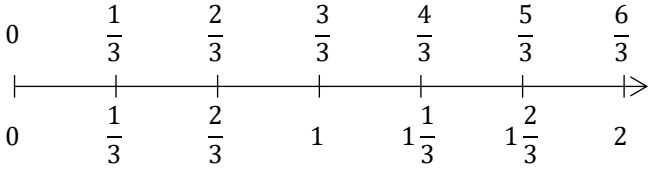


Mixed fraction

Refer these number lines in [2B].

L56: Improper and mixed fractions

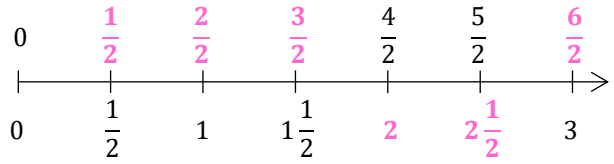
Improper fraction



Mixed fractions

[1A] Fill in the blanks.

Improper fraction



Mixed fraction

[1B] Show the shaded part in both improper and mixed fractions.

$\frac{7}{4}, 1\frac{3}{4}$

[2A] Answer as [1B].

a)

$\frac{3}{2}, 1\frac{1}{2}$

b)

$\frac{7}{3}, 2\frac{1}{3}$

[2B] Convert the improper fractions to mixed fractions and vice versa.

a) $\frac{2}{2} = 1$ b) $\frac{4}{3} = 1\frac{1}{3}$

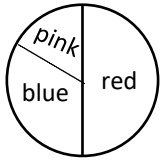
c) $2 = \frac{6}{3}$ d) $1\frac{2}{3} = \frac{5}{3}$

[R] Write <, > or = to compare.

a) $\frac{2}{6} = \frac{1}{3}$ b) $\frac{3}{8} < \frac{2}{4}$ c) $\frac{4}{6} < \frac{3}{4}$

$\frac{2}{6}$ $\frac{4}{8}$ $\frac{8}{12}$ $\frac{9}{12}$

Lesson	**57** /120	Curriculum	B4.1.3.2.1 (p.23) e.g.3 ; B4.1.3.2.3 (p.24) e.g.1,3
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Understand that fractions are used in our daily life		
Introduction (sample)	• Ask "when do we see fraction in our daily life?", learners may answer sharing a cake, amount of liquid etc. • Then, draw a circle graph as on the right ($\frac{1}{2}, \frac{1}{3}, \frac{1}{6}$). 30 learners in a class. How many likes each colour? Find the number of learners by calculation. E.g."the learners who like red is $\frac{1}{2} = \frac{15}{30}$, blue is $\frac{1}{3} = \frac{10}{30}$, and pink is $\frac{1}{6} = \frac{5}{30}$.		
Teacher's Note	• Reading an analogue clock (B4.1.3.2.3, e.g. 2) appears in B4.3.3.3.1 in L113.		



<Mental Maths>

a) 24 ÷ 4 = 6 b) 25 ÷ 5 = 5 c) 28 ÷ 4 = 7

d) 30 ÷ 6 = 5 e) 72 ÷ 8 = 9

<Homework>

Akua had 60 eggs. $\frac{1}{3}$ of them were sold today and $\frac{2}{5}$ were sold yesterday. How many eggs:

a) were sold today? $\frac{1}{3} = \frac{20}{60}$, 20 eggs.

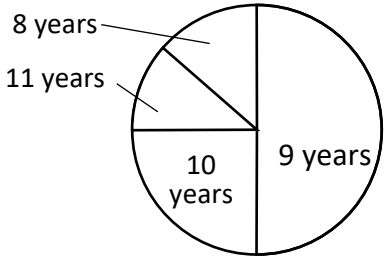
b) were sold yesterday? $\frac{2}{5} = \frac{24}{60}$, 24 eggs.

c) does she have now?

$60 - 20 - 24 = 16$, 16 eggs.

L57: Fractions in daily life

[1] There are 40 learners in a class.



a) Fill in the blank.

$\frac{1}{2} = \frac{20}{40}$, $\frac{1}{4} = \frac{10}{40}$, $\frac{1}{8} = \frac{5}{40}$

b) How many learners are

10 years old? $\frac{1}{4} = \frac{10}{40}$ 10 learners.

The denominators should be the whole.

[2] Kofi had 30 eggs.

Half of them were sold today and $\frac{1}{6}$ were sold yesterday.

How many eggs:

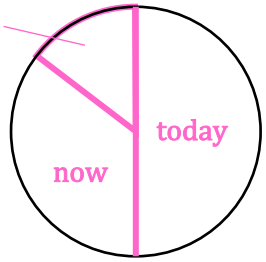
a) were sold today? $\frac{1}{2} = \frac{15}{30}$, 15 eggs.

b) were sold yesterday? $\frac{1}{6} = \frac{5}{30}$, 5 eggs.

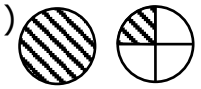
c) does Kofi have now?

$30 - 15 - 5 = 10$, 10 eggs.

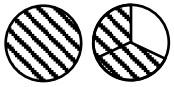
d) Draw the circle graph.



[R] Show the shaded part in both improper and mixed fractions.

a) 

$\frac{5}{4}$, $1\frac{1}{4}$

b) 

$\frac{5}{3}$, $1\frac{2}{3}$

Lesson	**58** /120	Curriculum	B4.1.3.2 (p.23)
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Be able to add fractions with the same denominators or one being a multiple of the other.		
Introduction (sample)	• Prepare five $\frac{1}{5}m$ strips (write $\frac{1}{5}m$ in each strip). Show two of them which is $\frac{2}{5}m$ and write $\frac{2}{5}$ under the strips. Add $\frac{1}{5}m$ strip and write "$+\frac{1}{5}$" under it. Then, find the total which is $\frac{3}{5}m$. • Let learners show how to solve addition and subtraction of common fractions as shown on the board.		
Teacher's Note	• Learners do not have to simplify the answer at this stage.		

<Mental Maths>

a) 24 ÷ 6 = 4 b) 27 ÷ 3 = 9 c) 28 ÷ 7 = 4

d) 32 ÷ 4 = 8 e) 72 ÷ 9 = 8

<Homework>

Solve:

a) $\frac{1}{5}+\frac{3}{5}=\frac{4}{5}$ b) $\frac{6}{7}-\frac{5}{7}=\frac{1}{7}$

c) $\frac{5}{10}+\frac{4}{10}=\frac{9}{10}$ d) $\frac{7}{12}-\frac{2}{12}=\frac{5}{12}$

e) $\frac{3}{7}+\frac{4}{7}=\frac{7}{7}$ f) $\frac{4}{4}-\frac{3}{4}=\frac{1}{4}$

L58: Add and subtract fractions

$\frac{2}{5}+\frac{1}{5}=\frac{3}{5}$ $\frac{4}{5}-\frac{1}{5}=\frac{3}{5}$

[1] Solve:

a) $\frac{1}{4}+\frac{2}{4}=\frac{3}{4}$ b) $\frac{2}{3}-\frac{1}{3}=\frac{1}{3}$

c) $\frac{1}{8}+\frac{2}{8}=\frac{3}{8}$ d) $\frac{4}{5}-\frac{1}{5}=\frac{3}{5}$

e) $\frac{4}{7}+\frac{3}{7}=\frac{7}{7}$ f) $\frac{6}{7}-\frac{4}{7}=\frac{2}{7}$

[2] Solve:

a) $\frac{2}{5}+\frac{2}{5}=\frac{4}{5}$ b) $\frac{3}{4}-\frac{2}{4}=\frac{1}{4}$

c) $\frac{3}{6}+\frac{1}{6}=\frac{4}{6}$ d) $\frac{5}{7}-\frac{3}{7}=\frac{2}{7}$

e) $\frac{2}{8}+\frac{6}{8}=\frac{8}{8}$ f) $\frac{9}{9}-\frac{3}{9}=\frac{6}{9}$

g) $\frac{3}{12}+\frac{5}{12}=\frac{8}{12}$ h) $\frac{11}{13}-\frac{6}{13}=\frac{5}{13}$

[R] Ama had 24 mangoes.

$\frac{1}{3}$ of them were sold today and

$\frac{1}{4}$ were sold yesterday.

How many mangoes:

a) were sold today? $\frac{1}{3}=\frac{8}{24}$, 8 mangoes.

b) were sold yesterday?

$\frac{1}{4}=\frac{6}{24}$, 6 mangoes.

c) does Ama have now?

$24-8-6=10$, 10 mangoes.

Lesson	**59** /120	Curriculum	B4.1.3.2 (p.23)
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Be able to add fractions with one of the denominators being a multiple of the other.		
Introduction (sample)	• Ask what is the answer for $\frac{1}{2}+\frac{1}{4}$. Let learners remember the previous lesson to find the condition to add fractions. Write it as shown on the board. • Draw a diagram to help learners understand as shown on the board.		
Teacher's Note	• Learners do not have to simplify the answer at this stage.		

<Mental Maths>

a) 32 ÷ 8 = 4 b) 36 ÷ 4 = 9 c) 40 ÷ 5 = 8

d) 42 ÷ 7 = 6 e) 48 ÷ 6 = 8

<Homework>

Solve:

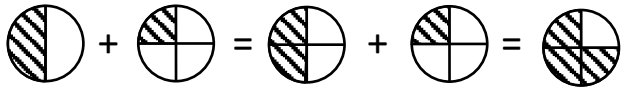
a) $\frac{7}{12}+\frac{1}{4}=\frac{10}{12}$ b) $\frac{4}{9}+\frac{1}{3}=\frac{7}{9}$

c) $\frac{3}{4}+\frac{1}{8}=\frac{7}{8}$ d) $\frac{3}{12}+\frac{2}{3}=\frac{11}{12}$

L59: Add fractions

Make the denominators the same to add fractions.

$$\frac{1}{2}+\frac{1}{4}=\frac{2}{4}+\frac{1}{4}=\frac{3}{4}$$



[1] Solve:

a) $\frac{1}{8}+\frac{1}{4}$

$=\frac{1}{8}+\frac{2}{8}=\frac{3}{8}$

b) $\frac{1}{9}+\frac{2}{3}$

$=\frac{1}{9}+\frac{6}{9}=\frac{7}{9}$

c) $\frac{3}{5}+\frac{3}{10}$

$=\frac{6}{10}+\frac{3}{10}=\frac{9}{10}$

d) $\frac{3}{4}+\frac{2}{12}$

$=\frac{9}{12}+\frac{2}{12}=\frac{11}{12}$

[2] Solve:

a) $\frac{1}{8}+\frac{1}{4}$

$=\frac{1}{8}+\frac{2}{8}=\frac{3}{8}$

b) $\frac{1}{3}+\frac{2}{9}$

$=\frac{3}{9}+\frac{2}{9}=\frac{5}{9}$

c) $\frac{3}{10}+\frac{2}{5}$

$=\frac{3}{10}+\frac{4}{10}=\frac{7}{10}$

d) $\frac{2}{3}+\frac{4}{15}$

$=\frac{10}{15}+\frac{4}{15}=\frac{14}{15}$

e) $\frac{5}{12}+\frac{2}{3}$

$=\frac{5}{12}+\frac{8}{12}=\frac{13}{12}$

f) $\frac{2}{5}+\frac{12}{20}$

$=\frac{8}{20}+\frac{12}{20}=\frac{20}{20}$

[R] Solve:

a) $\frac{3}{5}+\frac{1}{5}=\frac{4}{5}$ b) $\frac{5}{6}-\frac{3}{6}=\frac{2}{6}$

c) $\frac{4}{8}+\frac{4}{8}=\frac{8}{8}$ d) $\frac{10}{10}-\frac{3}{10}=\frac{7}{10}$

Lesson	**60** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L56, [2]: L57, [3]: L58, [4]: L59.		

<Mental Maths>

a) 16 ÷ 8 = 2 b) 18 ÷ 3 = 6 c) 18 ÷ 9 = 2

d) 20 ÷ 5 = 4 e) 21 ÷ 7 = 3

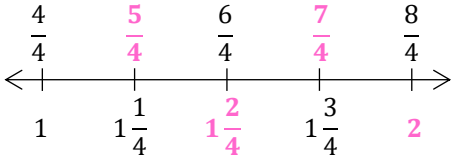
<Homework>

*No homework.

L60: Review

[1] Fill in the blanks.

Improper fraction



Mixed fraction

[2] Ama had 40 eggs.

$\frac{1}{5}$ were sold today.

How many eggs were sold today?

$\frac{1}{5} = \frac{8}{40}$, 8 eggs

[3] Solve:

a) $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$ b) $\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$

c) $\frac{3}{8} + \frac{2}{8} = \frac{5}{8}$ d) $\frac{7}{9} - \frac{3}{9} = \frac{4}{9}$

[4] Solve:

a) $\frac{5}{9} + \frac{1}{3}$

$= \frac{5}{9} + \frac{3}{9} = \frac{8}{9}$

b) $\frac{2}{4} + \frac{3}{8}$

$= \frac{4}{8} + \frac{3}{8} = \frac{7}{8}$

c) $\frac{1}{12} + \frac{1}{2}$

$= \frac{1}{12} + \frac{6}{12} = \frac{7}{12}$

Lesson	**61** /120	Curriculum	B4.1.3.2 (p.23)
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to subtract fractions with one of the denominators being a multiple of the other.		
Introduction (sample)	• Ask what is the answer for $\frac{1}{2}-\frac{1}{8}$. Let learners remember the previous lesson to find the condition to add fractions. Write it as shown on the board. • Draw a diagram to help learners understand as shown on the board.		
Teacher's Note	• Learners do not have to simplify the answer at this stage.		

<Mental Maths>

a) 35 ÷ 5 = 7 b) 36 ÷ 6 = 6 c) 40 ÷ 8 = 5

d) 45 ÷ 5 = 9 e) 48 ÷ 8 = 6

<Homework>

Solve:

a) $\frac{1}{3}-\frac{1}{6}=\frac{1}{6}$ b) $\frac{3}{4}-\frac{3}{8}=\frac{3}{8}$

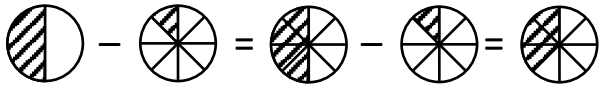
c) $\frac{11}{12}-\frac{3}{4}=\frac{2}{12}$ d) $\frac{2}{3}-\frac{3}{15}=\frac{7}{15}$

As a summary of the previous lessons, write both add and subtract.

L61: Subtract fractions

Make the denominators the same to add and subtract fractions.

$$\frac{1}{2}-\frac{1}{8}=\frac{4}{8}-\frac{1}{8}=\frac{3}{8}$$



[1] Solve:

a) $\frac{2}{3}-\frac{2}{9}$

$=\frac{6}{9}-\frac{2}{9}=\frac{4}{9}$

b) $\frac{3}{4}-\frac{1}{8}$

$=\frac{6}{8}-\frac{1}{8}=\frac{5}{8}$

c) $\frac{7}{10}-\frac{2}{5}$

$=\frac{7}{10}-\frac{4}{10}=\frac{3}{10}$

d) $\frac{4}{4}-\frac{5}{12}$

$=\frac{12}{12}-\frac{5}{12}=\frac{7}{12}$

[2] Solve:

a) $\frac{5}{6}-\frac{1}{3}$

$=\frac{5}{6}-\frac{2}{6}=\frac{3}{6}$

b) $\frac{3}{4}-\frac{3}{8}$

$=\frac{6}{8}-\frac{3}{8}=\frac{3}{8}$

c) $\frac{9}{12}-\frac{1}{4}$

$=\frac{9}{12}-\frac{3}{12}=\frac{6}{12}$

d) $\frac{2}{3}-\frac{7}{15}$

$=\frac{10}{15}-\frac{7}{15}=\frac{3}{15}$

e) $\frac{11}{12}-\frac{1}{3}$

$=\frac{11}{12}-\frac{4}{12}=\frac{7}{12}$

f) $\frac{3}{3}-\frac{7}{15}$

$=\frac{15}{15}-\frac{7}{15}=\frac{8}{15}$

[R] Solve:

a) $\frac{3}{9}+\frac{1}{3}$

$=\frac{3}{9}+\frac{3}{9}=\frac{6}{9}$

b) $\frac{5}{8}+\frac{1}{4}$

$=\frac{5}{8}+\frac{2}{8}=\frac{7}{8}$

c) $\frac{3}{5}+\frac{3}{10}$

$=\frac{6}{10}+\frac{3}{10}=\frac{9}{10}$

d) $\frac{3}{4}+\frac{3}{12}$

$=\frac{9}{12}+\frac{3}{12}=\frac{12}{12}$

Skip review task if you don't have time.

Lesson	**62** /120	Curriculum	B4.1.4.1.1 (p.25) e.g.1,2
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Understand decimal fractions of tenth.		
Introduction (sample)	• Draw a diagram to show the relationship between 0.1 and number lines as shown on the board. • By using the number line, ask verbally what is: a) 5 tenth? 0.5 b) 10 tenths? 1 c) 13 tenths? 1.3		
Teacher's Note	• This lesson introduces decimal fractions. Teach how to read 1.2, 0.5 etc. • Learners are familiar with ¢2.5 or 1.5L of water, utilise the knowledge. • This lesson focus on tenth (0.1).		

<Mental Maths>

a) 35 ÷ 7 = 5 b) 36 ÷ 9 = 4 c) 42 ÷ 6 = 7

d) 45 ÷ 9 = 5 e) 49 ÷ 7 = 7

<Homework>

What is:

a) 5 tenths? 0.5 b) 17 tenths? 1.7

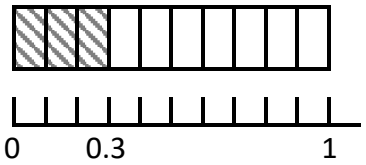
c) 26 tenths? 2.6 d) 30 tenths? 3

"as shown on the board" in the introduction part is written here. Let learners copy it during introduction time.

Let learners show the answer by drawing an arrow.

L62: Understand tenth

Tenth is 0.1 = $\frac{1}{10}$. 3 tenths is 0.3.

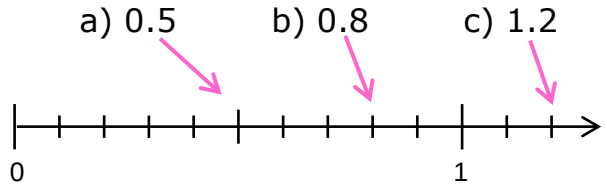


[1A] How many tenths (0.1) are in:

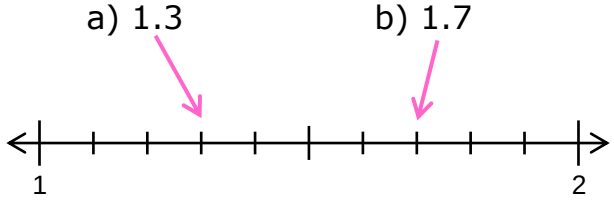
a) 0.5? 5 b) 1? 10

c) 1.2? 12

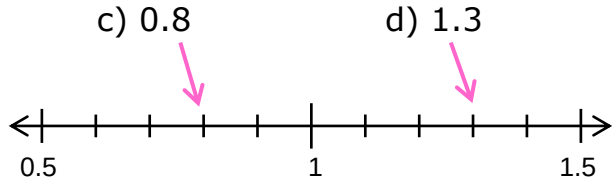
[1B] Find the number on the number line.



[2A] Answer as [1B].



On a number line, make the tick marks longer for round numbers like 1 and 2.



[2B] What is:

a) 4 tenths? 0.4 b) 15 tenths? 1.5

c) 23 tenths? 2.3 d) 40 tenths? 4

[R] Solve:

a) $\frac{2}{3} - \frac{1}{6} = \frac{3}{6}$ b) $\frac{7}{8} - \frac{1}{4} = \frac{5}{8}$

c) $\frac{11}{12} - \frac{1}{4} = \frac{8}{12}$ d) $\frac{3}{3} - \frac{8}{15} = \frac{7}{15}$

Write 4.0 as 4.

Lesson	**63** /120	Curriculum	B4.1.4.1.1 (p.25) e.g.2
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Understand decimal fractions of hundredth.		
Introduction (sample)	• Prepare 10×10 square. Assume each square is 0.01. • Colour a left-bottom cell to show 0.01. Colour the first column to show 0.1 (not 0.10). Colour the 5 squares of the second column to show 0.15. Continue colouring to show e.g. 0.23, 0.38 and 0.5 and 0.65. • Show the definition of hundredths, HTO structure and their application in daily life (e.g. money, measurement) as shown on the board.		
Teacher's Note	• In HTO structure, the tens place is shown in capital letter and tenths is shown in small letter. The same applies to the hundredths.		

<Mental Maths>

a) 54 ÷ 6 = 9 b) 56 ÷ 7 = 8 c) 63 ÷ 7 = 9

d) 64 ÷ 8 = 8 e) 72 ÷ 9 = 8

<Homework>

Answer as [1B].

a) 0.07? 7 b) 0.3? 30

c) 1.6? 160 d) 5.4? 540

L63: Understand hundredth (1)

hundredths: $0.01 = \frac{1}{100}$ $0.1 = 10 \times 0.01$

H	T	O		t	h
2	3	4	.	5	6

¢1 = 100pesewa, ¢0.01 = 1pesewa

1m = 100cm, 0.01m = 1cm

[1A] Fill in the blanks

a) ¢2.75 = ¢ 2 and 75 pesewa

b) 1.25m = 1 m 25 cm

c) ¢3 and 25 pesewa = ¢ 3.25

d) 235cm = 2.35 m

[1B] How many hundredths are in:

a) 0.03? 3 b) 0.1? 10

c) 1.3? 130

[2A] Fill in the blanks.

a) 2.87m = 287 cm

b) ¢0.75= 75 pesewa

c) 5.2m = 520 cm

d) 169cm = 1.69 m

e) 25 pesewa = ¢ 0.25

f) 170cm = 1.7 m

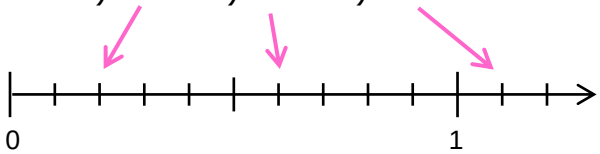
[2B] Answer as [1B].

a) 0.04? 4 b) 0.2? 20

c) 1.3? 130 d) 2.5? 250

[R] Find the number on the number line.

a) 0.2 b) 0.6 c) 1.1



Lesson	**64** /120	Curriculum	B4.1.4.1.1 (p.25) e.g.2
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Understand decimal fractions of hundredth.		
Introduction (sample)	• Draw a number line as shown on the board. Explain the relationship between the two number lines, i.e. 7.11, 7.12, …7.19 are between 7.1 and 7.2. • Count numbers on the number line.		
Teacher's Note	• Counting on the number line help learners understand relative size of decimal numbers.		

