MATHEMATICS

Grade 4

English Learner Activity Book

2020 TERM 3

Introduction

This Learner Activity Book has numbered daily activities for classwork and homework for all the lessons in Term 3. The activities correspond to the activities in the Lesson Plans.

Answers to the activities can be written in this book.

If learners work systematically through these mathematics activities, they will cover the whole curriculum. These activities are planned as a fun way to help learners to acquire the prescribed mathematics knowledge and skills.

Contents

Lesson 1: Multiplication properties (1)

Mental maths

		Answer			Answer
1	$2 \times 7 =$		**6**	$3 \times 7 =$	
2	$5 \times 7 =$		**7**	$9 \times 7 =$	
3	$8 \times 7 =$		**8**	$1 \times 7 =$	
4	$6 \times 7 =$		**9**	$7 \times 7 =$	
5	$10 \times 7 =$		**10**	$4 \times 7 =$	

Array Diagram

	1	2	3	4	5	6	7	8	9	10
1	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	●	●	●	●	●	●
3	●	●	●	●	●	●	●	●	●	●
4	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	●	●	●	●	●
6	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	●
8	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●
10	●	●	●	●	●	●	●	●	●	●

Activity 1

Work with your partner

1   Set 5 × 7 on the array diagram.

    a   How many counters in this array?

    _____

    b   Write the number sentence and answer for this array.

    _____

2   Set 7 × 5 on the array diagram.

    a   How many counters in this array?

    _____

    b   Write the number sentence and answer for this array.

    _____

3   Compare the two answers: What do you notice?

_____

4 Use your array diagram to show your partner that the answer to 3 × 7 is the same as the answer to 7 × 3.

5 Write a conclusion by crossing out the part that is not true:
When we multiply two numbers, the order does / does not matter.

_____

6 Prudence and Joe are planting tomatoes.
Prudence planted her tomatoes in six rows of four tomatoes.
Joe planted his tomatoes in four rows of six tomatoes.

	Prudence's vegetable garden	Joe's vegetable garden
a Draw an array to show each person's vegetable garden		
b Write a number sentence to show how to work out how many tomatoes they each have planted.		
c How many tomatoes did each person plant?		

d Explain why the answers in **c**. are the same.

_____

_____

Activity 2

1. Complete the 10 × 10 multiplication table.

✖	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

2 On the multiplication table, shade the block showing the answer to 6 × 9 = ☐
On the multiplication table, shade the block showing the answer to 9 × 6 = ☐
What do you notice? Why

_____

3 On the multiplication table, draw a dark line around the block showing the
answer to 8 × 5 = ☐
On the multiplication table, draw a dark line around the block showing the
answer to 5 × 8 = ☐
What do you notice? Why

_____

Activity 3

Use brackets to show how you will group the numbers to make the calculation easier.

Then calculate each answer.

1 $8 \times 5 \times 2 = \square$

_____

_____

_____

2 $9 \times 50 \times 2 = \square$

_____

_____

_____

3 $6 \times 4 \times 25 = \square$

_____

_____

_____

4 $13 \times 5 \times 2 = \square$

_____

_____

_____

5 $25 \times 19 \times 4 = \square$

_____

_____

_____

HOMEWORK

1. Fill in the missing numbers to make each number sentence true.

   a. $3 \times 6 = $ _____ $\times 3$

   b. _____ $\times 7 = 7 \times 8$

   c. _____ $\times 100 = 100 \times 9$

2. Use brackets to show how you will group the numbers to make the calculation easier.
   Calculate each answer.

   a. $17 \times 2 \times 5 = \square$

   _____

   _____

   _____

   b. $23 \times 4 \times 25 = \square$

   _____

   _____

   _____

Lesson 2: Multiplication properties (2)

Mental maths

Complete this flow diagram.

Input		Output
1		_____
10		_____
0		_____
3		_____
8	**× 7**	_____
2		_____
6		_____
4		_____
5		_____
9		_____
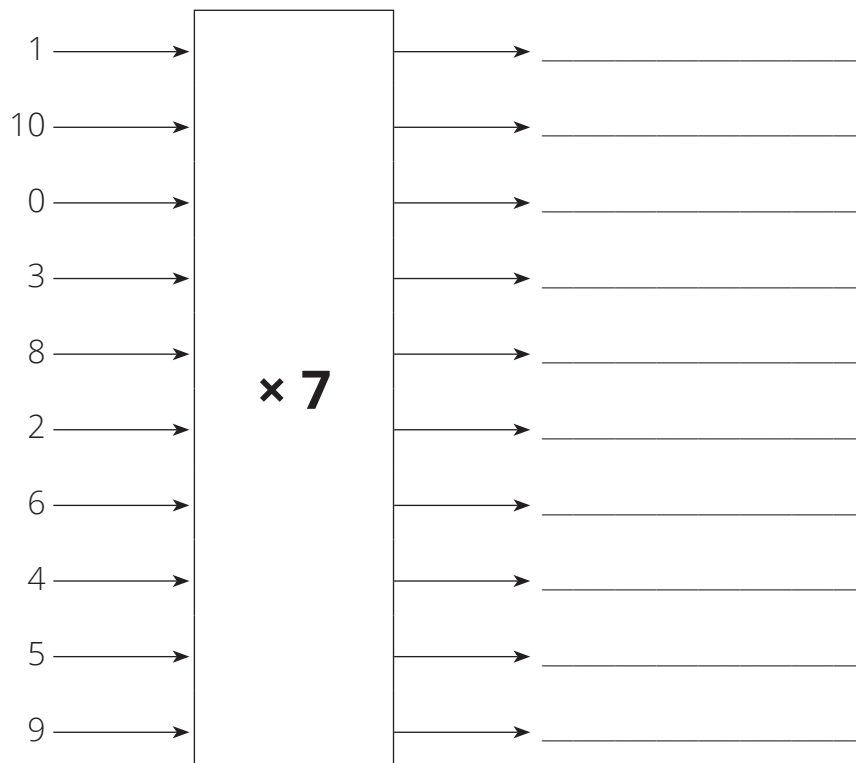
Activity 1

Work with your group to draw arrays to find the answer. Then do the working out.