<Mental Maths>

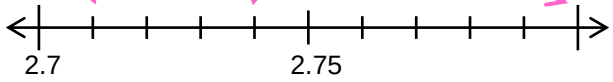
a) 54 ÷ 9 = 6 b) 56 ÷ 8 = 7 c) 63 ÷ 9 = 7

d) 72 ÷ 8 = 9 e) 81 ÷ 9 = 9

<Homework>

Answer as [1A].

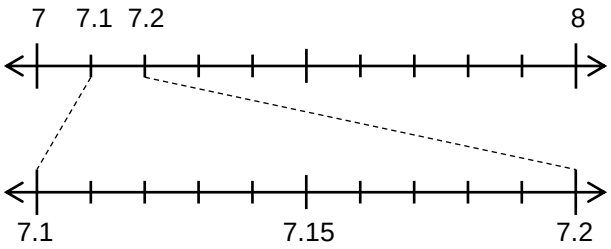
a) 2.71 b) 2.74 c) 2.8



Hundredth are in between tenth.

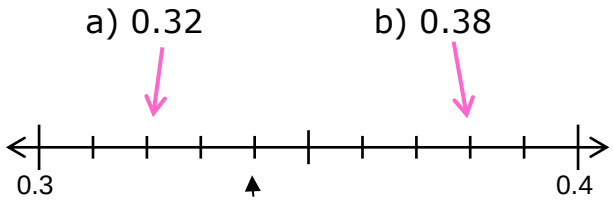
This dotted line separates exercise part 1 and 2.
Write all the black parts up to this line in exercise part 1.

L64: Understand hundredth (2)



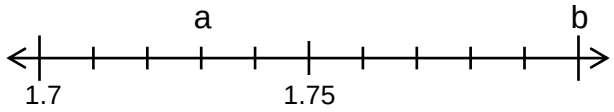
[1A] Show the number on the number line.

a) 0.32 b) 0.38



Show the answer by drawing an arrow.

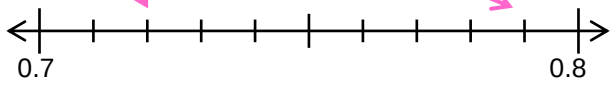
[1B] What is the value below?



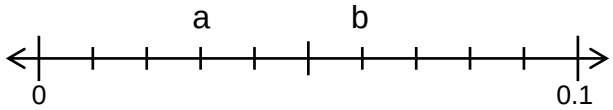
a) 1.73 b) 1.8

[2A] Answer as [1A].

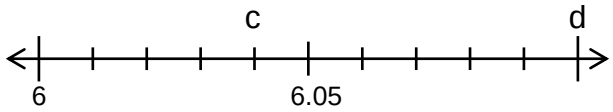
a) 0.72 b) 0.79



[2B] Answer as [1B].



a) 0.03 b) 0.06



c) 6.04 d) 6.1

[R] Fill in the blanks.

a) 3.47m = 347 cm

b) ¢0.65= 65 pesewa

c) 189cm = 1.89 m

d) 430 pesewa = ¢4.3

Lesson	**65** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L61, [2]: L62, [3]: L63, [4]: L64.		

<Mental Maths>

a) 18 ÷ 2 = 9 b) 18 ÷ 6 = 3 c) 20 ÷ 4 = 5

d) 21 ÷ 3 = 7 e) 24 ÷ 3 = 8

<Homework>

*No homework.

L65: Review

[1] Solve:

a) $\frac{3}{6}-\frac{1}{3}$

$=\frac{3}{6}-\frac{2}{6}=\frac{1}{6}$

b) $\frac{2}{4}-\frac{1}{8}$

$=\frac{4}{8}-\frac{1}{8}=\frac{3}{8}$

c) $\frac{11}{12}-\frac{2}{4}$

$=\frac{11}{12}-\frac{6}{12}=\frac{5}{12}$

[2] How many tenths are in:

a) 0.4? 4 b) 1? 10

c) 2.6? 26

[3] Fill in the blanks.

a) 1.47m = 1 m 47 cm

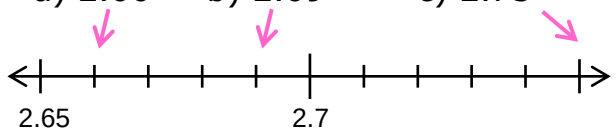
b) ¢0.25= 25 pesewa

c) 283cm = 2.83 m

d) 75 pesewa = ¢ 0.75

[4] Show the number on the number line.

a) 2.66 b) 2.69 c) 2.75



Lesson	**66** /120	Curriculum	B4.1.4.1.1 (p.25) e.g.2
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Be able to convert decimal fractions to common fractions and vice versa.		
Introduction (sample)	• Show how to convert decimal fractions to decimal fractions. Do not let learners copy these questions due to the time constraints. a) $0.5 = \frac{5}{10}$ b) $2.5 = \frac{25}{10}$ c) $0.07 = \frac{7}{100}$ d) $2.83 = \frac{283}{100}$ • Explain the relationship between decimal points and ×10 (÷10) as shown on the board.		
Teacher's Note	• The move of the decimal point is related to the topic of L62-L64. • Multiplying 10 (100) moves the decimal point 1 (2) places left. • Dividing by 10 (100) moves the decimal point 1 (2) places right.		

<Mental Maths>

a) 0.4 + 0.2 = 0.6 b) 0.3 + 0.4 = 0.7 c) 0.3 + 0.5 = 0.8

d) 0.6 – 0.4 = 0.2 e) 0.7 – 0.5 = 0.2

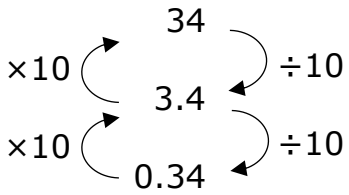
<Homework>

Answer as [1B].

a) $0.7 = \frac{7}{10}$ b) $2.9 = \frac{29}{10}$

c) $0.03 = \frac{3}{100}$ d) $2.46 = \frac{246}{100}$

L66: Convert to common fractions



× 10 moves decimal point right

÷ 10 moves decimal point left

[1A] Solve:

a) 0.03 × 10 = 0.3 b) 0.2 ÷ 10 = 0.02

c) 0.05 × 100 = 5

[1B] Convert to common fractions.

a) $0.3 = \frac{3}{10}$ b) $3.6 = \frac{36}{10}$

c) $0.05 = \frac{5}{100}$ d) $0.16 = \frac{16}{100}$

[2A] Answer as [1B].

a) $0.9 = \frac{9}{10}$ b) $1.7 = \frac{17}{10}$

c) $3.4 = \frac{34}{10}$ d) $0.07 = \frac{7}{100}$

e) $0.54 = \frac{54}{100}$ f) $1.34 = \frac{134}{100}$

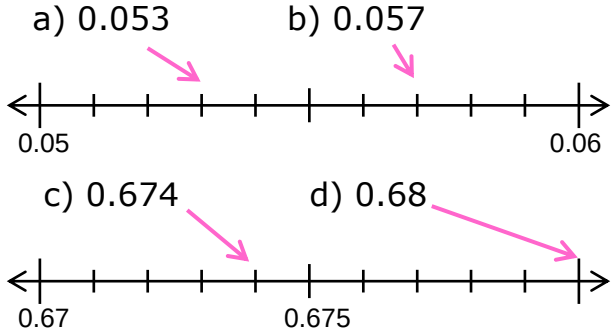
[2B] Solve:

a) 0.13 × 10 = 1.3

b) 2.7 ÷ 10 = 0.27

c) 0.15 × 100 = 15

[R] Show the numbers on the number line.



Lesson	**67** /120	Curriculum	B4.1.4.1.1 (p.25) e.g.2
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to convert decimal fractions to common fractions and vice versa.		
Introduction (sample)	• Show how to convert common fractions to decimal fractions. Do not let learners copy these questions due to the time constraints. a) $\frac{4}{10} = 0.4$ b) $\frac{13}{10} = 1.3$ c) $\frac{1}{5} = \frac{2}{10} = 0.2$ d) $\frac{26}{100} = 0.26$ e) $\frac{30}{100} = 0.3$ f) $\frac{11}{50} = \frac{22}{100} = 0.22$		
Teacher's Note	• If the hundredths place is 0, it should be omitted. 0.3 is good, but 0.30 is not good.		

<Mental Maths>

a) 0.3 + 0.3 = 0.6 b) 0.2 + 0.5 = 0.7 c) 0.2 + 0.6 = 0.8

d) 0.6 – 0.5 = 0.1 e) 0.7 – 0.6 = 0.1

<Homework>

Answer as [1].

a) $\frac{6}{10} = 0.6$ b) $\frac{37}{10} = 3.7$ c) $\frac{13}{5} = 2.6$

d) $\frac{34}{100} = 0.34$ e) $\frac{143}{100} = 1.43$ f) $\frac{9}{25} = 0.36$

L67: Convert to decimal fractions

[1] Convert to decimal fractions.

a) $\frac{2}{10} = 0.2$ b) $\frac{17}{10} = 1.7$

c) $\frac{3}{5} = \frac{6}{10} = 0.6$ d) $\frac{24}{100} = 0.24$

e) $\frac{70}{100} = 0.7$ f) $\frac{14}{50} = \frac{28}{100} = 0.28$

This should be 0.7, not 0.70.

[2] Answer as [1].

a) $\frac{7}{10} = 0.7$ b) $\frac{47}{10} = 4.7$

c) $\frac{12}{5} = \frac{24}{10} = 2.4$ d) $\frac{28}{100} = 0.28$

e) $\frac{153}{100} = 1.53$ f) $\frac{3}{50} = \frac{6}{100} = 0.06$

g) $\frac{11}{25} = \frac{44}{100} = 0.44$ h) $\frac{7}{20} = \frac{35}{100} = 0.35$

[R] Solve:

a) 0.17 × 10 = 1.7

b) 3.7 ÷ 10 = 0.37

c) 0.25 × 100 = 25

Lesson	**68** /120	Curriculum	B4.1.4.1.2 (p.26) e.g.1-3
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Be able to round off decimal fractions.		
Introduction (sample)	• Review the term "round off", then round off 26.35 to the nearest: a) 10. 26.35 30 b) whole number. 26.35 26 c) tenth. 26.35 26.4		
Teacher's Note	• In this teacher's guide, "round to XX" is the same as "round off to XX" in accordance with the curriculum. • Explain the question what to do with [1A].		

<Mental Maths>

a) 0.2 + 0.4 = 0.6 b) 0.6 + 0.2 = 0.8 c) 0.7 + 0.2 = 0.9

d) 0.7 – 0.2 = 0.5 e) 0.8 – 0.2 = 0.6

<Homework>

Round the number to the nearest tenth.

a) 2.63 2.6 b) $\frac{157}{100} = 1.57$ 1.6

c) $\frac{16}{50} = 0.32$ 0.3

d) $\frac{26}{25} = \frac{104}{100} = 1.04$ 1

L68: Round decimal fractions

Round 0, 1, 2, 3, 4 → 0
5, 6, 7, 8, 9 → 10

Round 32.46 to nearest:

a) tenth. 32.46 32.5

b) whole number. 32.46 32

[1A] Round the number to the nearest tenth.

a) 3.62 3.6 b) 51.48 51.5

c) $\frac{125}{100} = 1.25$ 1.3

[1B] Round the number to the nearest whole number.

a) 3.62 4 b) 51.48 51

c) $\frac{125}{100} = 1.25$ 1

[2A] Answer as [1A].

a) 41.52 41.5 b) $\frac{24}{100} = 0.24$ 0.2

c) $\frac{63}{50} = \frac{126}{100} = 1.26$ 1.3

d) $\frac{24}{25} = \frac{96}{100} = 0.96$ 1

This should be 1, not 1.0.

[2B] Answer as [1B].

a) 25.38 25 b) $\frac{34}{10} = 3.4$ 3

c) $\frac{9}{5} = \frac{18}{10} = 1.8$ 2

d) $\frac{14}{25} = \frac{56}{100} = 0.56$ 1

[R] Convert to common fractions.

a) $0.6 = \frac{6}{10}$ b) $3.7 = \frac{37}{10}$

c) $0.17 = \frac{17}{100}$ d) $3.24 = \frac{324}{100}$

Lesson	**69** /120	Curriculum	B4.1.4.1.3 (p.27) e.g.1-3
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Be able to add decimal fractions of tenth.		
Introduction (sample)	• Explain that 1.2 is 12 tenths and 2.3 is 23 tenths, hence 12 tenths + 23 tenths = 35 tenths. Then, show how to add 1.2 + 2.3 using column method as shown on the board. • Show how to solve 4.7 + 2.8.		
Teacher's Note	• Use column method to add decimal fractions. It is important to align the decimal point. Indicate the decimal point clearly as shown below. • In HTO structure, the tens place is shown in capital letter and the tenths place is shown in small letter. The same applies to the hundredths. • The numbers in the questions are carefully chosen to practice many different variation of addition (without regrouping, without tenth, with regrouping).		

<Mental Maths>

a) 0.5 + 0.2 = 0.7 b) 0.5 + 0.3 = 0.8 c) 0.6 + 0.3 = 0.9

d) 0.7 – 0.3 = 0.4 e) 0.8 – 0.3 = 0.5

<Homework>

Use the column method to solve:

a) 1.2 + 2.6 = 3.8 b) 1.4 + 0.5 = 1.9

c) 5.3 + 1.2 = 6.5 d) 0.8 + 3 = 3.8

e) 6.6 + 1.7 = 8.3 f) 2.7 + 3.3 = 6

L69: Add decimals (tenth)

	O	t
	1.	2
+	2.	3
	3.	5

	O	t
	1	
	4.	7
+	2.	8
	7.	5

[1] Solve:

a)

	O	t
	0.	3
+	0.	6
	0.	9

b)

	O	t
	4.	1
+	2.	2
	6.	3

c)

	0.	7
+	5.	2
	5.	9

d)

	O	t
	1	
	2.	7
+	1.	6
	4.	3

e)

	O	t
	1	
	4.	3
+	2.	7
	7.	0

f)

	2	
+	7.	1
	9.	1

[2] Solve:

a)

	O	t
	1.	2
+	3.	6
	4.	8

b)

	3.	4
+	5.	1
	8.	5

c)

	1.	5
+	0.	3
	1.	8

d)

	O	t
	1	
	6.	5
+	2.	9
	9.	4

e)

	0.	8
+	2	
	2.	8

f)

	1	
	0.	8
+	7.	4
	8.	2

Align decimal points.

g) 2 + 3.6 h) 6.2 + 1.8

	2	
+	3.	6
	5.	6

	1	
	6.	2
+	1.	8
	8.	0

[R] Round the number to the nearest tenth.

a) $\frac{24}{50} = \frac{48}{100} = 0.48 \approx 0.5$

b) $\frac{51}{25} = \frac{204}{100} = 2.04 \approx 2$

Lesson	**70** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L71, [2]: L72, [3]: L73, [4]: L74.		

<Mental Maths>

a) 0.4 + 0.3 = 0.7 b) 0.4 + 0.4 = 0.8 c) 0.5 + 0.4 = 0.9

d) 0.7 – 0.4 = 0.3 e) 0.8 – 0.4 = 0.4

<Homework>

*No homework.

L70: Review

[1] Convert to common fractions.

a) $0.4 = \frac{4}{10}$ b) $1.6 = \frac{16}{10}$

c) $0.36 = \frac{36}{100}$

[2] Convert to decimal fractions.

a) $\frac{7}{10} = 0.7$ b) $\frac{28}{10} = 2.8$

c) $\frac{6}{25} = \frac{24}{100} = 0.24$

[3] Round the number to the nearest tenth.

a) 0.26 ~~0.3~~ b) $\frac{149}{100} = 1.49$ ~~1.5~~

c) $\frac{49}{50} = \frac{98}{100} = 0.98$ ~~1~~

[4] Solve:

a) 1.3 + 3.4

$$\begin{array}{r} 1.3 \\ +\ 3.4 \\ \hline 4.7 \end{array}$$

b) 2.9 + 3

$$\begin{array}{r} 2.9 \\ +\ 3 \\ \hline 5.9 \end{array}$$

c) 0.5 + 6.8

$$\begin{array}{r} {\scriptstyle 1}\ \ \\ 0.5 \\ +\ 6.8 \\ \hline 7.3 \end{array}$$

d) 5.2 + 3.8

$$\begin{array}{r} {\scriptstyle 1}\ \ \\ 5.2 \\ +\ 3.8 \\ \hline 9.0 \end{array}$$

Lesson	**71** /120	Curriculum	B4.1.4.1.3 (p.27) e.g.3
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Be able to subtract decimal fractions of tenth.		
Introduction (sample)	• Explain that 2.5 is 25 tenths and 1.3 is 13 tenths, hence 25 tenths – 13 tenths = 12 tenths. Then, show how to subtract 2.5 – 1.3 and 4.7 – 2.8 using column method.		
Teacher's Note	• Use column method to subtract decimal fractions. It is important to align the decimal point. Indicate the decimal point clearly as shown below. • The numbers in the questions are carefully chosen to practice many different variation of subtraction (without regrouping, without tenth, with regrouping).		

<Mental Maths>

a) 0.4 + 0.5 = 0.9 b) 0.6 + 0.4 = 1 c) 0.8 – 0.5 = 0.3

d) 0.9 – 0.4 = 0.5 e) 1 – 0.4 = 0.6

<Homework>

Use the column method to solve:

a) 5.9 – 1.4 = 4.5 b) 3.8 – 0.7 = 3.1

c) 7.3 – 5.7 = 1.6 d) 8 – 4.9 = 3.1

e) 9.8 – 3 = 6.8 f) 7.3 – 3.3 = 4

L71: Subtract decimals (tenth)

O	t
2.	5
– 1.	3
1.	2

O	t
~~3~~	~~17~~
~~4~~.	~~7~~
– 2.	8
1.	9

[1] Solve:

a)

O	t
5.	7
– 2.	3
3.	4

b)

O	t
3.	7
– 0.	6
3.	1

c)

5.	4
– 5.	1
0.	3

d)

O	t
~~3~~	~~11~~
4.	~~1~~
– 1.	8
2.	3

e)

O	t
~~6~~	~~14~~
7.	~~4~~
– 6.	6
0.	8

f)

O	t
~~6~~	~~10~~
~~8~~	
– 4.	8
3.	2

[2] Solve:

a)

O	t
4.	9
– 1.	4
3.	5

b)

2.	8
– 0.	6
2.	2

c)

6.	5
– 6.	1
0.	4

d)

O	t
~~7~~	~~13~~
8.	~~3~~
– 5.	7
2.	6

e)

~~3~~	~~16~~
4.	~~6~~
– 3.	7
0.	9

f)

~~6~~	~~10~~
~~7~~	
– 1.	9
5.	1

g) 6.3 – 4

6.	3
– 4	
2.	3

h) 7.2 – 2.2

7.	2
– 2.	2
5.	0

[R] Solve:

a) 2.3 + 3.6

2.	3
+ 3.	6
5.	9

b) 2.5 + 0.3

2.	5
+ 0.	3
2.	8

c) 3.6 + 1.8

1	
3.	6
+ 1.	8
5.	4

d) 0.9 + 5.4

1	
0.	9
+ 5.	4
6.	3

Lesson	**72** /120	Curriculum	B4.1.4.1.3 (p.27) e.g.1-3
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Be able to add decimal fractions of hundredth.		
Introduction (sample)	• Explain how to solve 1.52 + 2.64 (regrouping once) and 2.56 + 3.67 (regrouping twice) by column method as shown on the board.		
Teacher's Note	• Use column method to add decimal fractions. • Let learners align the decimal point and place value.		

<Mental Maths>

a) 0.3 + 0.6 = 0.9 b) 0.5 + 0.5 = 1 c) 0.8 – 0.6 = 0.2

d) 0.9 – 0.5 = 0.4 e) 1 – 0.5 = 0.5

<Homework>

Use the column method to solve:

a) 0.32 + 0.51 = 0.83 b) 0.28 + 0.56 = 0.84

c) 0.75 + 1.48 = 2.23 d) 2.03 + 5.1 = 7.13

e) 1.52 + 0.28 = 1.8 f) 3.42 + 0.58 = 4

L72: Add hundredth

$$\begin{array}{r} {\scriptstyle 1} \\ 1.52 \\ +\ 2.64 \\ \hline 4.16 \end{array} \qquad \begin{array}{r} {\scriptstyle 1\ 1} \\ 2.56 \\ +\ 3.67 \\ \hline 6.23 \end{array}$$

[1] Solve:

a)
$$\begin{array}{r} 0.42 \\ +\ 0.15 \\ \hline 0.57 \end{array}$$

b)
$$\begin{array}{r} 0.37 \\ +\ 0.82 \\ \hline 1.19 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 1} \\ 2.45 \\ +\ 1.71 \\ \hline 4.16 \end{array}$$

d)
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 1.45 \\ +\ 2.78 \\ \hline 4.23 \end{array}$$

[2] Solve:

a)
$$\begin{array}{r} 0.23 \\ +\ 0.45 \\ \hline 0.68 \end{array}$$

b)
$$\begin{array}{r} {\scriptstyle 1} \\ 0.49 \\ +\ 0.35 \\ \hline 0.84 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 0.53 \\ +\ 1.78 \\ \hline 2.31 \end{array}$$

d) 4.54 + 2.69
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 4.54 \\ +\ 2.69 \\ \hline 7.23 \end{array}$$

e) 4.32 + 0.68
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 4.32 \\ +\ 0.68 \\ \hline 5.00 \end{array}$$

f) 5.3 + 0.74
$$\begin{array}{r} {\scriptstyle 1} \\ 5.3 \\ +\ 0.74 \\ \hline 6.04 \end{array}$$

[R] Solve:

a) 2.9 – 1.4
$$\begin{array}{r} 2.9 \\ -\ 1.4 \\ \hline 1.5 \end{array}$$

b) 3.8 – 0.6
$$\begin{array}{r} 3.8 \\ -\ 0.6 \\ \hline 3.2 \end{array}$$

c) 8.3 – 7.7
$$\begin{array}{r} {\scriptstyle 7\ 13} \\ \cancel{8}.\cancel{3} \\ -\ 7.7 \\ \hline 0.6 \end{array}$$

d) 5 – 4.3
$$\begin{array}{r} {\scriptstyle 4\ 10} \\ \cancel{5} \\ -\ 4.3 \\ \hline 0.7 \end{array}$$

Lesson	**73** /120	Curriculum	B4.1.4.1.3 (p.27) e.g.1-3
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Be able to subtract decimal fractions of hundredth.		
Introduction (sample)	• Explain how to solve 3.93 – 2.58 (regrouping once) and 1.42 – 0.64 (regrouping twice) in column method as shown on the board.		
Teacher's Note	• Use column method to add and subtract decimal fractions. • Let learners align the decimal place and place value.		