	Array diagram	Working out
1 FIRST WAY **a** Find the number of pieces of chalk in each box.		Number of pieces of chalk in each box _____ _____
b Then find the total number of pieces of chalk.		Total number of pieces of chalk _____ _____
2 SECOND WAY **a** Find the total number of pieces of each colour chalk.		Number of pieces of white chalk in the 5 boxes _____ _____ Number of pieces of yellow chalk in the 5 boxes _____ _____
b Find the total number of pieces of chalk		Total number of pieces of chalk _____ _____

Activity 2

1 What do the brackets in a number sentence tell us?

_____

2 Find the answers to the first number sentence and the second number sentence.
Then compare the answers.

	1st number sentence	Answer to 1st number sentence	2nd number sentence	Answer to 2nd number sentence	Two answers the same or different?
a	$4 \times (3 + 5) = \square$		$(4 \times 3) + (4 \times 5) = \square$		
b	$6 \times (4 + 1) = \square$		$(6 \times 4) + (6 \times 1) = \square$		
c	$(8 \times 3) + (8 \times 4) = \square$		$8 \times (3 + 4) = \square$		
d	$(7 \times 4) + (7 \times 5) = \square$		$7 \times (4 + 5) = \square$		

Activity 3

What do the brackets in a number sentence tell us?

1. $3 \times (2 + 4) = (____ \times 2) + (____ \times 4) = $ _____

2. $7 \times (3 + 5) = (7 \times ____) + (7 \times ____) = $ _____

3. $(9 \times 4) + (9 \times 5) = ____ \times (4 + 5) = ____ \times 9 = $ _____

4. $(8 \times 2) + (8 \times 6) = ____ \times (2 + 6) = ____ \times 10 = $ _____

HOMEWORK

Match the calculation in the first column with the calculation that would give the same answer in the second column.

Column A

Column B

$(9 + 5) \times (9 + 2)$

$9 \times (5 + 2)$

$4 + (3 \times 6)$

$(9 \times 5) + (9 \times 2)$

$(4 \times 3) + (4 \times 6)$

$4 \times (3 + 6)$

Lesson 3: Multiplication using the column method

Mental maths

		Answer			Answer
1	3 × 7 =		**6**	1 × 7 =	
2	6 × 7 =		**7**	5 × 7 =	
3	7 × 7 =		**8**	9 × 7 =	
4	4 × 7 =		**9**	2 × 7 =	
5	0 × 7 =		**10**	10 × 7 =	

Link to previous lesson

There are 6 families.

Each family has 4 cows and 3 goats.

How many animals are there altogether?

Draw a diagram to show how you find the answers.

Activity 2

Use the column method to find the answer.

1 12 × 2 = ☐

	H	T	O

2 32 × 3 = ☐

	H	T	O

3 63 × 3 = ☐

	T	O

4 20 × 4 = ☐

	T	O

5 32 × 4 = ☐

	T	O

6 21 × 5 = ☐

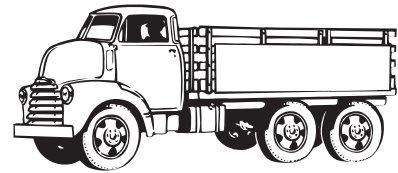|	T	O

Activity 3

Use the column method to find the answer.

1. There are <u>11</u> trucks.

Each truck has <u>6</u> wheels.

How many wheels are there altogether?

a. Write the number sentence.

_____

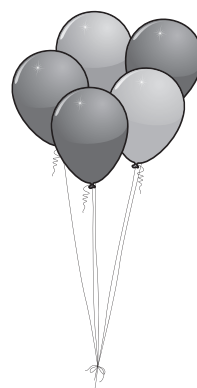**b.** Do the calculation. Use the column method.

H	T	O

c. Write the answer:

There are _____ wheels altogether.

2. Zami bought <u>31</u> packets of balloons for a party.

There were <u>5</u> balloons in each packet.

<u>How many balloons did Zami buy</u>?

a. Write the number sentence.

_____

b. Do the calculation.

	H	T	O

c. Write the answer:

Zami bought _____ balloons.

HOMEWORK

Use the column method to calculate the answers:

1 22 × 3 = □

		T	O

2 42 × 3 = □

		T	O

3 30 × 3 = □

		T	O

4 43 × 2 = □

		T	O

Lesson 4: Multiplying a 2-digit number by a 1-digit number

Mental maths

		Answer			Answer
1	3 × 8 =		**6**	1 × 8 =	
2	6 × 8 =		**7**	8 × 8 =	
3	9 × 8 =		**8**	2 × 8 =	
4	4 × 8 =		**9**	10 × 8 =	
5	7 × 8 =		**10**	5 × 8 =	

Link to previous lesson

Do this calculation:

1

	H	T	O
		3	1
×			4

Activity 1

Work with your partner. Do the calculation.

1 $45 \times 3 = \square$

	H	T	O
		4	5
$\times$			3

Activity 2

Use the column method and find the answer.

1 $13 \times 5 = \square$

	H	T	O

2 $70 \times 6 = \square$

	H	T	O

3 $32 \times 8 = \square$

	H	T	O

4 $52 \times 9 = \square$

	H	T	O

5 $56 \times 8 = \square$

	H	T	O

6 $16 \times 7 = \square$

	H	T	O

7 $46 \times 9 = \square$

	T	O

8 $67 \times 8 = \square$

	T	O

Activity 3

1. There are <u>7</u> players in a netball team.

    How many players are there in 23 netball teams?

    Number sentence: _____

	H	T	O

    Answer: There are _____ players in 23 teams.

2. Thapelo sells potatoes for R<u>26</u> per bag.

    How much money will he have if he sells 9 bags of potatoes?

    Number sentence: _____

	H	T	O

    Answer: Thapelo will have R _____.

HOMEWORK

Use the column method and find the answers.

1 23 × 4 = ☐

	H	T	O

2 34 × 6 = ☐

	H	T	O

3 71 × 8 = ☐

	H	T	O

4 45 × 7 = ☐

	H	T	O

Lesson 5: Multiplying by a 2-digit number (1)

Mental maths

Complete this flow diagram.

Input		Output
3		_____
1		_____
6		_____
0	× 8	_____
5		_____
2		_____
9		_____
7		_____
4		_____
8		_____
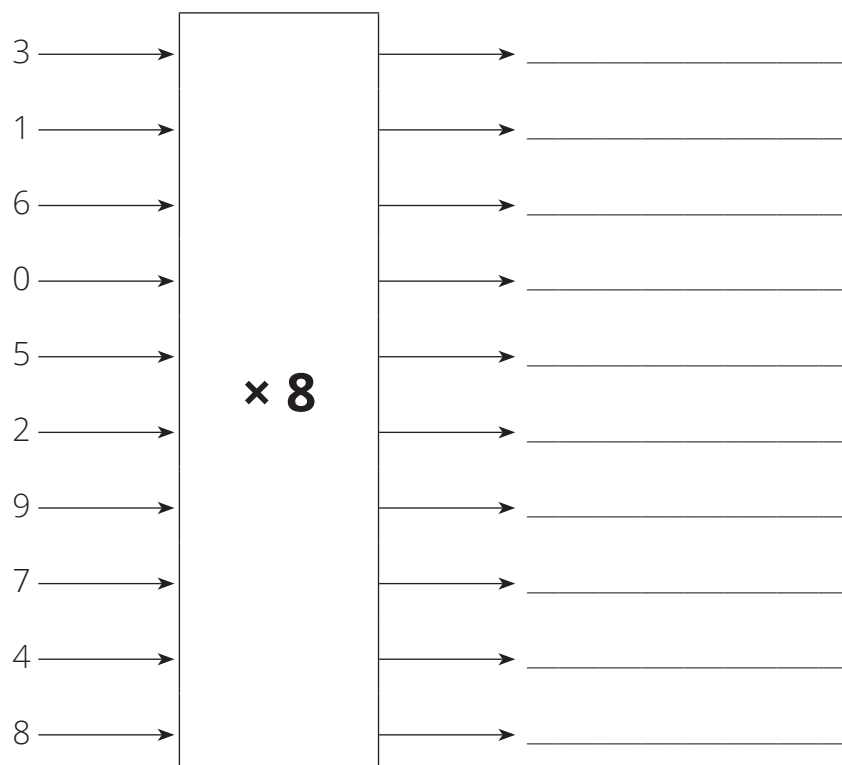
Link to previous lesson

Do this calculation:

1

	H	T	O
		7	9
×			8

Activity 1

Work with your partner to find the answers.

You buy bananas at 15 cents each.

1. If you buy 4 bananas, how much will it cost?

   Write a number sentence to show how you work this out:

   _____

   Do the calculation:

	H	T	O

   Write down the answer: 4 bananas will cost _____ cents)

2. If you buy 40 bananas, how much will it cost?

   Write a number sentence to show how you work this out: _____

   Do the calculation:

   40 × 15 can be solved by like this: (4 × 15) × 10, because 40 = 4 × 10

   So, 40 × 15 = (4 × 15) × 10

   $$= \text{_____} \times 10$$

   $$= \text{_____}$$

   Write down the answer: 40 bananas will cost _____ cents.

Activity 2

1. Calculate: 41 × 20 = ☐

41 × 20 = (41 × _____) × 10
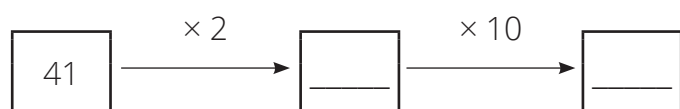
So, 41 × 20 = _____

2. Calculate: 23 × 30 = ☐

23 × 30 = (23 × _____) × 10

	H	T	O
		2	3
×			3

So, 23 × 69 = _____
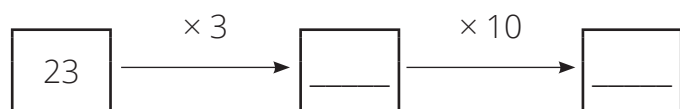
3. Calculate: 35 × 20 = ☐

35 × 20 can be solved like this: (35 × _____) × 10

	H	T	O
		3	5
×			2

So, 35 × 20 = _____

4. Calculate: 76 × 40 = ☐

76 × 40 can be solved like this: (76 × _____) × 10

	H	T	O
		7	6
×			4

76 →(× 4)→ _____ →(× 10)→ _____
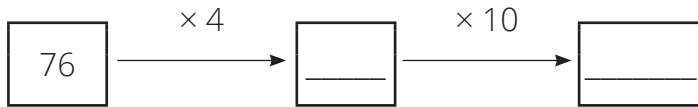
So, 76 × 40 = _____

HOMEWORK

1. Calculate: 15 × 30 = ☐

15 × 30 can be solved like this: (15 × _____) × 10

	H	T	O
		1	5
×			3

15 →(× 3)→ _____ →(× 10)→ _____
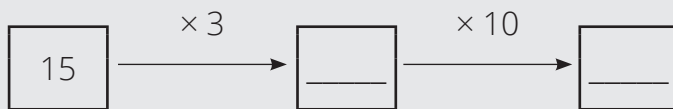
So, 15 × 30 = _____