<Mental Maths>

a) 0.2 + 0.7 =0.9 b) 0.4 + 0.6 =1 c) 0.8 – 0.7 =0.1

d) 0.9 – 0.6 = 0.3 e) 1 – 0.6 = 0.4

<Homework>

Use the column method to solve:

a) 0.58 – 0.26 = 0.32 b) 1.56 – 0.84 = 0.72

c) 2.23 – 1.48 = 0.75 d) 6.03 – 5.1 = 0.93

e) 5.4 – 1.58 = 3.82 f) 7 – 2.83 = 4.17

L73: Subtract hundredth

$$\begin{array}{r} {\scriptstyle 8\ 13} \\ 3.9\not{3} \\ -\ 2.5\ 8 \\ \hline 1.3\ 5 \end{array} \qquad \begin{array}{r} {\scriptstyle 0\ 13\ 12} \\ 1.\not{4}\ \not{2} \\ -\ 0.6\ 4 \\ \hline 0.7\ 8 \end{array}$$

[1] Solve:

a)
$$\begin{array}{r} 0.9\ 5 \\ -\ 0.5\ 3 \\ \hline 0.4\ 2 \end{array}$$

b)
$$\begin{array}{r} {\scriptstyle 8\ 13} \\ 0.9\not{3} \\ -\ 0.5\ 5 \\ \hline 0.3\ 8 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 4\ 14} \\ 5.\not{4}\ 8 \\ -\ 1.6\ 3 \\ \hline 3.8\ 5 \end{array}$$

d)
$$\begin{array}{r} {\scriptstyle 2\ 14\ 13} \\ 3.\not{5}\ \not{3} \\ -\ 0.8\ 6 \\ \hline 2.6\ 7 \end{array}$$

[2] Solve:

a)
$$\begin{array}{r} 0.6\ 8 \\ -\ 0.2\ 7 \\ \hline 0.4\ 1 \end{array}$$

b)
$$\begin{array}{r} 1.2\ 8 \\ -\ 0.6\ 7 \\ \hline 0.6\ 1 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 3\ 14} \\ 4.\not{4}\ 5 \\ -\ 2.6\ 3 \\ \hline 1.8\ 2 \end{array}$$

d) 5.31 – 4.52
$$\begin{array}{r} {\scriptstyle 4\ 12\ 11} \\ 5.\not{3}\ \not{1} \\ -\ 4.5\ 2 \\ \hline 0.7\ 9 \end{array}$$

e) 3.2 – 0.64
$$\begin{array}{r} {\scriptstyle 2\ 11\ 10} \\ 3.\not{2}\ 0 \\ -\ 0.6\ 4 \\ \hline 2.5\ 6 \end{array}$$

f) 5 – 2.39
$$\begin{array}{r} {\scriptstyle 4\ 9\ 10} \\ \not{5}\ 0\ 0 \\ -\ 2.3\ 9 \\ \hline 2.6\ 1 \end{array}$$

[R] Solve:

a)
$$\begin{array}{r} 0.2\ 6 \\ +\ 0.2\ 3 \\ \hline 0.4\ 9 \end{array}$$

b)
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 0.6\ 8 \\ +\ 1.7\ 8 \\ \hline 2.4\ 6 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 3.7\ 4 \\ +\ 2.4\ 8 \\ \hline 6.2\ 2 \end{array}$$

d)
$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 6.2\ 2 \\ +\ 0.7\ 8 \\ \hline 7.0\ 0 \end{array}$$

Lesson	**74** /120	Curriculum	B4.1.5.1.1 (p.28) e.g.1,2
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Be able to recognise percent in relation with decimal fractions.		
Introduction (sample)	• Introduce the term "percent". Cent means $\frac{1}{100}$ (e.g. centimeter). • Show how to convert decimal and comon fractions into percentage.		
Teacher's Note	• The percent is limited to less than or equal to 100% at this level. • In B5, percentage is used as common fraction rather than decimal fractions, hence [1A] focus on common fraction. • This lesson focus on common fractions whose denominators are 10 or 50.		

<Mental Maths>

a) 0.8 + 0.2 = 1 b) 0.3 + 0.7 = 1 c) 0.9 – 0.2 = 0.7

d) 0.9 – 0.7 = 0.2 e) 1 – 0.7 = 0.3

<Homework>

Answer as [1B].

a) 0.07 = 7% b) 0.27 = 27%

c) 0.8 = 80% d) $\frac{19}{100}$ = 19%

e) $\frac{24}{50} = \frac{48}{100} = 48\%$ e) $\frac{3}{10} = \frac{30}{100} = 30\%$

Make the denominator 100.

L74: Understand the percentage (1)

$$0.19 = \frac{19}{100} = 19\%$$

[1A] Covert to common fractions.

a) $2\% = \frac{2}{100}$ b) $53\% = \frac{53}{100}$

c) $60\% = \frac{60}{100}$

[1B] Convert to percentages.

a) $\frac{6}{100} = 6\%$ b) $\frac{17}{50} = \frac{34}{100} = 34\%$

c) $0.09 = \frac{9}{100} = 9\%$ d) $0.16 = \frac{16}{100} = 16\%$

[2A] Answer as [1B].

a) $\frac{14}{100} = 14\%$ b) $\frac{28}{50} = \frac{56}{100} = 56\%$

c) $\frac{4}{10} = \frac{40}{100} = 40\%$ d) $0.09 = \frac{9}{100} = 9\%$

e) $0.26 = \frac{26}{100} = 26\%$

f) $0.7 = \frac{7}{10} = \frac{70}{100} = 70\%$

[2B] Answer as [1A].

a) $3\% = \frac{3}{100}$ b) $74\% = \frac{74}{100}$

[R] Solve:

a)
$$\begin{array}{r} 0.65 \\ -\ 0.23 \\ \hline 0.42 \end{array}$$

b)
$$\begin{array}{r} {\scriptstyle 1\ \ 13} \\ 2.35 \\ -\ 0.73 \\ \hline 1.62 \end{array}$$

c)
$$\begin{array}{r} {\scriptstyle 6\ 12\ 11} \\ 7.31 \\ -\ 6.42 \\ \hline 0.89 \end{array}$$

d)
$$\begin{array}{r} {\scriptstyle 3\ \ 9\ 10} \\ 4 \\ -\ 0.51 \\ \hline 3.49 \end{array}$$

Lesson	**75** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L71, [2]: L72, [3]: L73, [4]: L74.		

<Mental Maths>

a) 0.7 + 0.3 = 1 b) 0.2 + 0.8 = 1 c) 0.9 – 0.3 = 0.6

d) 0.9 – 0.8 = 0.1 e) 1 – 0.8 = 0.2

<Homework>

*No homework.

L75: Review

[1] Solve:

a) 4.9 – 1.6

$$\begin{array}{r} 4.9 \\ -\ 1.6 \\ \hline 3.3 \end{array}$$

b) 9.2 – 5.7

$$\begin{array}{r} {\scriptstyle 8}\ {\scriptstyle 12} \\ 9.\cancel{2} \\ -\ 5.7 \\ \hline 3.5 \end{array}$$

c) 8 – 1.9

$$\begin{array}{r} {\scriptstyle 7}\ {\scriptstyle 10} \\ \cancel{8} \\ -\ 1.9 \\ \hline 6.1 \end{array}$$

d) 5.4 – 2

$$\begin{array}{r} 5.4 \\ -\ 2 \\ \hline 3.4 \end{array}$$

[2] Solve:

a) 0.23 + 0.45

$$\begin{array}{r} 0.23 \\ +\ 0.45 \\ \hline 0.68 \end{array}$$

b) 1.84 + 2.45

$$\begin{array}{r} {\scriptstyle 1} \\ 1.84 \\ +\ 2.45 \\ \hline 4.29 \end{array}$$

c) 0.82 + 3.2

$$\begin{array}{r} {\scriptstyle 1} \\ 0.82 \\ +\ 3.2 \\ \hline 4.02 \end{array}$$

[3] Solve:

a) 0.59 – 0.14

$$\begin{array}{r} 0.59 \\ -\ 0.14 \\ \hline 0.45 \end{array}$$

b) 5.29 – 3.42

$$\begin{array}{r} {\scriptstyle 4}\ {\scriptstyle 12} \\ 5.\cancel{2}\ 9 \\ -\ 3.4\ 2 \\ \hline 1.8\ 7 \end{array}$$

c) 4.6 – 0.75

$$\begin{array}{r} {\scriptstyle 3}\ {\scriptstyle 15}\ {\scriptstyle 10} \\ 4.\cancel{6} \\ -\ 0.7\ 5 \\ \hline 3.8\ 5 \end{array}$$

[4] Convert to percentages.

a) $\frac{24}{100} = 24\%$ b) $\frac{7}{50} = \frac{14}{100} = 14\%$

c) $0.08 = \frac{8}{100} = 8\%$

d) $0.8 = \frac{8}{10} = \frac{80}{100} = 80\%$

Lesson	**76** /120	Curriculum	B4.1.5.1.1 (p.28) e.g.1,2
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to recognise percent in relation with decimal fractions.		
Introduction (sample)	• In percentage, we need to make the denominator 100. To do that, let learners memorise that 100 can be decomposed to the four patterns as shown on the board. • Show how to convert a common fraction to percentage using the patterns as shown on the board.		
Teacher's Note	• This lesson focus on common fractions whose denominators are 2, 4, 5, 10, 20, 25 or 50.		

<Mental Maths>

a) 0.9 + 0.2 = 1.1 b) 0.8 + 0.4 = 1.2 c) 1.1 – 0.3 = 0.8

d) 1.2 – 0.6 = 0.6 e) 1.3 – 0.5 = 0.8

<Homework>

Answer as [1A].

a) $\frac{7}{10} = 70\%$ b) $\frac{12}{20} = 60\%$

c) $\frac{2}{25} = \frac{8}{100} = 8\%$ d) $\frac{1}{2} = \frac{50}{100} = 50\%$

e) $\frac{3}{5} = \frac{60}{100} = 60\%$ f) $\frac{3}{4} = \frac{75}{100} = 75\%$

Multiply the same numbers to both the numerator and denominator to make the denominator 100.

L76: Understand the percentage (2)

$2 \times 50 = 100$ $4 \times 25 = 100$

$5 \times 20 = 100$

$\frac{7}{25} \overset{\times 4}{=} \frac{28}{100} = 28\%$ $\frac{3}{5} \overset{\times 4}{=} \frac{12}{20} \overset{\times 5}{=} \frac{60}{100} = 60\%$

[1A] Convert to percentages.

a) $\frac{3}{20} = \frac{15}{100} = 15\%$ b) $\frac{6}{25} = \frac{24}{100} = 24\%$

c) $\frac{1}{4} = \frac{5}{20} = \frac{25}{100} = 25\%$

[2B] What percent is the following?

a)  b) 

$\frac{1}{2} = \frac{50}{100} = 50\%$ $\frac{2}{5} = \frac{4}{10} = \frac{40}{100} = 40\%$

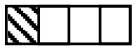
[2A] Answer as [1A].

a) $\frac{11}{20} = \frac{55}{100} = 55\%$ b) $\frac{12}{25} = \frac{48}{100} = 48\%$

c) $\frac{1}{5} = \frac{2}{10} = \frac{20}{100} = 20\%$

d) $\frac{2}{4} = \frac{10}{20} = \frac{50}{100} = 50\%$

[2B] Answer as [1B].

a)  b) 

$\frac{1}{4} = \frac{5}{20} = \frac{25}{100} = 25\%$ $\frac{4}{5} = \frac{8}{10} = \frac{80}{100} = 80\%$

c)  $\frac{3}{4} = \frac{15}{20} = \frac{75}{100} = 75\%$

[R] Convert to percentages.

a) $\frac{4}{10} = \frac{40}{100} = 40\%$ b) $\frac{11}{50} = \frac{22}{100} = 22\%$

c) $0.32 = \frac{32}{100} = 32\%$ d) $0.9 = \frac{90}{100} = 90\%$

Lesson	**77** /120	Curriculum	B4.1.5.1.1 (p.28) e.g. 1-3; B4.1.5.1.2 (p.29) e.g.1,2
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Be able to compare mixture of common, decimal and percent fractions.		
Introduction (sample)	• Review how to convert percentages to decimal fraction as shown on the board. • Show how to convert common fractions to decimal fractions by making the denominator to be 10 or 100 as shown on the board. • Write the rule to compare mixture of common, decimal and percent fractions as shown on the board.		
Teacher's Note	• Learners can use a number line if they want to.		

<Mental Maths>

a) 0.8 + 0.3 = 1.1 b) 0.7 + 0.5 = 1.2 c) 1.1 – 0.5 = 0.6

d) 1.2 – 0.7 = 0.5 e) 1.3 – 0.6 = 0.7

<Homework>

Answer as [1B].

a) $\frac{3}{4} < 80\%$ b) $\frac{3}{5} < 62\%$

0.75 0.8 0.6 0.62

c) $\frac{31}{50} > 59\%$ d) $\frac{11}{25} < 45\%$

0.62 0.59 0.44 0.45

L77: Compare various representations

$34\% = 0.34$ $90\% = 0.9$

$\frac{4}{5} \xrightarrow{\times 2} \frac{8}{10} = 0.8$

$\frac{1}{4} \xrightarrow{\times 5} \frac{5}{20} \xrightarrow{\times 5} \frac{25}{100} = 0.25$

Compare numbers by converting them to decimal fractions.

[1A] Convert to decimal fractions.

a) $\frac{1}{2} = \frac{5}{10} = 0.5$ b) $\frac{2}{5} = \frac{4}{10} = 0.4$

c) $\frac{3}{25} = \frac{12}{100} = 0.12$ d) $\frac{13}{20} = \frac{65}{100} = 0.65$

[1B] Write >, < or =.

a) $\frac{45}{100} > 0.42$ b) $\frac{7}{50} < 15\%$

0.45 0.14 0.15

[2A] Answer as [1A].

a) $\frac{3}{5} = \frac{6}{10} = 0.6$ b) $\frac{3}{4} = \frac{15}{20} = \frac{75}{100} = 0.75$

[2B] Answer as [1B].

a) $\frac{33}{50} > 59\%$ b) $\frac{13}{25} < 55\%$

0.66 0.59 0.52 0.55

c) $\frac{1}{4} = 25\%$ d) $\frac{2}{5} < 45\%$

0.25 0.25 0.4 0.45

[R] Convert to percentages.

a) $\frac{7}{20} = \frac{35}{100} = 35\%$ b) $\frac{6}{25} = \frac{24}{100} = 24\%$

c) $\frac{2}{5} = \frac{4}{10} = \frac{40}{100} = 40\%$

d) $\frac{3}{4} = \frac{15}{20} = \frac{75}{100} = 75\%$

Lesson	**78** /120	Curriculum	B4.2.1.1.1 (p.30) e.g.1
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Be able to identify patterns in a hundred chart.		
Introduction (sample)	• Draw a hundred chart as shown on the board. • Ask learners to skip count by 2s and describe the pattern created. Repeat for 3, 4, 5, 6, 7, 8, and 9. Ask learners to describe what changes they notice as the numbers increase.		
Teacher's Note	• Use the same hundred chart in both introduction and exercise [1A]. • Check if learners: (i) identify all, some or none of the multiples of a given number. (ii) are able to predict and extend the pattern. (iii) are able to describe the pattern.		

<Mental Maths>

a) 0.7 + 0.4 = 1.1 b) 0.6 + 0.6 = 1.2 c) 1.1 – 0.7 = 0.4

d) 1.2 – 0.8 = 0.4 e) 1.3 – 0.7 = 0.6

<Homework>

a) Find the multiples of 5s in 1-50.

5, 10, 15, 20, 25, 30, 35, 40, 45, 50

b) Find the multiples of 6s in 1-60.

6, 12, 18, 24, 30, 36, 48, 54, 60

Explain "lower right diagonally" and "upper right diagonally".

L78: Patterns in a hundred chart

1	2	~~3~~	4	5	~~6~~	7	8	~~9~~	10
11	~~12~~	13	14	~~15~~	16	17	~~18~~	19	20
~~21~~	22	23	~~24~~	25	26	~~27~~	28	29	~~30~~
31	32	~~33~~	34	35	~~36~~	37	38	~~39~~	40
41	~~42~~	43	44	~~45~~	46	47	~~48~~	49	50
~~51~~	52	53	~~54~~	55	56	~~57~~	58	59	~~60~~
61	62	~~63~~	64	65	~~66~~	67	68	~~69~~	70
71	~~72~~	73	74	~~75~~	76	77	~~78~~	79	80
~~81~~	82	83	~~84~~	85	86	~~87~~	88	89	~~90~~
91	~~92~~	~~93~~	94	95	~~96~~	97	98	~~99~~	~~100~~

[1A] a) Circle the multiples of 10s.

b) Draw triangles on the multiples 4s.

c) Cross the multiples of 3s

[1B] Find the multiples of 4s in 31-60.

32, 36, 40, 44, 48, 52, 56, 60

[2A]

a) Find the multiples of 5s in 31-60.

35, 40, 45, 50, 55, 60

b) What are the common numbers in 4 and 5 in 31-60? 40, 60

Refer [1B] to get the answer. No need to list the multiples of 4s.

[2B] Find the pattern if you look:

a) horizontally. Add 1

b) vertically. Add 10

c) lower right diagonally. Add 11

d) upper right diagonally. Subtract 9

[R] Write >, < or =.

a) $\frac{55}{100} > 0.52$ 0.55

b) $59\% < 0.6$ 0.59

c) $\frac{11}{50} > 20\%$ 0.22 0.2

d) $\frac{13}{20} = 65\%$ 0.65 0.65

Lesson	**79** /120	Curriculum	B4.2.1.1.2 (p.30) e.g.1; B4.2.1.1.3 (p.30) e.g. 1
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Be able to identify patterns in a table.		
Introduction (sample)	• Let learners identify patterns for the following samples. Teach learners how to read the table both vertically and horizontally. 1 2 3 4 5 6 2 4 6 8 10 12 1 2 3 4 5 6 5 10 15 20 25 30 1 2 3 4 5 6 4 7 10 13 16 19		
Teacher's Note	• The patterns in this lesson are multiples of a number and increase by the same amount.		

<Mental Maths>

a) 0.6 + 0.5 = 1.1 b) 0.9 + 0.4 = 1.3 c) 1.1 – 0.9 = 0.2

d) 1.2 – 0.9 = 0.3 e) 1.3 – 0.8 = 0.5

<Homework>

Fill in the table.

a)

1	2	3	4	5	6
6	12	18	24	30	36

b)

1	2	3	4	5	6
4	7	10	13	16	19

c)

1	2	3	4	5	6
8	13	18	23	28	33

L79: Identify patterns in a table

[1A] Fill in the table.

a)

1	2	3	4	5	6
3	6	9	12	15	18

b)

1	2	3	4	5	6
7	12	17	22	27	32

[1B] Find the rule and correct errors.

a)

1	2	3	4	5	6
6	12	18	24	~~32~~ 30	~~38~~ 36

Add 6

b)

1	2	3	4	5	6
8	12	16	~~22~~ 20	24	~~26~~ 28

Add 4

[2A] Fill in the table.

a)

1	2	3	4	5	6
7	14	21	28	35	42

b)

1	2	3	4	5	6
5	8	11	14	17	20

c)

1	2	3	4	5	6
9	14	19	24	29	34

[2B] Answer as [1B].

a)

1	2	3	4	5	6
8	16	~~22~~ 24	32	40	~~46~~ 48

Add 8

b)

1	2	3	4	5	6
10	16	22	~~26~~ 28	~~32~~ 34	40

Add 6

[R] Find the multiples of:

a) 3s in 1-30.

3, 6, 9, 12, 15, 18, 21, 24, 27, 30

b) 4s in 1-40.

4, 8, 12, 16, 20, 24, 28, 32, 36, 40

Lesson	**80** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L76, [2]: L77, [3]: L78, [4]: L79.		

<Mental Maths>

a) 0.9 + 0.3 = 1.2 b) 0.8 + 0.5 = 1.3 c) 1.2 – 0.4 = 0.8

d) 1.3 – 0.4 = 0.9 e) 1.3 – 0.9 = 0.4

<Homework>

*No homework.

L80: Review

[1] Convert to percentages.

a) $\frac{6}{20} = \frac{30}{100} = 30\%$ b) $\frac{7}{25} = \frac{28}{100} = 28\%$

c) $\frac{2}{5} = \frac{4}{10} = \frac{40}{100} = 40\%$

[2] Write >, < or =.

a) $\frac{3}{5}$ > 50% b) $\frac{14}{25}$ = 56%

0.6 0.5 0.56 0.56

c) $\frac{3}{4}$ < 80%

0.75 0.8

[3] Find the multiples of:

a) 3s in 31-60.

33, 36, 39, 42, 45, 48, 51, 54, 57, 60

b) 4s in 31-60.

32, 36, 40, 44, 48, 52, 56, 60

c) What are the common numbers in a) and b)? 36, 48, 60

[4] Fill in the table.

a)

1	2	3	4	5	6
6	12	18	24	30	36

b)

1	2	3	4	5	6
5	9	13	17	21	25

Lesson	**81** /120	Curriculum	B4.2.1.2.1 (p.31) e.g.1; B4.2.1.2.2 (p.32) e.g. 1,2
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Be able to create patterns shown in a table.		
Introduction (sample)	• Let learners create patterns that increases by 3 using bottle tops (or drawing circles).		
Teacher's Note	• The answer of [1] can vary. • In [2] c), 9 means the value of #5. #10 is 5 × 2 = 10 more than #5.		