2. Calculate: 46 × 20 = ☐

46 × 20 can be solved like this: (46 × _____) × 10

	H	T	O
		4	6
×			2

46 →(× 2)→ _____ →(× 10)→ _____
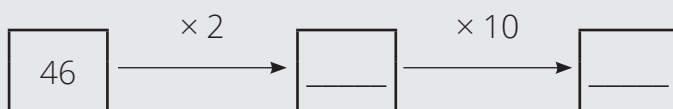
So, 46 × 20 = _____

Lesson 6: Multiplying by a 2-digit number (2)

Mental maths

		Answer			Answer
1	$0 \times 8 =$		**6**	$10 \times 8 =$	
2	$2 \times 8 =$		**7**	$9 \times 8 =$	
3	$4 \times 8 =$		**8**	$3 \times 8 =$	
4	$6 \times 8 =$		**9**	$5 \times 8 =$	
5	$8 \times 8 =$		**10**	$7 \times 8 =$	

Link to previous lesson

Calculate $28 \times 30 = \square$.
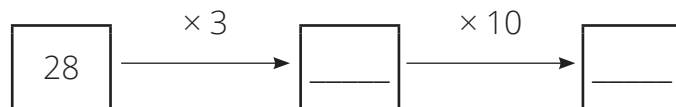
Activity 2

Use the column method and find the answer.

1 21 × 13 = ☐

	H	T	O

2 12 × 17 = ☐

	H	T	O

3 42 × 15 = ☐

	H	T	O

4 28 × 21 = ☐

	H	T	O

5 69 × 11 = ☐

	H	T	O

6 32 × 23 = ☐

	H	T	O

Activity 3

1. There are <u>12</u> cows.

   Each cow produces <u>15</u> litres of milk per day.

   <u>How many litres are produced altogether?</u>

   a. Write the number sentence.

   _____

   b. Do the calculation. Use the column method.

	H	T	O

   c. Write the answer:

   _____ litres of milk are produced altogether.

2. Mrs Ndlovu sells cupcakes for R12 each.

How much money will she get if she sells 25 cupcakes?

a. Write the number sentence.

_____

b. Do the calculation.

	H	T	O

c. Write the answer:

Mrs Ndlovu will get _____

HOMEWORK

Use the column method. Calculate the answers.

1   35 × 21 = ☐

	H	**T**	**O**

2   22 × 13 = ☐

	H	**T**	**O**

Lesson 7: Multiplying by a 2-digit number (3)

Mental maths

		Answer			Answer
1	10 × 9 =		6	1 × 9 =	
2	6 × 9 =		7	9 × 9 =	
3	4 × 9 =		8	5 × 9 =	
4	0 × 9 =		9	8 × 9 =	
5	7 × 9 =		10	3 × 9 =	

Link to previous lesson

Calculate 28 × 31 = □.

H	T	O

Activity 1

Work with your partner to find the answer.

Maria buys 18 airtime bundles to sell in her shop.

Each bundle costs R48.

How much must Maria pay?

For calculating:

H	T	O

Let's find a way of calculating this:

- Divide the airtime bundles into 10 bundles and 8 bundles.

- 10 airtime bundles will cost: 10×48 = _____

- 8 airtime bundles will cost: 8×48 = _____

Total   _____

Maria must pay R _____

Let's see how we can do this in one calculation:

Th	H	T	O

Activity 2

Use the column method to do each calculation.

1. $20 \times 78 = \square$

Th	H	T	O

2. $83 \times 50 = \square$

Th	H	T	O

3. $31 \times 49 = \square$

Th	H	T	O

4. $64 \times 57 = \square$

Th	H	T	O

5. $35 \times 29 = \square$

Th	H	T	O

6. $47 \times 48 = \square$

Th	H	T	O

7. $26 \times 98 = \square$

	Th	H	T	O

8. $94 \times 75 = \square$

	Th	H	T	O

HOMEWORK

Use the column method to do each calculation.

1

		Th	H	T	O
				4	1
$\times$				4	9

2

		Th	H	T	O
				3	7
$\times$				5	2

Lesson 8: Multiplying by a 2-digit number (4)

Mental maths

		Answer			Answer
1	5 × 9 =		**6**	4 × 9 =	
2	10 × 9 =		**7**	1 × 9 =	
3	2 × 9 =		**8**	6 × 9 =	
4	9 × 9 =		**9**	7 × 9 =	
5	3 × 9 =		**10**	8 × 9 =	

Link to previous lesson

Calculate 49 × 23 = □

Th	H	T	O

Activity 1

1 Use any method.

One desk measures <u>68</u> cm across.
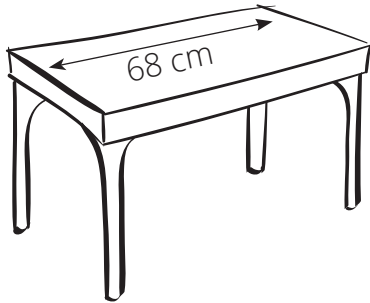
How much will it measure if 12 desks are placed together like this:

a. Write the number sentence: _____

b. Do the calculation

2   Use any method to calculate the following.

a   38 × 20 = □   **b**   46 × 18 = □

c   28 × 32 = □   **d**   99 × 60 = □

Activity 2

Use any method to find the answers.

1. There are <u>18</u> books in a box.

   One book costs R<u>25</u> litres of milk per day.

   a. How much will one box of books cost?

18 books in a box

   b. What will four boxes of books cost?

2. A farmer packed seeds in packets.

   Each packet contains <u>18</u> seeds.

   a. How many seeds are there in 32 packets?

18 seeds in each packet

   b. Each packet of seeds is R<u>25</u>.

   How much money will she have if she sells all the packets of seeds?

3. There are <u>96</u> pages in one book.

    a. How many pages will there be in 12 books?

96 pages in each book

    b. How many pages will there be in 120 books?