1	2	3	4	5	6	7
3	6	9	12	15	18	21

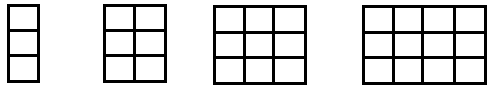
<Mental Maths>

a) 0.7+0.6=1.3 b) 0.8+0.7=1.5 c) 1.4 – 0.5 =0.9

d) 1.5 – 0.6 = 0.9 e) 1.6 – 0.8 = 0.8

<Homework>

a) Fill in the table.



Design #	1	2	3	4
# of circles	3	6	9	12

b) What is the 5th step? $12 + 3 = 15$

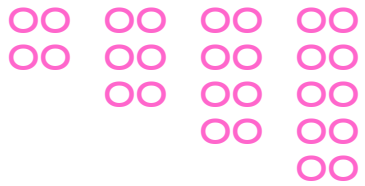
c) What is the 10th step? $10 \times 3 = 30$

This dotted line separates exercise part 1 and 2.
Write all the black parts up to this line in exercise part 1.

L81: Create patterns in a table

[1A] Create a pattern by making a shape with circles.

1	4
2	6
3	8
4	10



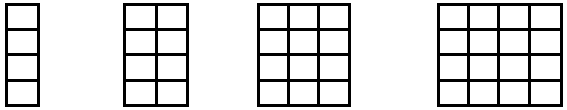
[1B] O OOO OOOOO OOOOOOO

a) Fill in the table.

Design #	1	2	3	4
# of squares	1	3	5	7

b) What is the 5th step? $7 + 2 = 9$

[2A] a) Fill in the table.



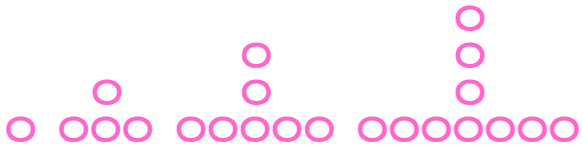
Design #	1	2	3	4
# of squares	4	8	12	16

b) What is the 5th step? $16 + 4 = 20$

c) What is the 10th step? $10 \times 4 = 40$

[2B] Answer as [1A].

1	2	3	4
1	4	7	10



[R] Find the rule and correct errors.

a)

1	2	3	4	5	6
5	10	15	~~19~~ 20	~~24~~ 25	30

Multiples of 5 (Add 5)

b)

1	2	3	4	5	6
10	18	26	34	~~40~~ 42	~~48~~ 50

Add 8

Skip review task if you don't have time.

Lesson	**82** /120	Curriculum	B4.2.1.3.1 (p.32) e.g.1; B4.2.1.3.2. (p.32) e.g. 1,2
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to create tables to translate the given information.		
Introduction (sample)	• Kofi's family eat 2kg of maize every day. Show the relationship between the day and the amount of maize for five days in a table. Ask: 1. how much maize do they need for 4 days (8kg). 2. how much maize do they need for 15 days (15 × 2 = 30kg). 3. how many days can they eat with 40kg? (40 ÷ 2 = 20 days)		
Teacher's Note	• Learners are expected to find the answer not by repeated addition, but by multiplication. Encourage them to use multiplication.		

<Mental Maths>

a) 0.9+0.5 =1.4 b) 0.9+0.7=1.6 c) 1.4 – 0.6 =0.8

d) 1.5 – 0.7 = 0.8 e) 1.6 – 0.9 = 0.7

<Homework>

Afua earns ¢6 a day. She has ¢40 today.

a) Show the relationship in the table.

Minutes	0	1	2	3	4
Water	40	46	52	58	64

b) How much will he have on day 5? ¢70

c) On which day will he have ¢100? Day 10

L82: Translate information into a table

[1A] When filling a tank, the water increases by 4L every minute.

a) Show the relationship in a table.

Minutes	0	1	2	3	4	5
Water	0	4	8	12	16	20

How much water after:

b) 3 minutes? 12L

c) 15 minutes? $15 \times 4 = 60$, 60L

[1B] Adwoa earns ¢10 a day.

She has ¢20 today.

Show the relationship in the table.

Day	0	1	2	3	4	5
Money	20	30	40	50	60	70

[2A] A family eat 3kg of rice every day.

a) Show the relationship in a table.

Day	0	1	2	3	4	5
Rice	0	3	6	9	12	15

How much rice after:

b) 5 days? 15kg

c) 20 days? $20 \times 3 = 60$, 60kg

[2B] Kwaku earns ¢8 a day.
He has ¢20 today.

a) Show the relationship in the table.

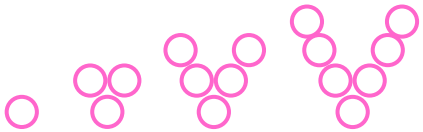
Day	0	1	2	3	4	5
Money	20	28	36	44	52	60

b) On which day will he have ¢100?

$40 \div 8 = 5$, 5 days more from day 5. Day 10

[R] Create a pattern by making a shape with circles.

1	1
2	3
3	5
4	7



Lesson	**83** /120	Curriculum	B4.2.2.2.1 (p.34) e.g.1; B4.2.2.2.4 (p.34) e.g.1
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Understand the solution of an equation by comparing with a pan balance.		
Introduction (sample)	• Solve the following by guess and check method. Tell them that alphabets are used instead of squares in some cases. a) ☐ + 2 = 5 ☐ = 3 b) 13 + ☐= 17 ☐ = 4 c) 16 – P = 12 P = 4 d) 3 × ☐= 12 ☐ = 4 e) ☐ ÷ 4 = 6 Q = 24		
Teacher's Note	• Using a letter instead of ☐ appears in the National Standardised Test. Hence, this type of tasks are included in this teacher's guide.		

<Mental Maths>

a) 0.8 + 0.6 = 1.4 b) 0.8 + 0.8 = 1.6 c) 1.4 – 0.7 = 0.7

d) 1.5 – 0.8 = 0.7 e) 1.7 – 0.8 = 0.9

<Homework>

Solve:

a) 5 + n = 10 n = 5

b) 11 – m = 7 m = 4

c) 8 × P = 56 P = 7

d) 81 ÷ Q = 9 Q = 9

L83: Solve an equation by guess and check

[1] Solve by guess and check.

a) ☐ + 8 = 10 ☐ = 2

b) 13 + ☐ = 19 ☐ = 6

c) ☐ – 3 = 7 ☐ = 10

d) 17 – ☐ = 11 ☐ = 6

e) 5 × ☐ = 20 ☐ = 4

f) 8 ÷ ☐ = 4 ☐ = 2

[2A] Solve:

a) ☐ + ○○○○ = ○○○○○ ☐ = ○○

b) ○○○○○ ○○ – ☐ = ○○○○ ☐ = ○○○

[2B] Answer as [1].

a) 5 + m = 12 m = 7

b) n – 6 = 12 n = 18

c) 15 – P = 9 P = 6

d) 7 × Q = 63 Q = 9

e) 64 ÷ R = 8 R = 8

The only difference from [1] is the representation of unknowns.

[R] When filling a tank, the water increases by 5L every minute.

a) Show the relationship in a table.

Minutes	0	1	2	3	4	5
Water	0	5	10	15	20	25

How much water after:

b) 4 minutes? 20L

c) 15 minutes? 15 × 5 = 75, 75L

Lesson	**84** /120	Curriculum	B4.2.2.2.1 (p.34) e.g.1; B4.2.2.2.4 (p.34) e.g. 1
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Understand the solution of an equation by comparing with a pan balance.		
Introduction (sample)	• Prepare a pan balance. Use ¢1 coin as a weight. Find an object around you (e.g. duster, pens etc.) If the weight of the object is equal to 4 coins, Solve ☐ + 3 = 7 where the number shows the number of coins. Take a coin from both sides and continue it until it becomes ☐ = 4. • Show how to find unknowns as shown on the board.		
Teacher's Note	• A pan balance can be made from a clothes hanger and two dishes. Even if it is not working properly, it is ok if learners understand the concept. • Equations with the second operand an unknown, e.g.16 – ☐ = 7, is not dealt in this lesson because we cannot solve it by just adding or subtracting.		

<Mental Maths>

a) 0.7 + 0.7 = 1.4 b) 0.9 + 0.8 = 1.7 c) 1.4 – 0.8 = 0.6

d) 1.5 – 0.9 = 0.6 e) 1.7 – 0.9 = 0.8

<Homework>

Solve:

a) ☐ + 4 = 11 b) ☐ – 6 = 10

☐ = 7 ☐ = 16

c) 25 + ☐ = 78 d) ☐ – 32 = 54

☐ = 78 – 25 = 53 ☐ = 54 + 32 = 86

L84: Understand the mechanism of an equation

2 + ☐ = 7 ☐ – 2 = 7

☐ = 7 – 2 = 5 ☐ = 7 + 2 = 9

> Add or subtract the same number on both sides.

[1] Solve:

a) 13 + ☐ = 19 b) ☐ – 12 = 17

☐ = 19 – 13 = 6 ☐ = 17 + 12 = 29

c) ☐ + 28 = 54 d) ☐ – 19 = 56

☐ = 54 – 28 = 26 ☐ = 56 + 19 = 75

$$\begin{array}{r} {\not{5}}^{4}\,{\not{4}}^{14} \\ -\ 2\ 8 \\ \hline 2\ 6 \end{array} \qquad \begin{array}{r} {}^{1}\,5\ 6 \\ +\ 1\ 9 \\ \hline 7\ 5 \end{array}$$

[2] Solve:

a) ☐ + 4 = 11 b) ☐ – 6 = 10

☐ = 7 ☐ = 16

c) 25 + ☐ = 73 d) ☐ – 38 = 54

☐ = 73 – 25 = 48 ☐ = 54 + 38 = 92

$$\begin{array}{r} {\not{7}}^{6}\,{\not{3}}^{13} \\ -\ 2\ 5 \\ \hline 4\ 8 \end{array} \qquad \begin{array}{r} {}^{1}\,5\ 4 \\ +\ 3\ 8 \\ \hline 9\ 2 \end{array}$$

e) 54 + ☐ = 146 f) ☐ – 53 = 76

☐ = 146 – 54 = 92 ☐ = 76 + 53 = 129

$$\begin{array}{r} 1\ 4\ 6 \\ -\ 5\ 4 \\ \hline 9\ 2 \end{array} \qquad \begin{array}{r} 7\ 6 \\ +\ 5\ 3 \\ \hline 1\ 2\ 9 \end{array}$$

[R] Solve by guess and check.

a) 5 + m = 13 m = 8

b) n – 4 = 13 n = 17

c) 16 – P = 9 P = 7

d) 8 × Q = 64 Q = 8

e) 81 ÷ R = 9 R = 9

Lesson	**85** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L81, [2]: L82, [3]: L83, [4]: L84.		

<Mental Maths>

a) 0.9 + 0.6 = 1.5 b) 0.9 + 0.9 = 1.8 c) 1.4 – 0.9 = 0.5

d) 1.6 – 0.7 = 0.9 e) 1.8 – 0.9 = 0.9

<Homework>

*No homework.

L85: Review

[1] a) Fill in the table.

○ ○○ ○○○ ○○○○
○ ○○ ○○○ ○○○○

Design #	1	2	3	4
# of circles	2	4	6	8

What is the:

b) 10th step? 20 c) 20th step? 40

[2] Akosua's family eat 4kg of rice every day.

a) Show the relationship in a table.

Day	0	1	2	3	4	5
Rice	0	4	8	12	16	20

How much rice after:

b) 5 days? 20kg

c) 20 days? $20 \times 4 = 80$, 80kg

[3] Solve by guess and check.

a) 5 + m = 9 $m = 4$

b) 10 – P = 4 $P = 6$

c) 5 × Q = 20 $Q = 4$

d) 30 ÷ R = 6 $R = 5$

[4] Solve:

a) 28 + □ = 66 b) □ – 37 = 45

□ = 66 – 28 = 38 □ = 45 + 37 = 82

$$\begin{array}{r} {}^{5}\cancel{6}\ {}^{16}\cancel{6} \\ -\ 2\ 8 \\ \hline 3\ 8 \end{array} \qquad \begin{array}{r} {}^{1} \\ 4\ 5 \\ +\ 3\ 7 \\ \hline 8\ 2 \end{array}$$

Lesson	**86** /120	Curriculum	B4.2.2.1.1 (p.33) e.g.1; B4.2.2.1.2 (p.33) e.g.1
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Be able to solve addition and subtraction with an unknown by part-part-whole method.		
Introduction (sample)	• Explain part-part-whole method using a number bond chart, e.g. 4 + P = 6, Q + 15 = 21, 15 – X = 8. Let learners write equations. • Explain the relationship between the part-part-whole diagram and the equation. (Which part corresponds to which part.)		
Teacher's Note	• Using a letter instead of ☐ appears in the National Standardised Test. Hence, this type of tasks are included in this teacher's guide. • Explain the term "equation" as "number sentence with unknowns". Let learners check the solution by substituting the answer to the unknow.		

<Mental Maths>

a) 30 × 6 = 180 b) 30 × 9 = 270 c) 40 × 6 = 240

d) 40 × 9 = 360 e) 50 × 7 = 350

<Homework>

Answer as [2B].

a) P + 12 = 36 P = 36 – 12 = 24

b) Q – 14 = 23 Q = 23 + 14 = 37

c) 42 – X = 26 X = 42 – 26 = 16

d) 17 + Y = 44 Y = 44 – 17 = 27

L86: Solve an equation (1)

[1A] Fill in the blanks.

a)

17	
5	12

b)

15	
11	4

c)

16	
5	11

17 – 5 = 12 15 – 4 = 11 5 + 11 = 16

[1B] Solve:

a) P + 14 = 36 b) Q – 17 = 21

36	
P	14

Q	
21	17

P = 36 – 14 = 22 Q = 21 + 17 = 38

[2A] Solve:

a) P + 12 = 38 b) Q – 18 = 23

38	
P	12

Q	
23	18

P = 38 – 12 = 26 Q = 23 + 18 = 41

c) 32 – X = 25 d) 15 + Y = 24

32	
X	25

24	
15	Y

X = 32 – 25 = 7 Y = 24 – 15 = 9

[R] Solve:

a) ☐ + 18 = 41 ☐ = 41 – 18 = 23

b) 27 + ☐ = 45 ☐ = 45 – 27 = 18

c) ☐ – 19 = 37 ☐ = 37 + 19 = 56

Lesson	**87** /120	Curriculum	B4.2.2.2.3 (p.34) e.g.1; B4.2.2.2.5 (p.34) e.g.1
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Be able to solve equations by drawing number bond chart.		
Introduction (sample)	• Show how to solve 15 – P = 8. Practice 27 – Q = 13 and 34 – X = 12 to get used to this type. Use base ten materials where necessary.		
Teacher's Note	• Learners are expected to draw a part-part-whole diagram to find the unknown. Let learners remember what they have learnt in the previous lesson. • Do NOT forget the unit in word problems.		

<Mental Maths>

a) 30 × 7 = 210 b) 40 × 4 = 160 c) 40 × 7 = 280

d) 50 × 5 = 250 e) 50 × 8 = 400

<Homework>

Solve:

a) P + 14 = 42

P = 42 – 14 = 28

b) Q – 27 = 19

Q = 19 + 27 = 46

c) 36 + X = 74

X = 74 – 36 = 38

d) 64 – Y = 27

Y = 64 – 27 = 37

Use column method to calculate.

L87: Solve an equation (2)

[1A] Solve:

a) 17 + P = 52

52	
17	P

P = 52 – 17 = 35

b) X +35 = 74

Q	
32	16

X = 74 – 35 = 39

c) 64 – Y = 27

74	
X	35

Y = 64 – 27 = 37

d) P – 36 = 25

P	
25	36

P = 25 + 36 = 61

[2A] Solve:

a) P + 24 = 51

51	
P	24

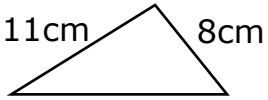
P = 51 – 24 = 27

b) 54 – Y = 19

54	
Y	19

Y = 54 – 19 = 35

[2B] The perimeter of a triangle is 32cm. Write an equation and solve it.



8 + 11 + □ = 32

19 + □ = 32

□ = 32 – 19 = 13

32	
19	

13cm

[R] Fill in the blanks.

a)

23	
8	15

23 – 8 = 15

b)

25	
16	9

25 – 9 = 16

c)

26	
8	18

8 + 18 = 26

Lesson	**88** /120	Curriculum	B4.2.2.2.6 (p.35) e.g.1; B4.2.2.2.7 (p.35) e.g.1
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Be able to solve part-part-whole or comparison context with an unknown.		
Introduction (sample)	• Let learners create a word problem that match e.g. 14 + ☐=21, 25 – ☐ =18. Ask what kind of problems they made.		
Teacher's Note	• The teacher's guide recommends part-part-whole method to solve equation at this level. • Do NOT forget the unit in word problems. • If there is no letter to define the unknow, use ☐.		

<Mental Maths>

a) 30 × 8 = 240 b) 40 × 5 = 200 c) 40 × 8 = 320

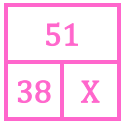
d) 50 × 6 = 300 e) 50 × 9 = 450

<Homework>

Afua had 51 okras. She used X okras and 38 were left. How many okras did she use?

51 – X = 38

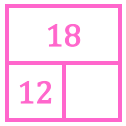
X = 51 – 38 = 13 13 okras



L88: Word problems of equations

[1A] Kojo's age and his sister's age add up to 18. If Kojo is 12, how old is his sister?

12 + ☐ = 18

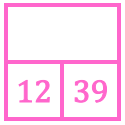


☐ = 18 – 12 = 6

6 years old

[1B] Eunice is Anita's older sister. The difference between their ages is 12 years. Anita is 39. How old is Eunice?

☐ – 39 = 12

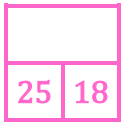


☐ = 39 + 12 = 51

51 years old

[2A] Police stopped 18 cars and allowed 25 cars to go. How many cars were there?

☐ – 18 = 25



☐ = 25 + 18 = 43

43 cars.

[2B] Afua had 64 oranges. She gave her friends P oranges and 28 were left. How many oranges did she give?

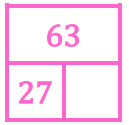
64 – P = 28

P = 64 – 28 = 36

36 oranges

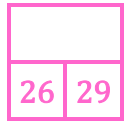
[R] Solve:

a) ☐ + 27 = 63



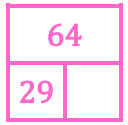
☐ = 63 – 27 = 36

b) ☐ – 29 = 26



☐ = 26 + 29 = 55

c) 64 – ☐ = 29



☐ = 64 – 29 = 35

Lesson	**89** /120	Curriculum	B4.3.1.1.2 (p.36) e.g.1-4
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Understand the meaning of symmetry.		
Introduction (sample)	• Give each learner a piece of paper. Let them fold it into half and cut it in any shape. Then, open the paper. The shape is symmetry. Let them rotate it. The line of symmetry can be any direction (e.g. vertical, horizontal or diagonal). • Teach the term "a line of symmetry" which is where the learners folded the paper. Let learners compare their shape and discuss.		
Teacher's Note	• If leaners do not have scissors, they can tear the paper. • Let learners remember a right angle.		

<Mental Maths>

a) 60 × 6 = 360 b) 60 × 8 = 480 c) 70 × 7 = 490

d) 70 × 9 = 630 e) 80 × 9 = 720

<Homework>

Answer as [1A].

C, G, J, M, N, P, S, U, X

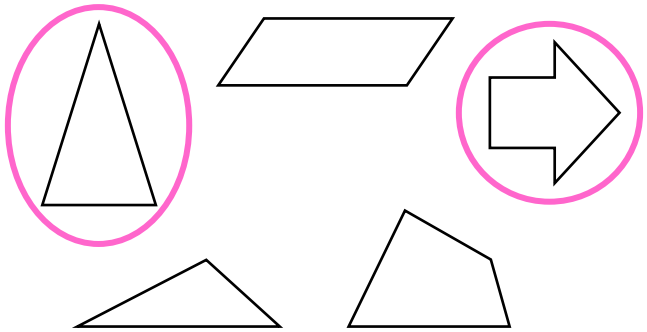
Understand that the line of symmetry is not always a vertical line.

L89: Understand symmetry

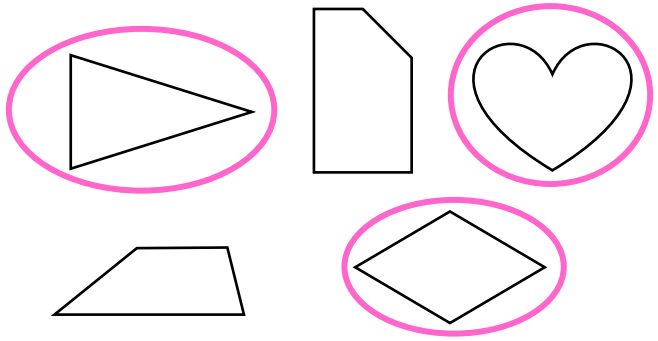
[1A] Circle symmetrical letters.

A, T, L, M N, O S, Z

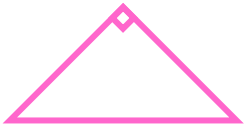
[1B] Circle symmetrical shapes.



[2A] Answer as [1B].



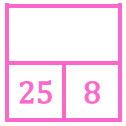
[2B] Draw a symmetrical right angle triangle.



[R] A teacher allowed 8 learners to go to the washroom.
There were 25 learners left in the room. How many learners are in the class?

□ − 8 = 25

□ = 25 + 8 = 33



Lesson	**90** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L86, [2]: L87, [3]: L88, [4]: L89.		

<Mental Maths>

a) 60 × 7 = 420 b) 60 × 9 = 540 c) 70 × 8 = 560

d) 80 × 8 = 640 e) 90 × 9 = 810

<Homework>

*No homework.

L90: Review

[1] Fill in the blanks.

a)

18	
5	13

b)

17	
13	4

c)

16	
6	10

18 – 5 = 13 17 – 4 = 13 6 + 10 = 16

[2] Solve:

a) ☐ + 14 = 51 b) ☐ – 26 = 16

51	
14	

32	16

☐ = 51 – 14 = 37 ☐ = 26 + 16 = 42

c) 29 + X = 86 d) 85 – Y = 36

86	
29	X

85	
36	Y

X = 86 – 29 = 57 Y = 85 – 36 = 49

[3] Kofi had 62 okras.
He used some and 38 were left.
How many okras did he use?