HOMEWORK

Use any method to calculate.

1. $42 \times 23 = \square$

2. $56 \times 34 = \square$

Lesson 9: Consolidation

1 Fill in the multiplication facts:

×	2	5	4	8	3	1	6	10	9	7
7										
9										
8										

2 There are 7 rows with 10 dots in this array diagram.

Draw a circle around the number sentence
you would use to find how many dots there
are altogether.

a $10 + 7 = \square$

b $7 \times 8 = \square$

c $7 \times 10 = \square$

d $7 \times 9 = \square$
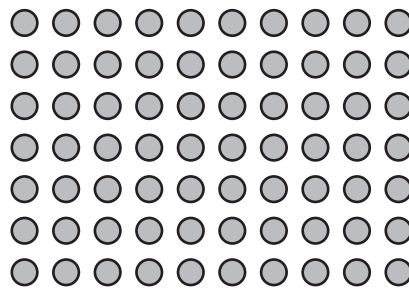
3 I have 3 bunches of flowers.

In each bundle there are 4 white flowers and 5 yellow flowers.
How many flowers do I have altogether?

a. Draw a diagram to show the multiplication.

b. Write down a number sentence and use it to calculate the total number
of flowers.

4 Calculate:

a

	Th	H	T	O
			2	9
×			3	7

b

	Th	H	T	O
			4	7
×			2	2

c

	Th	H	T	O
			1	8
×			5	0

d

	Th	H	T	O
			6	3
×			4	5

e

	Th	H	T	O
			7	2
×			5	7

f

	Th	H	T	O
			8	8
×			3	2

5 Use any method to calculate the following:

a $31 \times 23 = \square$ **b** $25 \times 47 = \square$

c $37 \times 20 = \square$ **d** $73 \times 50 = \square$

Lesson 10: Area

Mental maths

		Answer			Answer
1	7 × 2 =		**6**	9 × 7 =	
2	2 × 3 =		**7**	7 × 8 =	
3	9 × 4 =		**8**	4 × 10 =	
4	6 × 5 =		**9**	9 × 0 =	
5	8 × 6 =		**10**	8 × 1 =	

Link to Grade 3 work on area
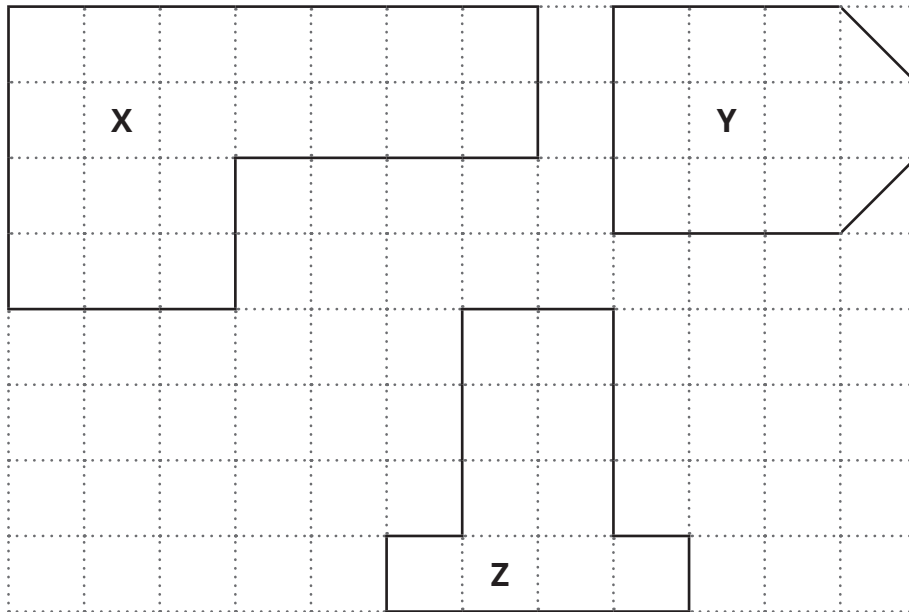
Activity 1

Nomsa's vegetable garden

Nomsa has planted a bed of spinach, a bed of beans and a bed of carrots.
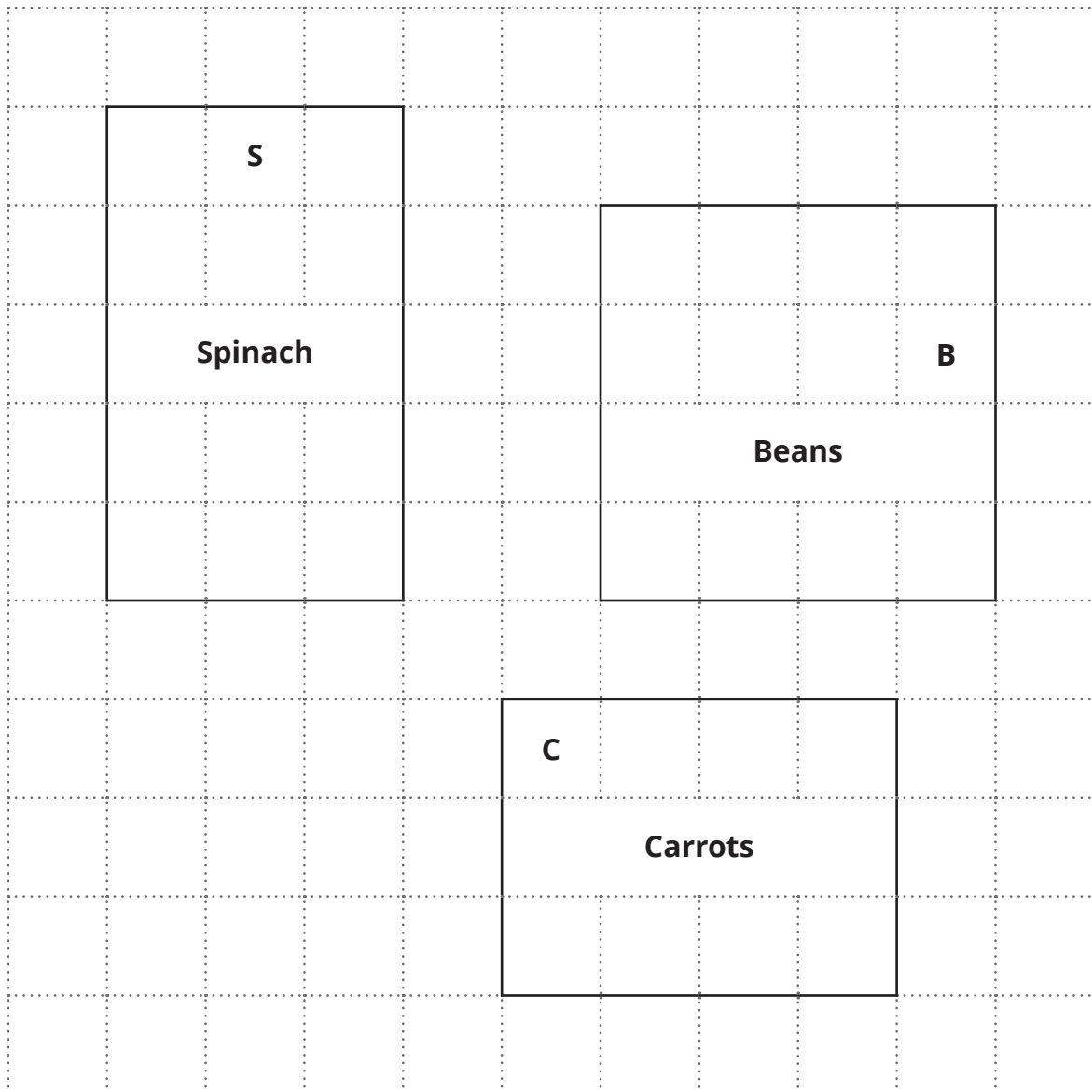
1. Count the number of squares in each vegetable bed:

How many squares are there in the bed of spinach?

_____

How many squares are there in the bed of beans?

_____

How many squares are there in the bed of carrots?

_____

2. Write the vegetables in order from biggest area (space) to smallest area.

_____

3. Which method do you think is the most accurate: guessing, overlapping or finding the number of squares? Explain your answer.

_____

_____

_____

Activity 2

Find the area of each polygon by counting the squares.
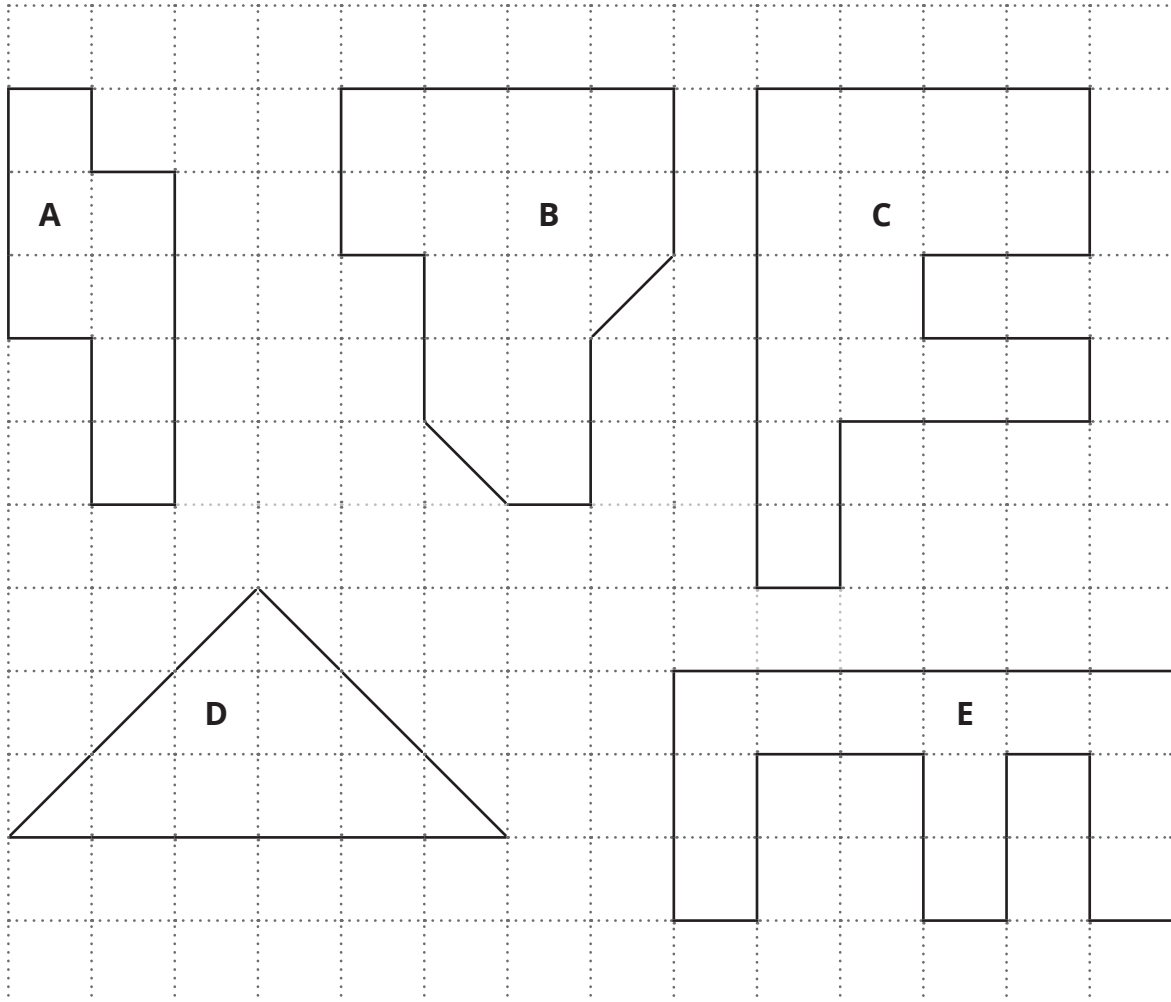
Area of A = _____ squares