62 – ☐ = 38

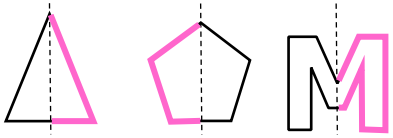
☐ = 62 – 38 = 24

62	
38	

24 okras

[4] Circle symmetrical letters.

(A), (E), L, (M) N, S, Z

Lesson	**91** /120	Curriculum	B4.3.1.1.1 (p.36) e.g.1,2; B4.3.1.1.2. (p.36) e.g.1-4
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to draw a symmerical figure.		
Introduction (sample)	• Let learners complete the shape to become symmetrical. 		
Teacher's Note	• Use graph sheets or exercise books with grid in this lesson. • We do NOT introduce the definition of symmetry.		

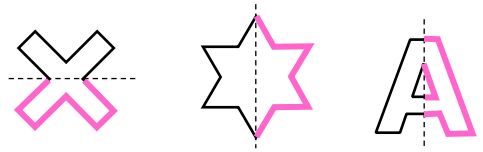
<Mental Maths>

a) 80 ÷ 4 = 20 b) 120 ÷ 2 = 60 c) 140 ÷ 2 = 70

d) 160 ÷ 2 = 80 e) 180 ÷ 3 = 60

<Homework>

Answer as [1A].

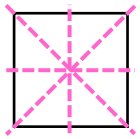


L91: Draw symmetrical shapes

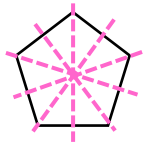
[1A] Complete the shape to become symmetrical.

[1B] Draw lines of symmetry.

rectangle



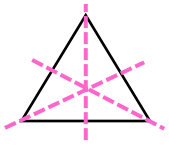
square



regular pentagon

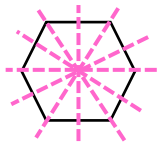
[2A] a) Draw lines of symmetry.

b) How many lines of symmentry are there?



3

Triangle



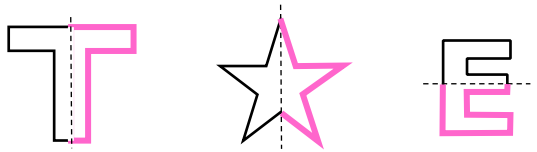
6

regular hexagon

0 parallelogram

No line of symmetry.

[2B] Answer as [1A].



[R] Circle symmetrical letters.

C E F, P, Q, S, T Y

Lesson	**92** /120	Curriculum	B4.3.2.1.1 (p.38) e.g. 1-3
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Understand the meaning of coordinate.		
Introduction (sample)	• Show how to draw a coordinate plane as shown on the board. Teach the term, coordinate, as a pair of numbers which indicate the position of a point on the x-y coordinate plane. • Take A (2,3) and B (–2 , 3) on the coordinate.		
Teacher's Note	• In this lesson, use a grid board if possible. Let learners use graph sheets or exercise books with grid in this lesson.		

<Mental Maths>

a) 90 ÷ 3 = 30 b) 120 ÷ 3 = 40 c) 140 ÷ 7 = 20

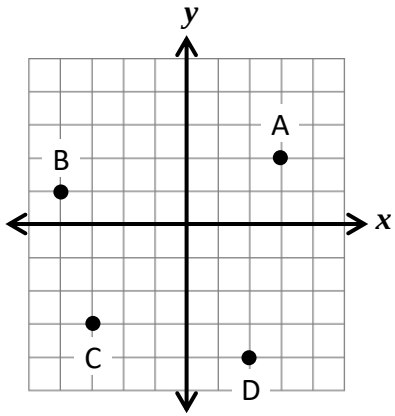
d) 160 ÷ 4 = 40 e) 180 ÷ 6 = 30

<Homework>

Answer as [1]

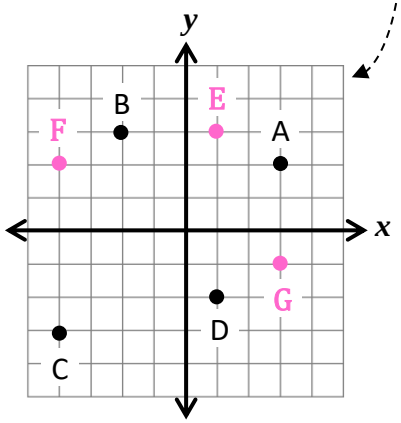
A(3, 2), B(–4, 1)

C(–3, –3), D(2, –4)



If you draw this grid, write it with the finest line.

L92: Understand coordinate

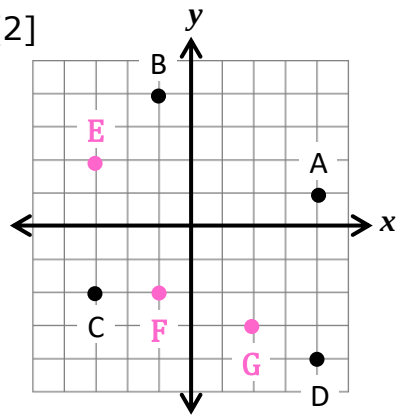


A(3, 2), B(–2, 3)

[1] a) Find the coordinates of the points. C(–4, –3), D(1, –2)

b) Locate E(1,3), F(–4, 2), G(3, –1).

[2]



a) Answer as [1].

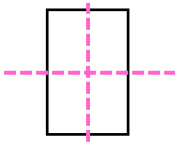
A(4, 1), B(–1, 4), C(–3, –2), D(–4, –4)

b) Locate E(–3, 2), F(–1, –2), G(2, –3).

[R] a) Draw lines of symmetry.

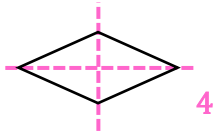
b) How many lines of symmentry are there?

Rectangle

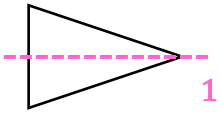


2

Rhombus



4



1

Lesson	**93** /120	Curriculum	B4.3.2.1.1 (p.38) e.g. 1-3
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Understand the relative position of points.		
Introduction (sample)	• Teach the term "north, south, east and west" showing the points A(2, 3), B(−2, 3), C(−2, −3) and D(2, −3). Ask the motion of points, e.g. A is east of B.		
Teacher's Note	• The direction is critical when reading a map. Understanding direction make it easier to reach the destination.		

<Mental Maths>

a) 100 ÷ 2 = 50 b) 120 ÷ 4 = 30 c) 150 ÷ 3 = 50

d) 160 ÷ 8 = 20 e) 180 ÷ 9 = 20

<Homework>

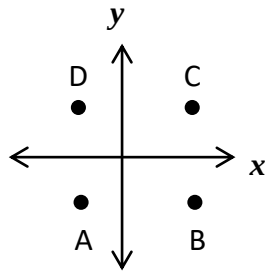
Answer as [1].

a) D is to the west of C.

b) A is to the south of D.

c) B is to the east of A.

d) C is to the north of B.



L93: Understand the position

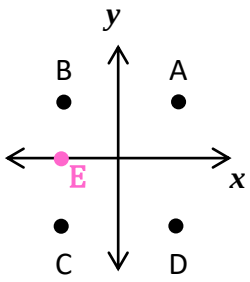
[1] Fill in the blanks.

a) A is to the east of B.

b) B is to the north of C.

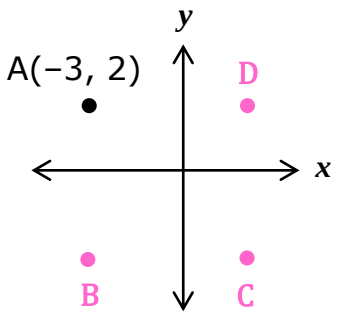
c) C is to the west of D.

d) D is to the south of A.



e) Locate E on the x-axis between B and C.

[2]



Locate B(−3, −3) and C(2, −3).

Fill in the blanks.

a) A is to the north of B.

b) B is to the south of A.

c) B is to the west of C.

d) Locate D to the north of C and east of A.

e) A is to the west of D.

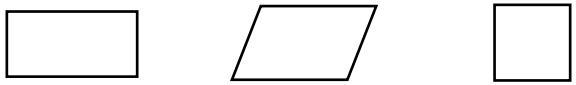
f) C is to the south of D.

[R] Find the position of points in [2].

a) D(2, 2)

b) E on the x-axis between A and B.

E(−3, 0)

Lesson	**94** /120	Curriculum	B4.3.3.1.1 (p.39) e.g. 1; B4.3.3.1.2 (p.39) e.g. 1,2
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Be able to find and measure the perimeter of a polygon.		
Introduction (sample)	• Find the perimeter of the things around learners, e.g. exercise book, eraser, desk, chair etc. • Draw the following diagram and revise that corresponding sides are equal in a rectangle and a parallelogram. All sides are equal in a square. 		
Teacher's Note	• Length of a rectangle is the longer side, while width is the shorter side.		

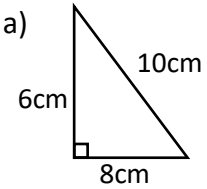
<Mental Maths>

a) 100 ÷ 5 = 20 b) 120 ÷ 6 = 20 c) 150 ÷ 5 = 30

d) 180 ÷ 2 = 90 e) 200 ÷ 4 = 50

<Homework> Answer as [1].

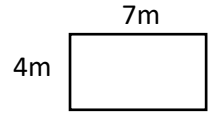
a)



$10 + 8 + 6 = 24$

24cm

b)



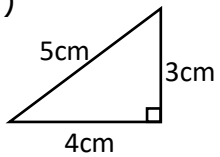
$7 + 4 + 7 + 4 = 22$

22m

L94: Find the perimeter of 2-D shapes

[1] Find the perimeter.

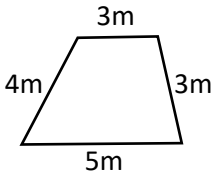
a)



$3 + 4 + 5 = 12$

12cm

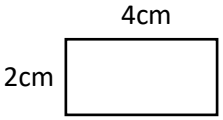
b)



$3 + 3 + 5 + 4 = 15$

15m

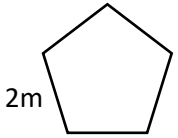
c)



$4 + 2 + 4 + 2 = 12$

12cm

d) Regular pentagon

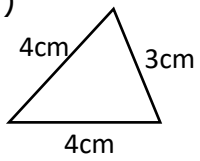


$5 \times 2 = 10$

10m

[2] Answer as [1].

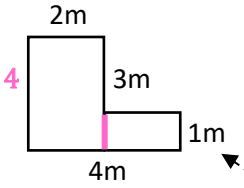
a)



$3 + 4 + 4 = 11$

11cm

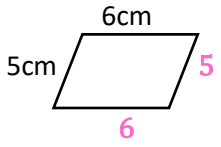
b)



$2+3+2+1+4+4= 16$

16m

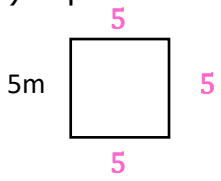
c) Parallelogram



$6 + 5 + 6 + 5 = 22$

22cm

d) Square



$4 \times 5 = 20$

20m

Encourage learners to use multiplication to find the perimeter.

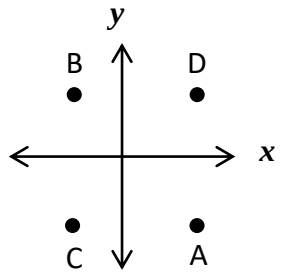
[R] Fill in the blanks.

a) A is to the east of C.

b) B is to the north of C.

c) B is to the west of D.

d) A is to the south of D.



The length of the opposite side can be found by adding or subtracting the sides.

Lesson	**95** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L91, [2]: L92, [3]: L93, [4]: L94.		

<Mental Maths>

a) 40 ÷ 2 = 20 b) 60 ÷ 3 = 20 c) 80 ÷ 2 = 40

d) 160 ÷ 4 = 40 e) 180 ÷ 9 = 20

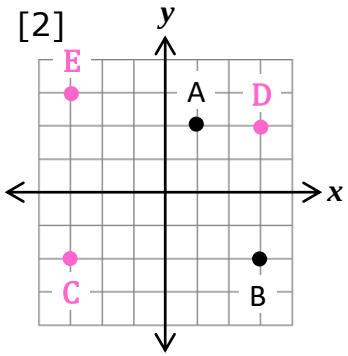
<Homework>

*No homework.

L95: Review

[1] Complete the shape to become symmetrical.

[2]



a) Find the position of points.

A(1, 2), B(3, –2)

b) Locate the coordinate of:

C(–3, –2), D(3, 2) and E(–3, 3).

[3] Use the coordinate in [2].

a) D is to the north of B.

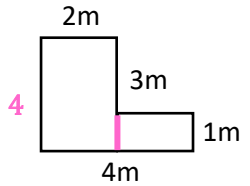
b) C is to the west of B.

c) B is to the south of D.

d) D is to the east of A.

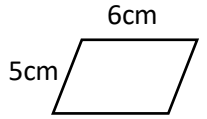
[4] Find the perimeter.

a)



2+3+2+1+4+4= 16, 16m

b) Parallelogram



6 + 5 + 6 + 5 = 22, 22cm

Lesson	**96** /120	Curriculum	B4.3.3.1.3 (p.40) e.g.1, 2; B4.3.3.1.4 (p.41) e.g.1
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Be able to draw a polygon with a given perimeter.		
Introduction (sample)	• Draw three rectangles with a perimeter of 20cm. Explain how to find the length from the perimeter and width. Their width are 3cm, 4cm and 5cm. 3cm 7cm □ 4cm 6cm □ 5cm 5cm □		
Teacher's Note	• Check if the longer side is drawn longer than the shorter side. <NG> 8cm 4cm □ <OK> 4cm 8cm □		

<Mental Maths>

a) 200 ÷ 5 = 40 b) 240 ÷ 4 = 60 c) 270 ÷ 3 = 90

d) 300 ÷ 5 = 60 e) 350 ÷ 5 = 70

<Homework>

Draw two rectangles with a perimeter of 24cm.

The lengths are 5cm and 3cm, respectively.

5cm 7cm □ 3cm 9cm □

The sum of two adjacent sides is 10cm (half of the perimeter).

L96: Draw 2-D shapes with given perimeter

[1A] Find the length of missing side.

a) A square whose perimeter is 28cm.

$28 \div 4 = 7,7\ cm$

b) A rectangle whose perimeter is 20cm and the width is 2cm.

$20 \div 2 = 10$

$10 - 2 = 8,8\ cm$

2cm □

[1B] Draw two rectangles with a perimeter of 20cm. The width is 4cm and 2cm, respectively.

4cm 6cm □ 2cm 8cm □

[2] a) Draw two rectangles with a perimeter of 14cm. The lengths are 4cm and 6cm, respectively.

3cm 4cm □ 1cm 6cm □

b) Draw a square whose perimeter is 12cm.

3cm □

$12 \div 4 = 3$

c) Draw a rhombus whose perimeter is 20cm.

5cm ◇

$20 \div 4 = 5$

[R] Find the perimeter.

a) 5cm, 4cm, 6cm, 7cm

$4 + 6 + 7 + 5 = 22$

22 cm

b) 3m, 4m, 2m, 3, 6m, 6

$2+6+6+3+4+3 = 24$

24 m

c) Parallelogram 7cm, 8cm, 7, 8

$8 + 7 + 8 + 7 = 30$

30cm

Lesson	**97** /120	Curriculum	B4.3.3.2.1 (p.41) e.g. 1-3
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Understand the meaning of area.		
Introduction (sample)	• Let learners make a 1cm × 1cm square. Make a group of four and let them make different shapes using the four 1cm² square. Let them copy the shape in their notebook. • Introduce the area as "the number of 1cm² or 1m² squares" and draw a 4 × 3 rectangle as shown on the board.		
Teacher's Note	• The concept of area is new for learners. • 1m² is read as "one square metre". • In this lesson, the grid line is shown in thin lines. Let learners use graph sheets or exercise books with grid in this lesson.		

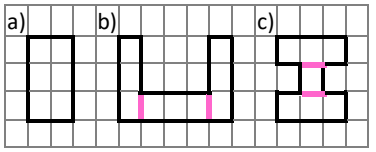
<Mental Maths>

a) 210 ÷ 3 = 70 b) 240 ÷ 6 = 40 c) 270 ÷ 9 = 30

d) 300 ÷ 6 = 50 e) 350 ÷ 7 = 50

<Homework>

Answer as [1A].



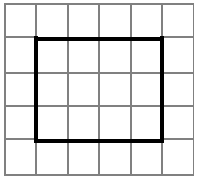
a) $4 \times 2 = 8$, 8 cm²

b) $3 \times 1 + 3 \times 1 + 3 \times 1 = 3 + 3 + 3 = 9$, 9 cm²

c) $3 \times 1 + 1 \times 1 + 3 \times 1 = 3 + 1 + 3 = 7$, 7 cm²

L97: Understand the area

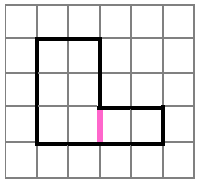
The area is shown by the number of 1cm² or 1m² squares.



4 × 3 = 12, 12 cm²

[1A] Find the area.

A square shows 1cm².

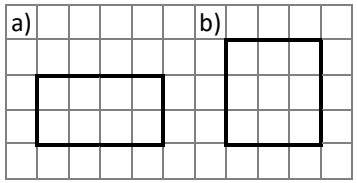


$3 \times 2 + 2 \times 1 = 6 + 2 = 8$

8 cm²

Encourage learners to use multiplication to find the area.

[1B] Which is larger?

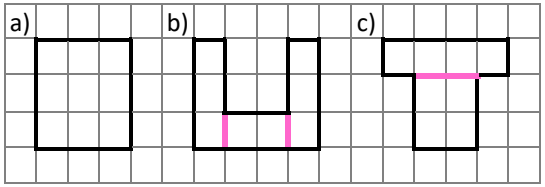


a) is 8. b) is 9

Hence, b) is larger.

[2] Answer as [1A].

A square shows 1m².



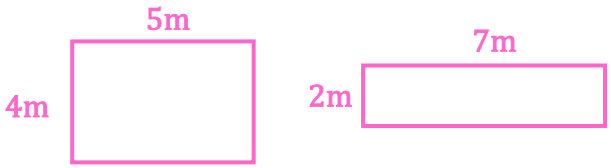
a) $3 \times 3 = 9$, 9 m²

b) $3 \times 1 + 2 \times 1 + 3 \times 1 = 3 + 2 + 3 = 8$

8 m²

c) $4 \times 1 + 2 \times 2 = 4 + 4 = 8$, 8 m²

[R] Draw rectangles with a perimeter of 18m. The lengths are 5m and 7m, respectively.



Lesson	**98** /120	Curriculum	B4.3.3.2.2 (p.41) e.g.1; B4.3.3.2.3 (p.42) e.g.1,2
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Be able to estimate the area.		
Introduction (sample)	• Draw 1cm² and 1m² on the board. Let learners estimate the size of board, ruler, door, smartphone, etc. • Make groups of four. Let them make a 1m² using their hand span.		
Teacher's Note	• It is important for learners to understand which unit is appropriate to use when they measure.		

<Mental Maths>

a) 210 ÷ 7 = 30 b) 240 ÷ 8 = 30 c) 280 ÷ 4 = 70

d) 320 ÷ 4 = 80 e) 360 ÷ 4 = 90

<Homework>

Answer as [1A].

a) Classroom m^2

b) House m^2

c) Chair cm^2

d) Textbook cm^2

L98: Estimate the area

[1A] Which unit is appropriate to measure the area, cm² or m²?

a) Classroom m^2

b) Desk cm^2

c) Chalkboard m^2

d) Exercise book cm^2

[1B] Use the area of an exercise book as referent to measure the following.

a) Desk 6 exercise books (sample)

b) Chair

Write your own answers.

[2A] Answer as [1A].

a) Eraser cm^2

b) House m^2

c) Door m^2

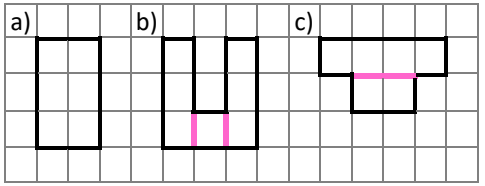
d) Smartphone cm^2

[2B] If the exercise book in [1B] is 400cm², how large is the desk?

$6 \times 400 = 2400$, 2400 cm^2 (sample)

[R] Find the area of the shapes.

A square shows 1cm².



a) $3 \times 2 = 6$, 6 cm^2

b) $3 \times 1 + 1 \times 1 + 3 \times 1 = 3 + 1 + 3 = 7$, 7 cm^2

c) $4 \times 1 + 2 \times 1 = 4 + 2 = 6$, 6 cm^2

Lesson	**99** /120	Curriculum	B4.3.3.2.4 (p.42) e.g. 1, 2
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Be able to find the area of rectangle using a formula.		
Introduction (sample)	• Divide a 4cm × 3cm rectangle into 1cm² square shown on the board. Find the area using multiplication. • Write the formula of finding the area of rectangle as shown on the board.		
Teacher's Note	• Let learners realise that using multiplication is faster and precise compared with counting the squares one by one. • Check the unit (cm² or m²).		

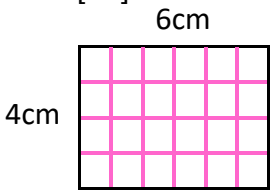
<Mental Maths>

a) 240 ÷ 3 = 80 b) 250 ÷ 5 = 50 c) 280 ÷ 7 = 40

d) 320 ÷ 8 = 40 e) 360 ÷ 6 = 60

<Homework>

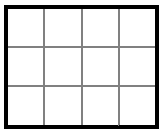
Answer as [1A].



24 cm²

"as shown on the board" in the introduction part is written here. Let learners copy it during introduction time.

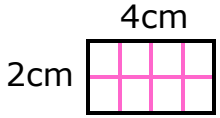
L99: Find the area of rectangles (1)



4 × 3 = 12

Length × width = Area

[1A] Divide the rectangle into 1cm² squares and find the area.