Area of B = _____ squares

Area of C = _____ squares

Area of D = _____ squares

Area of E = _____ squares
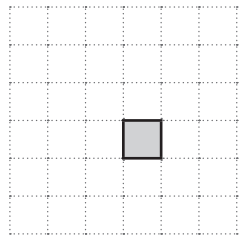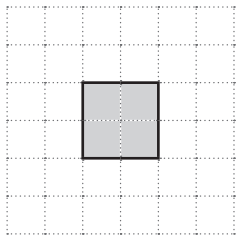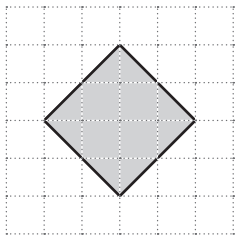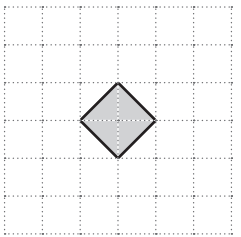
Activity 3

On the grid below, draw three different shapes that have an area of 16 squares.

You may use whole squares and half squares.
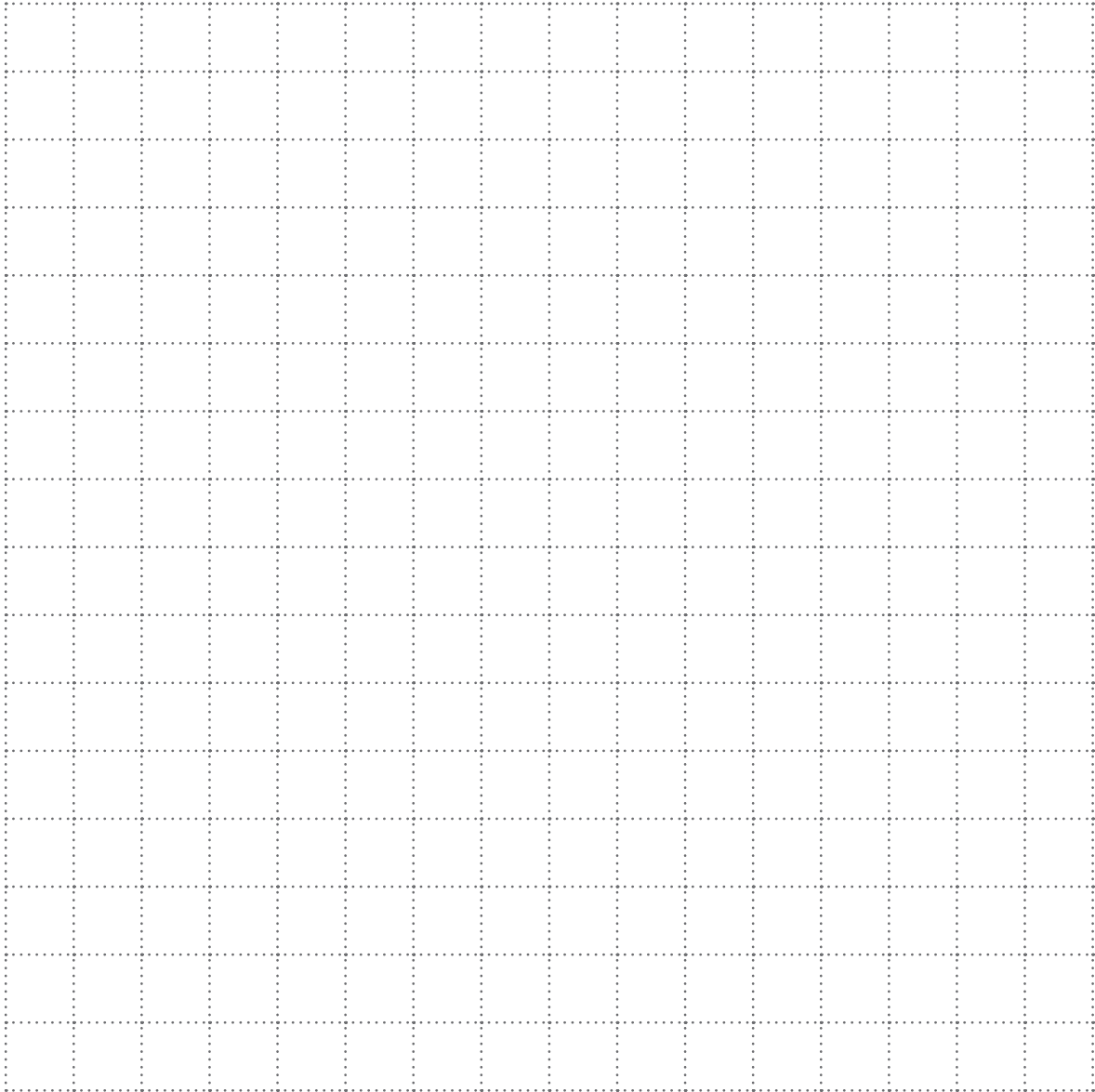
HOMEWORK

1   Find the area of shapes A, B, C and D.

A	B	C	D

Area of A = _____ square

Area of B = _____ squares

Area of C = _____ squares

Area of D = _____ squares

2   Draw a circle around the shape with the smallest area.

3   Draw a square around shape with the biggest area.

Lesson 11: Using square units to measure area

Mental maths

		Answer			Answer
1	8 × 5 =		**6**	6 × 4 =	
2	7 × 9 =		**7**	4 × 7 =	
3	8 × 8 =		**8**	9 × 2 =	
4	2 × 10 =		**9**	8 × 6 =	
5	8 × 3 =		**10**	10 × 1 =	

Link to previous lesson

The square has been divided into two parts. Do the two parts have the same area?