8 cm²

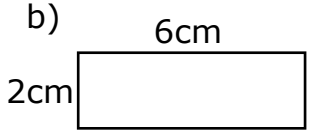
No need to divide into squares.

[1B] Find the area.

a)

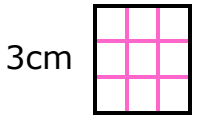
5 × 3 = 15, 15 m²

b)



6 × 2 = 12, 12 cm²

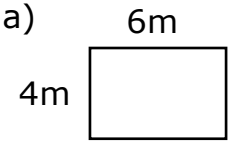
[2A] Answer as [1A].



9 cm²

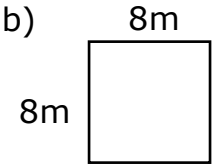
[2B] Answer as [1B].

a)



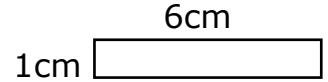
6 × 4 = 24, 24 m²

b)



8 × 8 = 64, 64 m²

c)



6 × 1 = 6, 6 cm²

[R] Which unit is appropriate to measure the area, cm² or m²?

a) Classroom m² b) Chair cm²

c) Chalkboard m² d) Eraser cm²

Lesson	**100** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L96, [2]: L97, [3]: L98, [4]: L99.		

<Mental Maths>

a) 250 ÷ 5 = 50 b) 280 ÷ 7 = 40 c) 300 ÷ 6 = 50

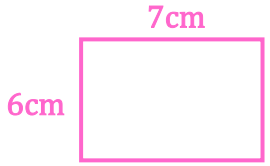
d) 320 ÷ 8 = 40 e) 360 ÷ 6 = 60

<Homework>

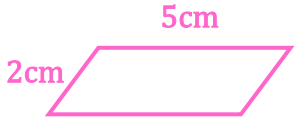
*No homework.

L100: Review

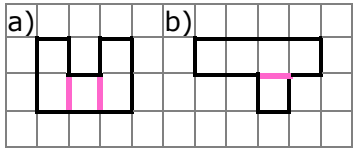
[1] a) Draw a rectangle with a perimeter of 26cm.
The width is 6cm.



b) Draw a parallelogram with a perimeter of 14cm and one of the sides is 2cm.



[2] Find the area of the shapes.
Each square shows 1cm².



a) 2 + 1 + 2 = 5, 5cm².

b) 4 + 1 = 5, 5cm².

[3] Which unit is appropriate to measure the area, cm² or m²?

a) Classroom m²

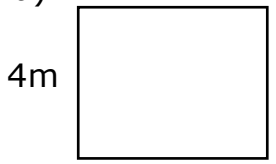
b) Desk cm²

c) Chalkboard m²

d) Exercise book cm²

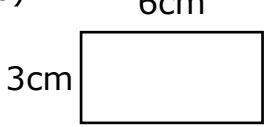
[4] Find the area.

a)



5 × 4 = 20, 20 m²

b)



6 × 3 = 18, 18 cm²

Lesson	**101** /120	Curriculum	B4.3.3.2.5 (p.42) e.g. 1
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Be able to find the area of rectangle and combined ones.		
Introduction (sample)	• Draw a rectangles with an area of 12cm² whose width are 2cm. Let learners find 2 × □ = 12. The length is 12 ÷ 2 = 6, 6cm. • Let learners draw two rectangles with the same area whose width are 1cm and 3cm. The length are 12cm and 4cm, respectively.		
Teacher's Note	• Learners need to separate the L shape into two or more rectangles.		

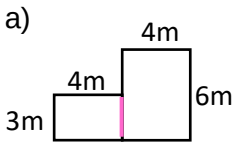
<Mental Maths>

a) 360 ÷ 9 = 40 b) 420 ÷ 7 = 60 c) 480 ÷ 8 = 60

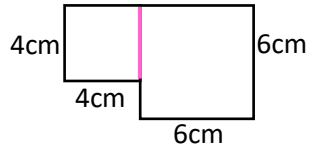
d) 560 ÷ 7 = 80 e) 640 ÷ 8 = 80

<Homework> Answer as [1B].

a)



b)



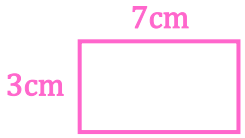
a) $4 \times 3 + 6 \times 4 = 12 + 24 = 36$, 36 m²

b) $4 \times 4 + 6 \times 6 = 16 + 36 = 52$, 52 cm²

Let learners draw a line to divide the L shapes into rectangels.

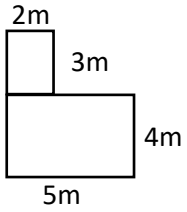
L101: Find the area of rectangles (2)

[1A] Draw a rectangle whose width is 3cm and the area is 21cm².



[1B] Find the area.

a)

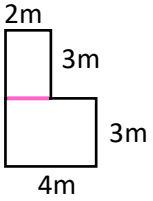


$3 \times 2 + 5 \times 4$

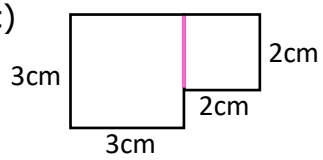
$= 6 + 20 = 26$

26m²

b)



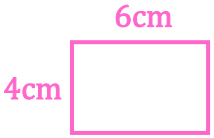
c)



b) $3 \times 2 + 4 \times 3 = 6 + 12 = 18$, 18 m²

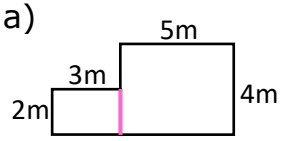
c) $3 \times 3 + 2 \times 2 = 9 + 4 = 13$, 13 cm²

[2A] Draw two rectangles with an area of 24cm². Their width are 3cm and 4cm, respectively.

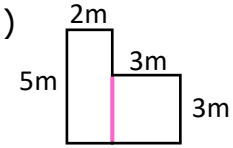


[2B] Divide the shape into rectangles and find the area.

a)



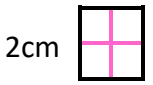
b)



a) $3 \times 2 + 5 \times 4 = 6 + 20 = 26$, 26 m²

b) $5 \times 2 + 3 \times 3 = 10 + 9 = 19$, 19 m²

[R] Divide the square into 1cm² squares and find the area.



4 cm²

Lesson	**102** /120	Curriculum	B4.3.3.2.5 (p.42) e.g. 1
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Understand the relationship between the perimeter and area.		
Introduction (sample)	• Draw three rectangles with a perimeter of 12cm. Their width are 1cm, 2cm and 4cm. Then, compare the area. The square has the largest area.		
Teacher's Note	• It is important to find the rule that the square has the largest area. • Note that squares are part of rectangles.		

<Mental Maths>

a) 400 ÷ 5 = 80 b) 450 ÷ 5 = 90 c) 490 ÷ 7 = 70

d) 560 ÷ 8 = 70 e) 720 ÷ 8 = 90

<Homework>

Draw the largest rectangles whose perimeter is 32cm.

The largest rectangle is a square.

$32 \div 4 = 8, 8 \times 8 = 64, 64\ cm^2$.

This dotted line separates exercise part 1 and 2.
Write all the black parts up to this line in exercise part 1.

L102: Find the area of rectangles (3)

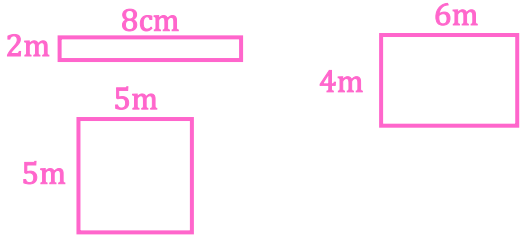
[1] There are three rectangles with a perimeter of 20m. Their widths are 2m, 4m and 5m, respectively.

a) Find the length of each rectangle.

$10 - 2 = 8, 8m$ $10 - 4 = 6, 6m$

$10 - 5 = 5, 5m$

b) Draw the rectangles.



[2A] Find the area of each rectangle in [1].

$8 \times 2 = 16, 16\ m^2$ $6 \times 4 = 24, 24\ m^2$

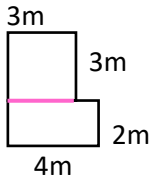
$5 \times 5 = 25, 25\ m^2$

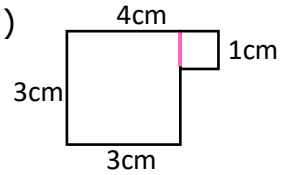
[2B] Find the area of the largest rectangles whose perimeter is 24cm.

The largest rectangle is a square.

$24 \div 4 = 6, 6 \times 6 = 36, 36\ cm^2$.

[R] Find the area.

a) 

b) 

a) $3 \times 3 + 4 \times 2 = 8 + 9 = 17, 17\ m^2$

b) $3 \times 3 + 1 \times 1 = 9 + 1 = 10, 10\ cm^2$

Skip review task if you don't have time.

Lesson	**103** /120	Curriculum	B4.3.3.3.1 (p.43) e.g. 1-4
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Be able to read time.		
Introduction (sample)	• Introduce how to read both analogue and digital clock. Tell both 12 hours and 24 hours clock. • Teach the term "quarter past", "half past", "quarter to" and "o'clock". 10 o'clock → 10:00 quarter past 10 → 10:15 half past 10 → 10:30 quarter to 10 → 10:45 • Draw a clock by omitting 1,2,4,5,7,8,10,11 to reduce time as shown on the board.		
Teacher's Note	• Let learners write 12, 3, 6, 9 first, then draw two tick marks between the numbers when drawing an analogue clock.		

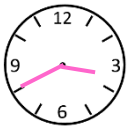
<Mental Maths>

a) 400 ÷ 8 = 50 b) 450 ÷ 9 = 50 c) 540 ÷ 6 = 90

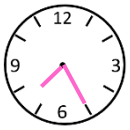
d) 630 ÷ 7 = 90 e) 720 ÷ 9 = 80

<Homework>

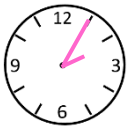
Answer as [1B].



03:40



07:25

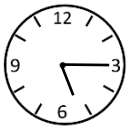


02:05

L103: Analogue and digital clock

[1A] What time is it?

a)



05:15

b)

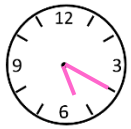
08:30

c)

10:45

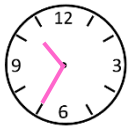
[1B] Draw the hand.

a)



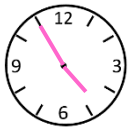
05:20

b)



10:35

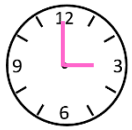
c)



04:55

[2A] Answer as [1B].

a)



03:00

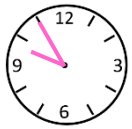
b)

10:00

c)

09:25

d)



09:55

[2B] Select the correct one.

8 a.m., 9 p.m., 6 a.m., 4 p.m.

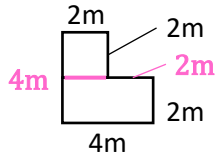
a) Wake up 6 a.m.

b) Go to school 8 a.m.

c) Leave school 4 p.m.

d) Sleep 9 p.m.

[R] Find the area and perimeter.



Area: $2 \times 2 + 4 \times 2 = 4 + 8 = 12, 12\ m^2$

Perimeter: $2 + 2 + 2 + 2 + 4 + 4 = 16, 16\ m$

Lesson	**104** /120	Curriculum	B4.3.3.3.1 (p.43) e.g.1-4, 6; B4.3.3.3.2 (p.44) e.g. 1-3
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Be able to find the duration mentally.		
Introduction (sample)	• Use a clock to measure the time to walk around the school building. • Skip count in 5 on the clock to identify the time of minutes.		
Teacher's Note	• Use both an analogue and a digital clock if you have in the introduction. • The duration in this lesson is limited to the change in hours or minutes only. In case of minutes, it is limited to the start or the end time is zero.		

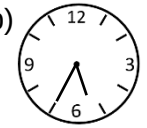
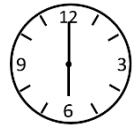
<Mental Maths>

a) 420 ÷ 6 = 70 b) 480 ÷ 6 = 80 c) 540 ÷ 9 = 60

d) 630 ÷ 9 = 70 e) 810 ÷ 9 = 90

<Homework>

Answer as [1B].

	Start	End	
a)	03:45	07:45	4 hours
b)			25 minutes

L104: Find the time and duration (1)

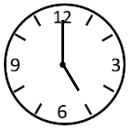
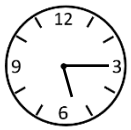
[1A] Convert to 24-hour format.

a) 5.00a.m.= 05:00

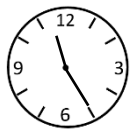
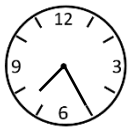
b) 5.30p.m.= 17:30

c)10.45p.m.= 22:45

[1B] How long is it?

	Start	End	
a)			15 minutes
b)			5 hours

[2A] Answer as [1B].

	Start	End	
a)			20 minutes
b)			40 minutes
c)			4 hours

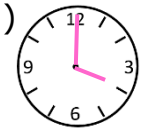
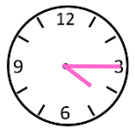
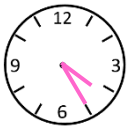
Skip count in 5 is helpful to find the answer in minutes.

[2B] Answer as [1A].

a) 9.00a.m.= 09:00

b) 9.30p.m.= 21:30

[R] Draw the hand.

a)	b)	c)
		
04:00	04:15	04:25

Lesson	**105** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L101, [2]: L102, [3]: L103, [4]: L104.		

<Mental Maths>

a) 360 ÷ 9 = 40 b) 490 ÷ 7 = 70 c) 640 ÷ 8 = 80

d) 720 ÷ 9 = 80 e) 810 ÷ 9 = 90

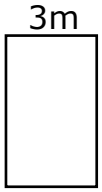
<Homework>

*No homework.

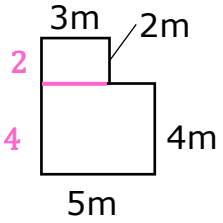
L105: Review

[1] Find the area.

a)



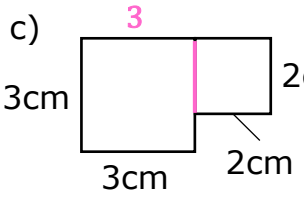
b)



a) $5 \times 3 = 15$, $15\ m^2$

b) $3 \times 2 + 5 \times 4 = 6 + 20 = 26$, $26\ cm^2$

c)



$3 \times 3 + 2 \times 2$

$= 9 + 4 = 13$, $13\ cm^2$

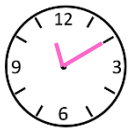
[2] Find the area of the largest rectangles whose perimeter is 36cm.

The largest rectangle is a square.

$36 \div 4 = 9$, $9 \times 9 = 81$, $81\ cm^2$.

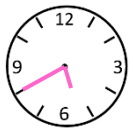
[3] Draw the hand.

a)



11:10

b)



05:40

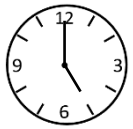
c)

09:05

[4] How long is it?

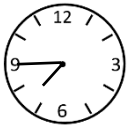
Start End

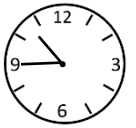
a)



25 minutes

b)





3 hours

Lesson	**106** /120	Curriculum	B4.3.3.3.1 (p.43) e.g.1-4, 6; B4.3.3.3.2 (p.44) e.g. 1-3
Teaching Tips	Divide the board into two parts and copy the teacher's guide as it is. After all the learners copied it, erase the left part to write the right part of the teacher's guide.		
Objective	Be able to find the duration by column method.		
Introduction (sample)	• Find the duration by column method as shown on the board. How long is it from: a) 2.25 to 6.55 b) 5.40 to 13.15		
Teacher's Note	• Time is base 60 and 12 system, while we use base 10 number system in most cases. • Even though drawing a number line to find time is helpful which is learnt in B3, we do not use the method because of the time constraints.		

<Mental Maths>

a) 20 × 30 = 600 b) 20 × 60 = 1200 c) 20 × 90 = 1800

d) 30 × 50 = 1500 e) 30 × 80 = 2400

<Homework>

Answer as [1B].

	Start	End	
a)	03:45	04:25	40 minutes
b)	08:45	13:55	5 hours 10 minutes
c)	03:45	12:25	8 hours 40 minutes

1 hours is regrouped to 60 minutes. 60 + 15 = 75 in b).

L106: Find the time and duration (2)

a) 6.55 − 2.25 = 4.30

b) 13.15 − 5.40 = 7.35 (12 → 13, 75 → 15)

[1] How long is it?

	Start	End	
a)	04:25	04:55	30 minutes
b)	20:40	21:15	45 minutes

a) 4.55 − 4.25 = 0.30

b) 21.15 − 20.30 = 0.45 (20 → 21, 75 → 15)

c)	07:20	15:40	8 hours 20 minutes
d)	13:50	20:20	6 hours 40 minutes

c) 15.40 − 7.20 = 8.20

d) 20.20 − 13.50 = 6.40 (19 → 20, 90 → 20)

[2] Answer as [1].

a)	07:10	07:42	32 minutes
b)	13:42	14:27	45 minutes

a) 7.42 − 7.10 = 0.32

b) 14.27 − 13.42 = 0.45 (13 → 14, 87 → 27)

c)	05:23	12:45	7 hours 22 minutes
d)	08:41	20:13	11 hours 32 minutes
e)	08:43	21:12	12 hours 39 minutes

c) 12.45 − 5.23 = 7.22

d) 20.13 − 8.41 = 11.32 (19 → 20, 73 → 13)

e) 21.12 − 8.43 = 12.39 (20 → 21, 72 → 12)

[R] Convert to 24-hour format.

a) 8.00a.m.= 08:00

b) 3.20p.m.= 15:20

c) 9.40p.m.= 21:40

Lesson	**107** /120	Curriculum	B4.3.3.3.1 (p.43) e.g.5; B4.3.3.3.3 (p.44) e.g.1
Teaching Tips	Encourage learners to write in their exercise books. The more they write, the better their writing skills will become.		
Objective	Understand the different forms of dates.		
Introduction (sample)	• Introduce the holidays in Ghana. ・Independence Day of Ghana 6th March ・Republic Day 1st July ・Founders' Day 4th August ・Farmers' Day 1st Friday December ・Worker's Day 1st May • Show the different format of recording dates as shown on the board. • Show how to conver minutes to time by "multiplying 60" or "dividing by 60".		
Teacher's Note	• This topic includes two topics. However, the conversion is a review of B3.		

<Mental Maths>

a) 20 × 40 = 800 b) 20 × 70 = 1400 c) 30 × 30 = 900

d) 30 × 60 = 1800 e) 30 × 90 = 2700

<Homework>

Show 03-Dec-23 in the format of:

a) v. 03.12.23

b) iii. 03-Dec-23

c) ii. 3rd December 2023

Calculate using multiplication and division.

L107: Calendar and conversion of time

i) Tuesday, 28th August 2018

ii) 28th August 2018

iii) 28-Aug-18 iv) 28/08/2018

v) 28.08.18

4 minutes = 240 seconds

4 × 60 = 240

180 minutes = 3 hours

180 ÷ 60 = 240

[1A] Show 05-Jun-24 in the format of:

a) v. 05.06.24 b) ii. 5th June 2024

[1B] Fill in the blanks.

a) 2 hours = 120 minutes 2 × 60 = 120

b) 180 seconds = 3 minutes

180 ÷ 60 = 3

c) 240 minutes = 4 hours 240 ÷ 60 = 4

[2A] Answer as [1B].

a) 5 minutes = 300 seconds

5 × 60 = 300

b) 6 hours = 360 minutes 6 × 60 = 360

c) 120 seconds = 2 minutes

120 ÷ 60 = 2

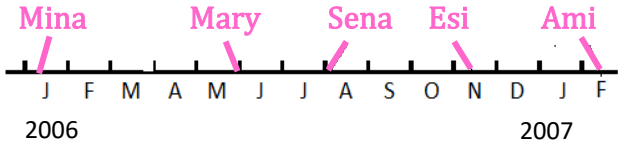
d) 180 minutes = 3 hours 180 ÷ 60 = 3

[2B] Write the date on the time line.

Ami 20-Feb-07 Esi 14-Nov-06

Mary 30-May-06 Mina 10-Jan-06

Sena 05-Aug-06



[R] Fill in the blanks.

a) 7.00p.m. = 19:00

b) 9.15p.m. = 21:15

Lesson	**108** /120	Curriculum	B4.4.1.1.1 (p.47) e.g.1-4; B4.4.1.1.2 (p.48) e.g.1-4
Teaching Tips	Have learners read the sentences, pointing to each word with your finger. Support learners if they have difficulty reading any of the words.		
Objective	Be able to read and interpret graphs of one-to-one and many-to-one correspondence.		
Introduction (sample)	• Draw the pictograph and ask questions verbally. • First, assume each circle shows 1. How many: a) mangoes did Ama get? 4 b) more bananas did Ama get than papaya? 5 – 2 = 3 • Next, assume each circle shows 5. c) papayas did Ama get? 2 × 5 = 10		
Teacher's Note	• In many-to-one correspondence, it is important to know the number each object represents.		

Mango	○○○○
Banana	○○○○○
Papaya	○○

<Mental Maths>

a) 20 × 50=1000 b) 20 × 80=1600 c) 30 × 40=1200

d) 30 × 70 = 2100 e) 40 × 40 = 1600

<Homework>

Answer by referring the data of [1].

a) What is the least popular food? Orange

How many learners like

b) banana? 5 learners

c) banana or pawpaw?

5 + 4 = 9, 9 learners

L108: Interpret pictographs (1)

[1] The graph shows the number of learners who like each fruit.

Banana	○○○○○
Orange	○○○
Pawpaw	○○○○

a) What is the most popular fruit?

Banana

How many:

b) learners like pawpaw? 4 learners

c) learners are in the class?

5 + 3 + 4 = 12, 12 learners

d) more learners like bananas than oranges?

5 – 3 = 2, 2 more learners

[2] Ama surveyed the means to the school.

Walk	○○○○○○
Bike	○○○
Car	○○

○:5 learners

How many learners:

a) walk to school?

6 × 5 = 30, 30 learners.

b) ride a bike to school?

3 × 5 = 15, 15 learners

c) are in the class?

30 + 15 + 10 = 55, 55 learners

d) By what means do learners go to school the least? Car

[R] Show 12.09.24 in the format of:

a) iv 12/09/24

b) iii 12-Sep-24

c) ii 12th September 2024

Lesson	**109** /120	Curriculum	B4.4.1.1.2 (p.48) e.g. 1-4
Teaching Tips	Encourage learners to memorise as many words as possible (not just 1 or 2 letters) when copying from the board.		
Objective	Be able to read and interpret graphs of many-to-one correspondence.		
Introduction (sample)	• Draw the table below. Find how many a circle represents by 12 ÷ 4 = 3. • Draw a pictograph to show the data.		
Teacher's Note	• In [1], 10 ÷ 5 = 2 which shows the number a circle represent.		

	Number of pupils	Number of circles
Fufu	12	4
Jollof	15	5
Waakye	6	2
Banku	18	6

Fufu	○○○○
Jollof	○○○○○
Waakye	○○
Banku	○○○○○○

Explain the data verbally, "the table shows the number of learners who got the illness last year."

<Mental Maths>

a) 40×50=2000 b) 40×70=2800 c) 40×90=3600

d) 50 × 60 = 3000 e) 50 × 80 = 4000

<Homework>

a) Fill in the table below.

	Number of pupils	Number of circles
Tuesday	12	4
Wednesday	9	3
Thursday	6	2

b) Draw a pictograph which represents the above data. *Answer omitted.

L109: Interpret pictographs (2)

[1] a) How many does a circle represent? 10 ÷ 5 = 2

	Number of pupils	Number of circles
Diarrhoea	10	5
Fever	14	7
Headache	6	3
Cold	12	6

b) Fill in the table above.

c) Draw a pictograph from the data.

Diarrhoea	○○○○○
Fever	○○○○○○○
Headache	○○○
Cold	○○○○○○

[2] Kwasi surveyed the favourite sports in his class.

	Number of pupils	Number of circles
Football	15	3
Volleyball	30	6
Hockey	10	2

a) Fill in the table above.

b) Answer as [1] c).

Football	○○○
Volleyball	○○○○○○
Hockey	○○

c) Which is the most popular sport?

Volleyball

[R] Ama surveyed the favourite fruits in her class.

Mango	○○○○
Banana	○○○
Papaya	○○○○○

○: 5 fruits

How many learners:

a) like mangoes?

4 × 5 = 20, 20 learners

b) did she survey in total?

20 + 15 + 25 = 60, 60 learners

Lesson	**110** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L106, [2]: L107, [3]: L108 & L109.		

<Mental Maths>

a) 40 × 60=2400 b) 40 × 80=3200 c) 50 × 50=2500

d) 50 × 70 = 3500 e) 50 × 90 = 4500

<Homework>

*No homework.

L110: Review

[1] How long is it?

	Start	End	
a)	05:20	06:40	1 hour 20 minutes
b)	07:35	13:17	5 hours 42 minutes
c)	09:47	17:42	7 hours 55 minutes

a)
$$\begin{array}{r} 6.40 \\ -\ 5.20 \\ \hline 1.20 \end{array}$$

b)
$$\begin{array}{r} {}^{12}\cancel{13}.{}^{77}\cancel{17} \\ -\ 7.35 \\ \hline 5.42 \end{array}$$

c)
$$\begin{array}{r} {}^{16}\cancel{17}.{}^{102}\cancel{42} \\ -\ 9.47 \\ \hline 7.55 \end{array}$$

[2] Show 05-Aug-24 in the format of the example.

a) 18.11.23 05.08.24

b) 18th November 2023 5th August 2024

[3] Afua surveyed the means to school.

	Number of pupils	Number of circles
Walk	12	4
Bike	18	6
Bus	9	3

How many:

a) learners are in the class?

12 + 18 + 9 = 39, 39 learners

b) should a circle represent?

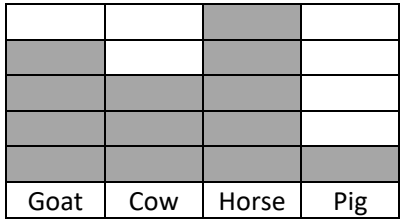
12 ÷ 4 = 3

c) Fill in the table above.

d) Draw a pictograph from the data.

Walk	○○○○
Bike	○○○○○○
Bus	○○○

Lesson	**111** /120	Curriculum	B4.4.1.1.3 (p.50) e.g. 1
Teaching Tips	When a learner presents, repeat exactly what they said. Do not summarise or rephrase.		
Objective	Understand the difference between pictographs and bar graphs.		
Introduction (sample)	• Draw the bar graph which shows the animals at Mr Wilmot's farm. Each grid means 10. Goat ○○○○ Cow ○○○ Horse ○○○○○ Pig ○ • Ask, e.g. Which animal is the most? How many cows are there?		
Teacher's Note	• When drawing a bar graph, some of the calibrations are omitted.		



<Mental Maths>

a) 60 × 60=3600 b) 60 × 80=4800 c) 70 × 70=4900

d) 70 × 90 = 6300 e) 80 × 90 = 7200

<Homework>

Answer by referring to the data of [1].

a) How many learners like yellow? 15 learners

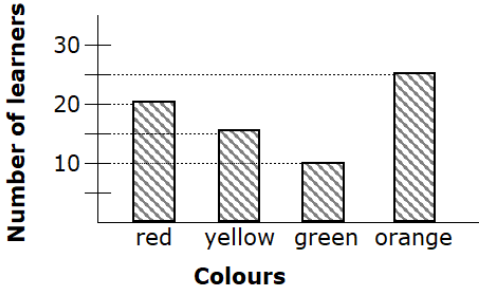
b) Which colour is the least popular? Green

c) What is the difference between the orange and green? 50 – 20 = 30, 30 learners

Explain how to find missing values between labeled points on a bar graph.

L111: Pictographs and bar graphs

[1] The bar graph shows the number of learners who like the colour.



Draw a pictograph of the bar graph.

Red	○○○○
Yellow	○○○
Green	○○
Orange	○○○○○

○: 5 learners

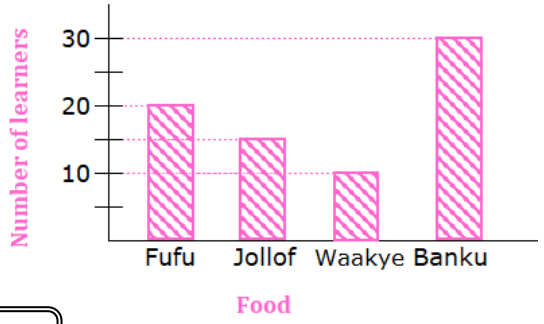
Show the labels of the axes.

[2] Kofi surveyed the popular food in his class.

Fufu	○○○○
Jollof	○○○
Waakye	○○
Banku	○○○○○○

○:5 learners

a) Draw a bar graph of the pictograph.



b) How many learners like jollof?

15 learners

c) Which food is the most popular?

Banku

[R] Kofi surveyed the favourite colours.

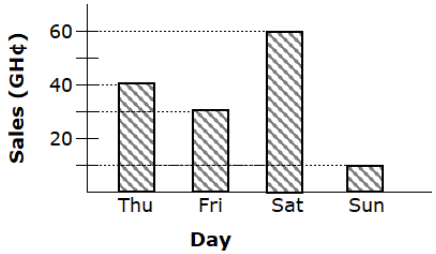
	Number of pupils	Number of circles
Red	12	3
Blue	24	6
Yellow	20	5

a) How many should a circle represent?

12 ÷ 3 = 4

b) Fill in the table.

Lesson	**112** /120	Curriculum	B4.4.1.1.4 (p.51) e.g. 1
Teaching Tips	While you are writing on the board, let learners copy it in their exercise books.		
Objective	Be able to interpret different types of graphs.		
Introduction (sample)	• Show some graphs used in a printed media such as newspapers or magazines. Discuss the information. (Use the following task if you cannot get printed media.) • The bar graph shows the sales of a shop. How much did the shop earn: a) on Thursday? ¢40 b) on Friday? ¢30 c) Which day is the least sale? Sunday		
Teacher's Note	• It is better if you can copy a printed media so that each learner can read it.		



<Mental Maths>

a) 60 × 70 = 4200 b) 60 × 90 = 5400 c) 70 × 80 = 5600

d) 80 × 80 = 6400 e) 90 × 90 = 8100

<Homework>

Answer by referring to the data of [1].

How many:

a) girls are in B3? 10 girls

b) boys are in KG? 20 boys

b) learners are in B2? 30 learners

L112: Graphs in daily life

[1] The pictograph shows the number of learners in a school.

KG	△○○
B1	△△○○
B2	△△○
B3	△○

△: 10 girls
○: 10 boys

How many:

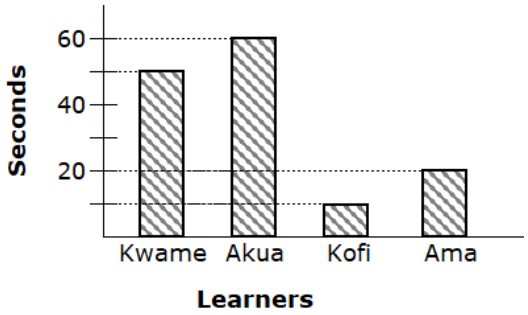
a) girls are in KG? 10 girls

b) boys are in B1? 20 boys

c) learners are in B3? 20 learners

Explain how to find missing values between labeled points on a bar graph.

[2] The bar graph shows the time four learners can take to hold their breath.



How long did:

a) Kofi hold his breath? 10 seconds

b) Kwame hold his breath? 50 seconds

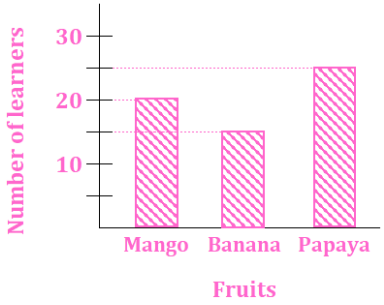
c) Who can hold the breath longest? Akua

[R] Akua surveyed the popular fruits in her class.

Mango	○○○○
Banana	○○○
Papaya	○○○○○

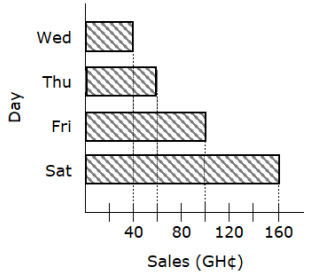
○:5 learners

Draw a bar graph of the pictograph.



Lesson	**113** /120	Curriculum	B4.4.1.2.1 (p.52) e.g.1-3
Teaching Tips	Have learners repeat what you said to check their understanding.		
Objective	Be able to draw a bar graph properly.		
Introduction (sample)	• Copy the table which shows the sales of a shop. • Draw a bar graph from the table step by step. Make sure to write the title and labelled axes. • Ask, which is the most and the least.		
Teacher's Note	• Check if learners write the title and labelled axis properly. • A key or legend is not necessary in this type of bar graph, hence they are omitted. • In this lesson, horizontal bar graphs are used.		

Day	Wed	Thu	Fri	Sat
Sales	40	60	100	160



<Mental Maths>

a) 20 × 20 = 400 b) 20 × 60 = 1200 c) 20 × 90 = 1800

d) 30 × 50 = 1500 e) 30 × 80 = 2400

<Homework>

The table shows the sales by a shop.

Day	Thu	Fri	Sat	Sun
Sales	60	40	100	140

a) Draw a bar graph from the table.

Answer omitted.

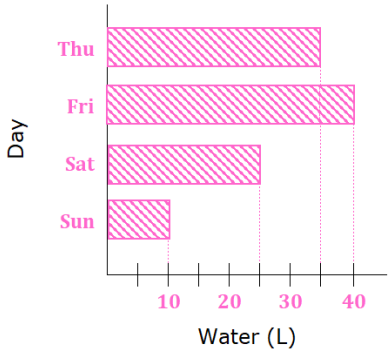
b) How much is the highest earning? ¢140

L113: Draw a bar graph

[1] The table shows the water usage by a school.

Day	Thu	Fri	Sat	Sun
Water (L)	35	40	25	10

a) Draw a bar graph.



b) How much water was used on Friday? 40L

c) On which day was the water used the least? Sunday

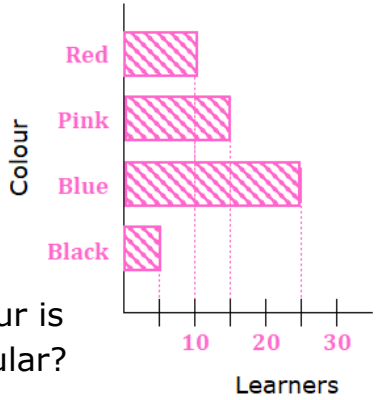
[2] The table shows the favourite colours of B4 learners.

Colour	Red	Pink	Blue	Black
Number of learners	10	15	25	5

a) How many learners like pink?

15 learners

b) Draw a bar graph.



c) Which colour is the least popular?

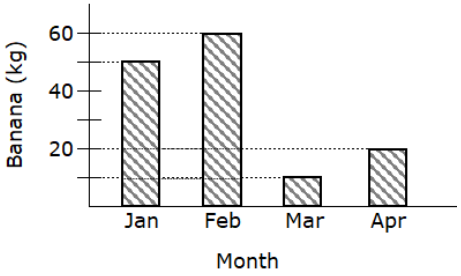
Black

[R] Use the pictograph drawn in L112 [1]. How many:

a) girls in P1? 20 girls

b) learners in P2? 30 learners

Lesson	**114** /120	Curriculum	B4.4.1.2.2 (p.53) e.g.1
Teaching Tips	Select some learners to distribute exercise books before the lesson begins.		
Objective	Be able to solve simple problems by interpreting bar graphs.		
Introduction (sample)	• Draw the bar graph. • Ask, how much bananas did the farmer collect: a) in March? 10kg b) in January and April? $50 + 20 = 70$, 70kg c) in the first three months of the year? $50 + 60 + 10 = 120$, 120kg d) In which month was the largest amount of bananas? February		
Teacher's Note	• In [2], let learner realise the last three months means October, November and December, which is the sum of a) and b).		



<Mental Maths>

a) $20 \times 40 = 800$ b) $20 \times 70 = 1400$ c) $30 \times 30 = 900$

d) $30 \times 60 = 1800$ e) $30 \times 90 = 2700$

<Homework>

Answer by referring to the data of [1].

How many laptops did the shop sell:

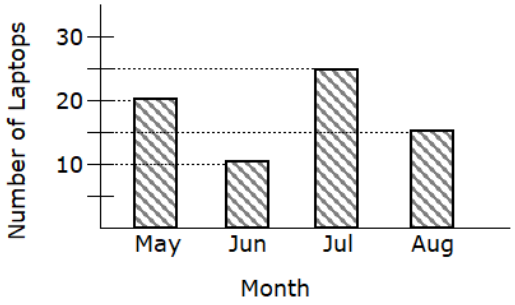
a) in June? 10 laptops

b) in July and August? $25 + 15 = 40$, 40 laptops

c) from May to July? $20 + 10 + 25 = 55$, 55 laptops

L114: Solve simple problems with data

[1] How many laptops did the shop sell:



a) in May? 20 laptops

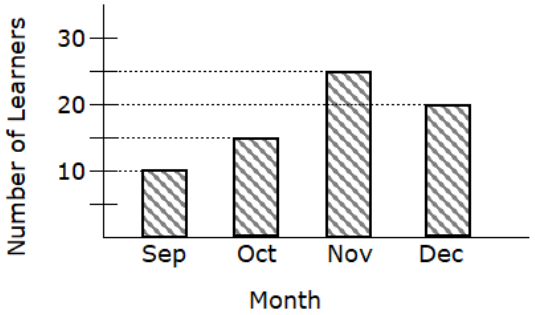
b) in June and August?

$10 + 15 = 25$, 25 laptops

c) in the four months?

$20 + 10 + 25 + 15 = 70$, 70 laptops

[2] How many learners were treated for malaria:



a) in November? 25 learners

b) in September and October?

$10 + 15 = 25$, 25 learners

c) in the last three months?

$15 + 25 + 20 = 60$, 60 learners

d) Which month was the most?

November

[R] Use the bar graph in L113 [1].

a) On which day was the water used the most? Friday

b) How much water was used in the weekend? $25 + 10 = 35$, 35L

Lesson	**115** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L111 & 112 [2]: L111 & L113, [3]: L114.		

<Mental Maths>

a) 20 × 50=1000 b) 20 × 80=1600 c) 30 × 40=1200

d) 30 × 70 = 2100 e) 40 × 40 = 1600

<Homework>

*No homework.

L115: Review

[1] The pictograph shows the number of learners in a school.

KG	△○○○
B1	△○○
B2	△△○○
B3	△○

△: 10 girls
○: 10 boys

How many:

a) boys are in KG? 30 boys

b) learners are in B3?

10 + 10 = 20, 20 learners

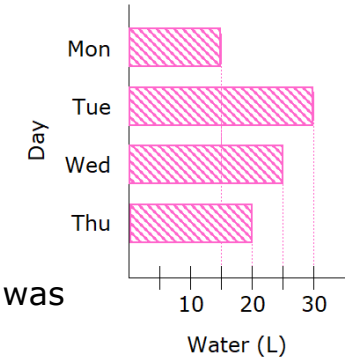
c) girls are in total?

10 + 10 + 20 + 10 = 50, 50 girls

[2] The table shows the water usage by a community.

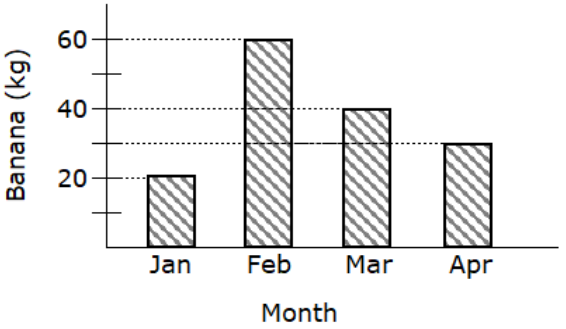
Day	Mon	Tue	Wed	Thu
Water (L)	15	30	25	20

a) Draw a bar graph.



b) In which day was the water used the least? Monday

[3]



How much bananas did the farmer collect:

a) in March and April?

40 + 30 = 70, 70 kg

b) in the first three months?

20 + 60 + 40 = 120, 120 kg

Lesson	**116** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.2,3
Teaching Tips	Have learners recall what they learned in previous lessons.		
Objective	Understand the relationship between the box method of multiplication and the area of rectangle.		
Introduction (sample)	• Draw a rectangle and solve 34 × 27 by box method as shown on the board. Explain the relationship between the two (which part it corresponding to which part).		
Teacher's Note	• This lesson should be taught before teaching the box method. However, because learners have not learnt finding the area of rectangle at that moment, we introduce this in this lesson.		

<Mental Maths>

a) 40 × 50 = 2000 b) 40 × 70 = 2800 c) 40 × 90 = 3600

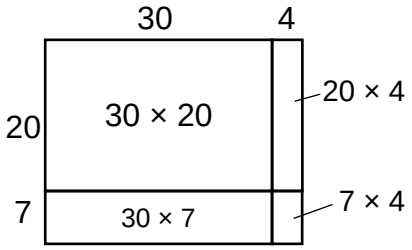
d) 50 × 60 = 3000 e) 50 × 80 = 4000

<Homework>

Solve:

a) 53 × 62 = 3,286 b) 72 × 37 = 2,664

L116: Box method and area of rectangle



×	30	4	
20	600	80	→ 680
7	210	28	→ 238
			918

[1] Solve:

a) 14 × 12 b) 31 × 13

×	10	4	
10	100	40	→ 140
2	20	8	→ 28
			168

×	30	1	
10	300	10	→ 310
3	90	3	→ 93
			403

c) 43 × 28 d) 44 × 66

×	40	3	
20	800	60	→ 860
8	320	24	→ 344
			1,204

×	40	4	
60	2,400	240	→ 2,640
6	240	24	→ 264
			2,904

[2A] Solve:

a) 32 × 24 b) 82 × 37

×	30	2	
20	600	40	→ 640
4	120	8	→ 128
			768

×	80	2	
30	2,400	60	→ 2,460
7	560	14	→ 574
			3,034

[2B] Kofi buys 12 bags of onions.
Each bag cost ¢42.
How much is the total cost?

12 × 42 = 504. The cost is ¢504.

[R] Use the bar graph in L114 [1].
How many laptops did the shop sell in the first three months?

20 + 10 + 25 = 55, 55 laptops

Lesson	**117** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.2,3
Teaching Tips	Organise the board so that others can understand the lesson content just by looking at it.		
Objective	Understand lattice method to solve (2-digit)×(1-digit).		
Introduction (sample)	• Show how to solve 26 × 4 and 54 × 23 by lattice method as shown on the board.		
Teacher's Note	• Lattice method may be a bit complex for learners. Learners who are comfortable with box method can use it instead of lattice method.		

<Mental Maths>

a) 40×60=2400 b) 40×80=3200 c) 50×50=2500

d) 50 × 70 = 3500 e) 50 × 90 = 4500

<Homework>

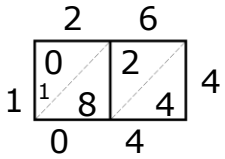
Solve:

a) 36 × 8 = 288 b) 73 × 4 = 292

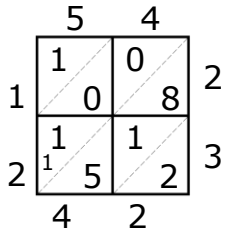
c) 53 × 62 = 3,286 d) 72 × 37 = 2,664

L117: Understand lattice method

26 × 4= 104

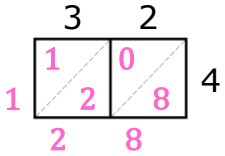


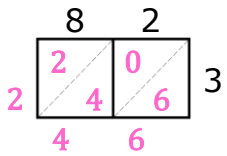
54 × 23 = 1,242



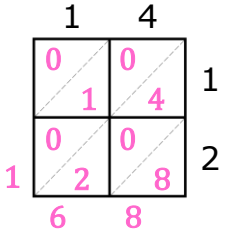
[1] Solve:

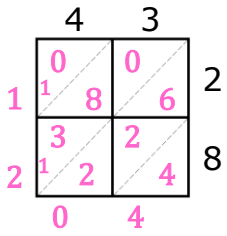
a) 32 × 4 = 128 b) 82 × 3 = 246





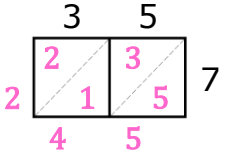
c) 14 × 12 = 168 d) 43 × 28 = 1,204

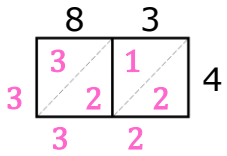




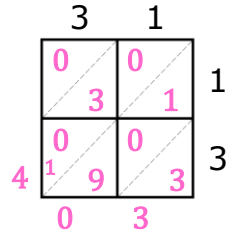
[2] Solve:

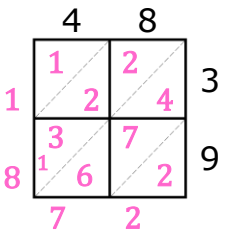
a) 35 × 7 = 245 b) 83 × 4 = 332





c) 31 × 13 = 403 d) 48 × 39 = 1,872





[R]

a) 13 × 15 d) 42 × 63

×	10	3	
10	100	30	→130
5	50	15	→ 65
			195

×	40	2	
60	2400	120	→2520
3	120	6	→ 126
			2646

Lesson	**118** /120	Curriculum	B4.1.2.3.1 (p.16) e.g.2,3
Teaching Tips	If more than half of the learners cannot solve the first task, explain how to solve it using it.		
Objective	Understand lattice method to solve (2-digit) × (2-digit).		
Introduction (sample)	• Show how to solve 28 × 34 by lattice method and by box method as shown on the board. • Ask learners: a) which is faster? b) which is simpler?		
Teacher's Note	• Lattice method for (2-digit) × (2-digit) has more complex rules. Make sure which direction to read the numbers. • This teacher's guide recommend to use column method. However, because the column method is the topic in B5, we use box method instead. Lattice method is the most complex method among the three.		

<Mental Maths>

a) 60×60=3600 b) 60×80=4800 c) 70×70=4900

d) 70 × 90 = 6300 e) 80 × 90 = 7200

<Homework>

Answer as [1].

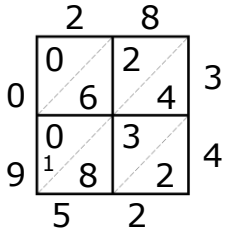
a) 13 × 13 = 169

b) 23 × 14 = 322

c) 27 × 45 = 1,215

L118: Compare lattice and box method

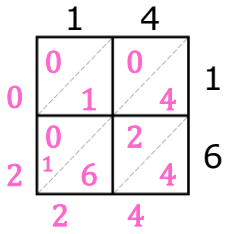
28 × 34



×	20	8	
30	600	240	→ 840
4	80	32	→ 112
			952

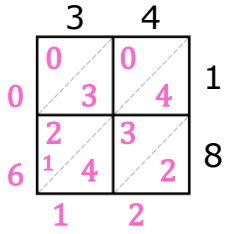
[1] Solve by lattice and box method.

a) 14 × 16



×	10	4	
10	100	40	→ 140
6	60	24	→ 84
			224

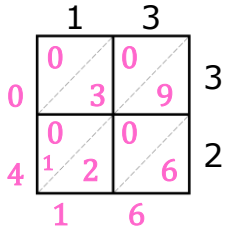
b) 34 × 18



×	30	4	
10	300	40	→ 340
8	240	32	→ 272
			612

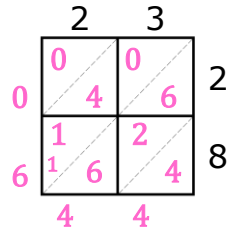
[2] Answer as [1].

a) 13 × 32



×	10	3	
30	300	90	→ 390
2	20	6	→ 26
			416

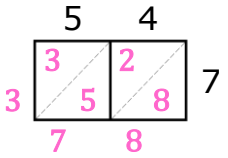
b) 23 × 28

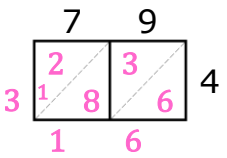


×	20	3	
20	400	60	→ 460
8	160	24	→ 184
			644

[R] Solve:

a) 54 × 7 = 378 b) 79 × 4 = 316





Lesson	**119** /120	Curriculum	B4.1.2.5.1 (p.17) e.g.1,2
Teaching Tips	Have learners copy everything from the board into their exercise books.		
Objective	Learn division as a repeated subtraction and use big 7.		
Introduction (sample)	• Solve division in repeated subtraction (e.g. 12 ÷ 3) showing bottle tops. • Show 68 ÷ 4 using big 7. • Explain dividing 0 by any number is 0, e.g.0 ÷ 3=0, 0 ÷ 6 = 0 or 0 ÷ 15 = 0.		
Teacher's Note	• Learners need to be fluent in multiplication. • Since long division is more general method than big 7 method, this lesson is just an introduction of different method. If learners are familiar with long division method, they should use it.		

4 | 6 8 | 10
4 0
2 8 | 7
2 8
0 | 17

<Mental Maths>

a) 60×70=4200 b) 60×90=5400 c) 70×80=5600

d) 80 × 80 = 6400 e) 90 × 90 = 8100

<Homework>

Solve:

a) 18 ÷ 6

18 − 6 = 12
12 − 6 = 6
6 − 6 = 0
} 3

18 ÷ 6 = 3

b) 28 ÷ 7

28 − 7 = 21
21 − 7 = 12
14 − 7 = 6
7 − 7 = 0
} 4

28 ÷ 7 = 4

L119: Understand division as repeated subtraction and big 7

[1A] Solve the divisions by repeated subtraction.

a) 12 ÷ 4

12 − 4 = 8
8 − 4 = 4
4 − 4 = 0
} 3

12 ÷ 4 = 3

b) 24 ÷ 6

24 − 6 = 18
18 − 6 = 12
12 − 6 = 6
6 − 6 = 0
} 4

24 ÷ 6 = 4

[1B] Solve:

a) 81 ÷ 3

3 | 8 1 | 20
6 0
2 1 | 7
2 1
0 | 27

b) 72 ÷ 6

6 | 7 2 | 10
6 0
1 2 | 2
1 2
0 | 12

c) 93 ÷ 3

3 | 9 3 | 30
9 0
3 | 1
3
0 | 31

[2] Solve:

a) 72 ÷ 3

3 | 7 2 | 20
6 0
1 2 | 4
1 2
0 | 24

b) 84 ÷ 6

6 | 8 4 | 10
6 0
2 4 | 4
2 4
0 | 14

c) 84 ÷ 4

4 | 8 4 | 20
8 0
4 | 1
4
0 | 21

d) 184 ÷ 4

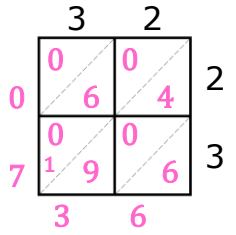
4 | 1 8 4 | 40
1 6 0
2 4 | 6
2 4
0 | 46

e) 296 ÷ 8

8 | 2 9 6 | 30
2 4 0
5 6 | 7
5 6
0 | 37

[R] Solve by lattice and box method.

32 × 23 = 736



×	30	2	
20	600	40	→ 640
3	90	6	→ 96
			736

Lesson	**120** /120	Curriculum	Review Lesson
Teaching Tips	Have learners solve exercises independently. The more they practise, the better they will understand the content.		
Objective	Ensure the understanding of the topic.		
Introduction (sample)	*No introduction in a review lesson.		
Teacher's Note	• Please write all the questions on the board and give learners 30 minutes to answer them. After 30 minutes, please conduct peer marking. • You can skip this lesson if you are behind the scheme of work. • The tasks corresponding to each lesson are as follows: [1]: L116, [2]: L117, [3]: L118, [4]: L119.		

<Mental Maths>

a) 50 × 50 = 2500 b) 60 × 60 = 3600 c) 70 × 70 = 4900

d) 80 × 80 = 6400 e) 90 × 90 = 8100

<Homework>

*No homework.

L120: Review

[1] Solve by box method.

a) 43 × 5

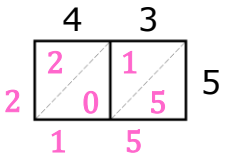
×	40	3	
5	200	15	→ 215

b) 24 × 38

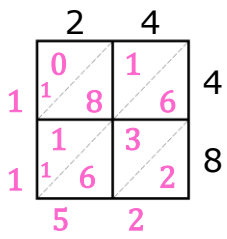
×	20	4	
40	800	160	→ 960
8	160	32	→ 192
			1152

[2] Solve by lattice method.

a) 43 × 5 = 215



b) 24 × 48 = 1,152



[3] Kofi buys 13 bags of onions.

Each bag cost ¢42.

How much is the total cost?

A. 13 × 42 = 546. The cost is ¢546.

[4] Solve:

a) 75 ÷ 3

3	7 5	20
	6 0	
	1 5	5
	1 5	
	0	25

b) 84 ÷ 4

4	8 4	20
	8 0	
	4	1
	4	
	0	21

c) 172 ÷ 4

4	1 7 2	40
	1 6 0	
	1 2	3
	1 2	
	0	43

Lesson	-	Curriculum	Annual Review Lesson
Teaching Tips	*No teaching tips.		
Objective	Ensure the understanding of the topics learnt in B4.		
Introduction (sample)	Show how to add and subtract the fractions: 1. with the same denominators. a) $\frac{4}{5}+\frac{2}{5}=\frac{6}{5}$ b) $\frac{6}{4}-\frac{1}{4}=\frac{5}{4}$ 2. with different denominators. a) $\frac{1}{4}+\frac{5}{8}=\frac{2}{8}+\frac{5}{8}=\frac{7}{8}$ b) $\frac{4}{6}-\frac{3}{12}=\frac{8}{12}-\frac{3}{12}=\frac{5}{12}$ • The difference between 1 and 2 is to make the equivalent fraction to make the denominators the same.		
Teacher's Note	• For further information, see L58-61. • Learners do not have to simplify the answer.		

<Mental Maths>

*No mental maths.

<Homework>

Solve:

a) $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}$ b) $\frac{9}{7}-\frac{3}{7}=\frac{6}{7}$

c) $\frac{3}{4}+\frac{3}{8}=\frac{9}{8}$ d) $\frac{13}{15}-\frac{2}{5}=\frac{7}{15}$

e) $\frac{1}{6}+\frac{5}{18}=\frac{8}{18}$ f) $\frac{19}{20}-\frac{3}{5}=\frac{7}{20}$

The following five lessons are review of B3 for those who have done all the 120 allocated lessons.

Review of B4

[1] Solve:

a) $\frac{1}{4}+\frac{2}{4}=\frac{3}{4}$ b) $\frac{4}{5}-\frac{3}{5}=\frac{1}{5}$

c) $\frac{2}{3}+\frac{5}{3}=\frac{7}{3}$ d) $\frac{5}{4}-\frac{3}{4}=\frac{2}{4}$

e) $\frac{3}{5}+\frac{3}{10}$ f) $\frac{3}{4}-\frac{5}{12}$

$=\frac{6}{10}+\frac{3}{10}=\frac{9}{10}$ $=\frac{9}{12}-\frac{5}{12}=\frac{4}{12}$

[2] Solve:

a) $\frac{4}{5}+\frac{3}{5}=\frac{7}{5}$ b) $\frac{10}{9}-\frac{3}{9}=\frac{7}{9}$

c) $\frac{1}{4}+\frac{3}{8}$ d) $\frac{3}{5}-\frac{3}{15}$

$=\frac{2}{8}+\frac{3}{8}=\frac{5}{8}$ $=\frac{9}{15}-\frac{3}{15}=\frac{6}{15}$

e) $\frac{5}{6}+\frac{11}{12}$ f) $\frac{19}{16}-\frac{3}{4}$

$=\frac{10}{12}+\frac{11}{12}=\frac{21}{12}$ $=\frac{19}{16}-\frac{12}{16}=\frac{7}{16}$

[R] Solve the divisions by repeated subtraction.

a) 12 ÷ 3

$12-3=9$
$9-3=6$
$6-3=3$
$3-3=0$ } 4

b) 24 ÷ 8

$24-8=16$
$16-8=12$
$8-8=0$ } 3

Multiply the same numbers to both the denominator and the numerator.

Lesson	-	Curriculum	Annual Review Lesson
Teaching Tips	*No teaching tips.		
Objective	Ensure the understanding of the topics learnt in B4.		
Introduction (sample)	• Show how to solve the following by column method. a) 3.4 + 1.9 = 5.3 b) 3.4 – 1.9 = 1.5 c) 2.34 + 0.19 = 2.53 d) 2.54 – 0.36 = 2.18		
Teacher's Note	• For further information, see L69-L73. • Use column method to add and subtract decimal fractions. Indicate the decimal point clearly as shown below. • The numbers in the questions are carefully chosen to practice many different variations of addition and subtraction (without regrouping, without tenth, with regrouping).		

<Mental Maths>

*No mental maths.

<Homework>

Solve:

a) 2.4 + 5.7 = 8.1 b) 7.3 – 3.4 = 3.9

c) 0.63 + 0.42 = 1.05 d) 1.03 – 0.31 = 0.72

e) 2.43 + 5.71 = 8.14 f) 7.34 – 3.41 = 3.93

Indicate the decimal point clearly as shown below.

Align the decimal points.

Review of B4

[1] Solve:

a)
	O	t
	1.	2
+	3.	6
	4.	8

b)
	O	t
	5.	4
–	3.	1
	2.	3

c)
	1	
	2.	5
+	3.	9
	6.	4

d)
	5	11
	6.	1
–	2.	9
	3.	2

e) 2.34+0.72

		1	
	2.	3	4
+	0.	7	2
	3.	0	6

f) 4.32 – 0.81

	3	13	
	4.	3	2
–	0.	8	1
	3.	5	1

[2] Solve:

a) 2.9 + 4.5

		1	
	2.	9	
+	4.	5	
	7.	4	

b) 5.2 – 3.8

	4	12	
	5.	2	
–	3.	8	
	1.	4	

c) 2.49 + 1.15

		1	
	2.	4	9
+	1.	1	5
	3.	6	4

d) 3.92 – 1.53

	8	12	
	3.	9	2
–	1.	5	3
	2.	3	9

e) 6.31 + 0.69

	1	1	
	6.	3	1
+	0.	6	9
	7.	0	0

f) 5.2 + 0.63

	4	11	10
	5.	2	
–	0.	6	3
	4.	5	7

[R] Solve:

a) $\frac{2}{6}+\frac{5}{6}=\frac{7}{6}$

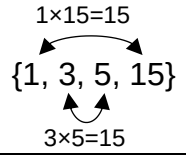
b) $\frac{11}{5}-\frac{7}{5}=\frac{4}{5}$

c) $\frac{5}{9}+\frac{2}{3}$

$=\frac{5}{9}+\frac{6}{9}=\frac{11}{9}$

d) $\frac{13}{20}-\frac{2}{5}$

$=\frac{13}{20}-\frac{8}{20}=\frac{5}{20}$

Lesson	-	Curriculum	Annual Review Lesson
Teaching Tips	*No teaching tips.		
Objective	Ensure the understanding of the topics learnt in B4.		
Introduction (sample)	• Let learners find multiples of 4 up to 30 {4, 8, 12, 16, 20, 24, 28} and multiples of 6 up to 30. {6, 12, 18, 24, 30}. Then, let them find the common multiples of 4 and 6 by circling the common multiples. {12, 24} • Let learners find factors of 12 {1, 2, 3, 4, 6, 12} and factors of 18 {1, 2, 3, 6, 9, 18}. Then, let them find the common factors of 12 and 18 by circling the common factors. {1, 2, 3, 6}		
Teacher's Note	• To find the factors, it is important to know that if you multiply the both ends, the product is the original number. e.g. The diagram on the right shows the factors of 15. 		

<Mental Maths>

*No mental maths.

<Homework>

a) Find the common multiples of 4 and 6 up to 40. {12, 24, 36}

b) Find the common factors of 8 and 20. {1, 2, 4}

Review of B4

[1A] Find the multiples of:

a) 3 up to 20. {3, 6, 9, 12, 15, 18}

b) 6 up to 40. {6, 12, 18, 24, 30, 36}

c) 8 up to 40. {8, 16, 24, 32, 40}

d) 9 up to 40. {9, 18, 27, 36}

[1B] Find the common multiples of:

a) 3 and 6 up to 20. {6, 12, 18}

b) 6 and 9 up to 40. {18, 36}

c) 6 and 8 up to 40. {24}

Find common multiples by the multiples in [1A].

[2A] Find the factors of:

a) 6. {1, 2, 3, 6} b) 7. {1, 7}

c) 12. {1, 2, 3, 4, 6, 12}

d) 14. {1, 2, 7, 14}

e) 15. {1, 3, 5, 15}

[2B] Find the common factors of:

a) 6 and 12. {1, 2, 3, 6}

b) 7 and 14. {1, 7}

c) 12 and 15. {1, 3}

Find common factors by the factors in [2A].

[R] Solve:

a) 4.9 + 3.5 b) 6.2 – 3.7

$$\begin{array}{r} {\scriptstyle 1} \\ 4.9 \\ +\ 3.5 \\ \hline 8.4 \end{array} \qquad \begin{array}{r} {\scriptstyle 5\ 12} \\ 6.\not{2} \\ -\ 3.7 \\ \hline 2.5 \end{array}$$

c) 1.69 + 1.2 d) 4.81 – 1.53

$$\begin{array}{r} {\scriptstyle 1} \\ 1.69 \\ +\ 1.25 \\ \hline 2.94 \end{array} \qquad \begin{array}{r} {\scriptstyle 7\ 11} \\ 4.\not{8}\ 1 \\ -\ 1.53 \\ \hline 3.28 \end{array}$$

Lesson	-	Curriculum	Annual Review Lesson
Teaching Tips	*No teaching tips.		
Objective	Ensure the understanding of the topics learnt in B4.		
Introduction (sample)	• Show how to solve problems using long division. e.g. 735÷5=147 and 492÷4=123.		
Teacher's Note	• For further information, see L47-L49.		

<Mental Maths>

*No mental maths.

<Homework>

Solve:

a) 501 ÷ 3 = 167 b) 704 ÷ 4 = 176

c) 825 ÷ 3 = 275 d) 258 ÷ 3 = 86

e) 536 ÷ 8 = 67 f) 497 ÷ 7 = 71

Review of B4

[1] Solve:

a) $3\overline{)45}$ → 15, 3, 15, 15, 0

b) $4\overline{)84}$ → 21, 8, 4, 4, 0

c) $6\overline{)816}$ → 136, 6, 21, 18, 36, 36, 0

d) $3\overline{)255}$ → 85, 24, 15, 15, 0

[2] Solve:

a) 76 ÷ 4 → 19, 4, 36, 36, 0

b) 69 ÷ 3 → 23, 6, 9, 9, 0

c) 705 ÷ 3 → 235, 6, 10, 9, 15, 15, 0

d) 432 ÷ 2 → 216, 4, 3, 2, 12, 12, 0

e) 544 ÷ 8 → 68, 48, 64, 64, 0

[R] Refer to the previous lesson.

Find the LCM of [1B].

a) 6 b) 18 c) 24

Find the HCF of [2B].

a) 6 b) 7 c) 3

Lesson	-	Curriculum	Annual Review Lesson
Teaching Tips	*No teaching tips.		
Objective	Ensure the understanding of the topics learnt in B4.		
Introduction (sample)	• Revise how to find the area of rectangles which is length × width = area. • Find the area of L shape. • Draw three rectangles with a perimeter of 12cm. Their widths are 1cm, 2cm and 3cm. Then, compare the area. The square has the largest area. 1cm 5cm　2cm 4cm　3cm 3cm		
Teacher's Note	• For further information, see term 3 lessons 11 and 12.		

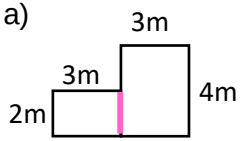
<Mental Maths>

*No mental maths.

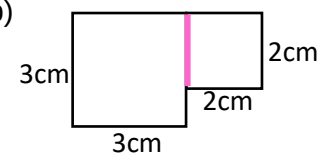
<Homework>

Answer as [1A].

a)



b)



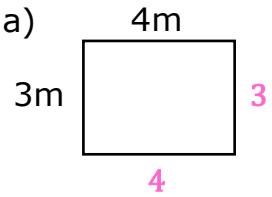
a) $3 \times 2 + 4 \times 3 = 6 + 12 = 18,\ 18\ m^2$

b) $3 \times 3 + 2 \times 2 = 9 + 4 = 13,\ 13\ cm^2$

Review of B4

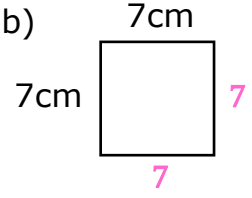
[1A] Find the area.

a)



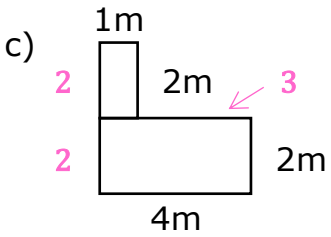
$4 \times 3 = 12,\ 12\ m^2$

b)



$7 \times 7 = 49,\ 49\ cm^2$

c)



$2 \times 1 + 4 \times 2 = 2 + 8 = 10,\ 10\ m^2$

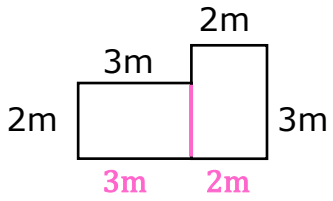
[1B] Find the perimeter in [1A].

a) $4 + 3 + 4 + 3 = 14,\ 14m$

b) $7 + 7 + 7 + 7 = 28,\ 28cm$

c) $1 + 2 + 3 + 2 + 4 + 2 + 2 = 16,\ 16m$

[2A] Find the area and perimeter.



Area: $3 \times 2 + 3 \times 2 = 6 + 6 = 12,\ 12\ m^2$

Perimeter: $3 + 2 + 3 + 2 + 3 + 2 = 15,\ 15m$

[2B] Draw two rectangles with an area of 18cm². Their widths are 3cm and 2cm, respectively.

[R] Solve:

a) 711 ÷ 3

$$\begin{array}{r} 237 \\ 3\overline{)711} \\ 6 \\ \hline 11 \\ 9 \\ \hline 21 \\ 21 \\ \hline 0 \end{array}$$

b) 536 ÷ 8

$$\begin{array}{r} 67 \\ 8\overline{)536} \\ 48 \\ \hline 56 \\ 56 \\ \hline 0 \end{array}$$