Give a reason for your answer.
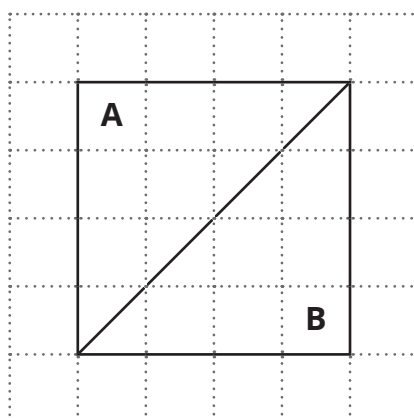
Activity 1

Use your ruler. Measure the sides of the shaded square.

Write the measurement (in cm) on sides **a** and **b**.
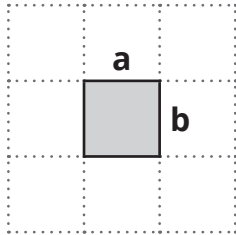
a = _____ cm and **b** = _____ cm

What is the area of rectangle B and what is the area of rectangle B in square centimetres (cm^2)?

1 cm

1 cm

A

B

_____

_____
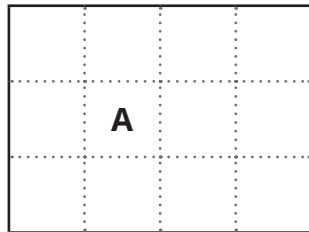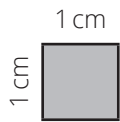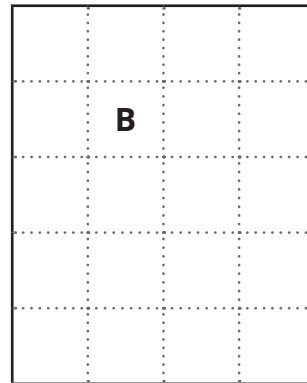
Activity 2

1. What is the area of each shape in cm²?

The area of:

Shape A = _____ cm²

Shape B = _____ cm²

Shape C = _____ cm²

Shape D = _____ cm²

2 Draw four different polygons. Each polygon should have an area of 6 cm².

1 cm

1 cm
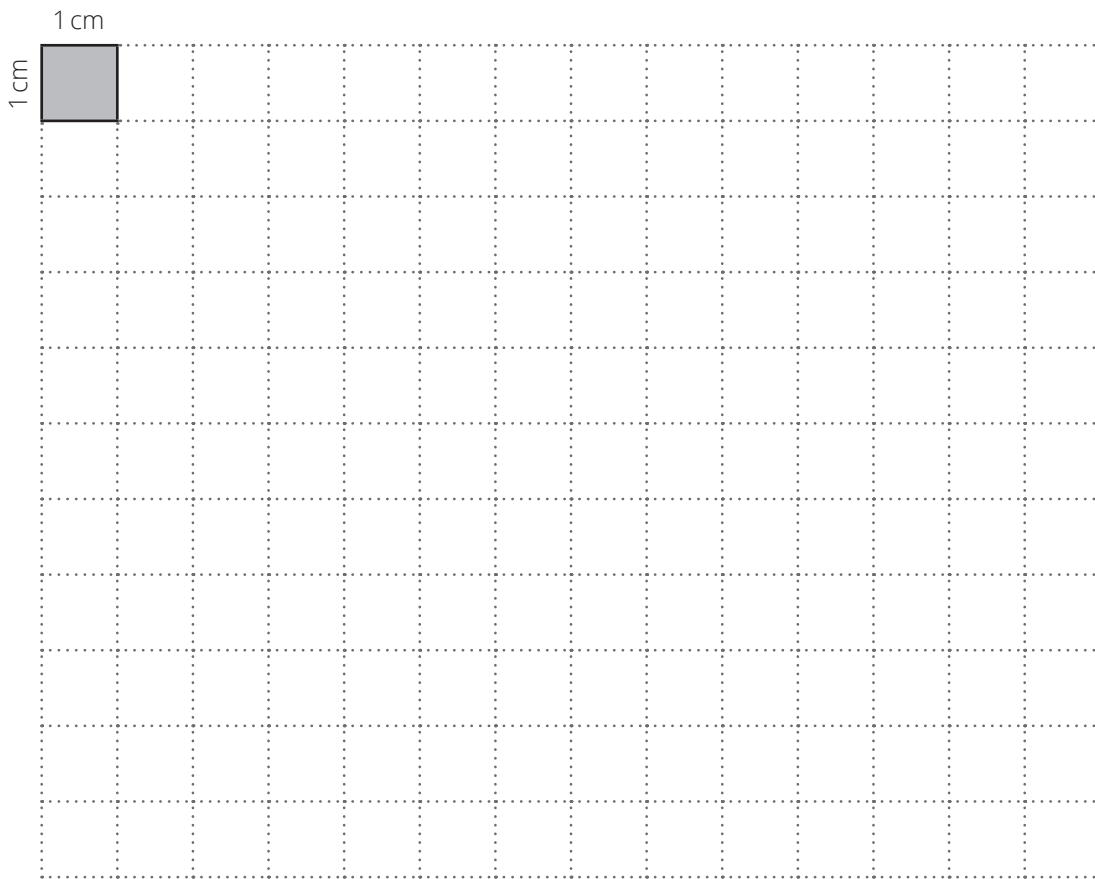
HOMEWORK

Find the area of each polygon. Give the answer in cm^2.

1 cm

1 cm

A

B

C

D

E
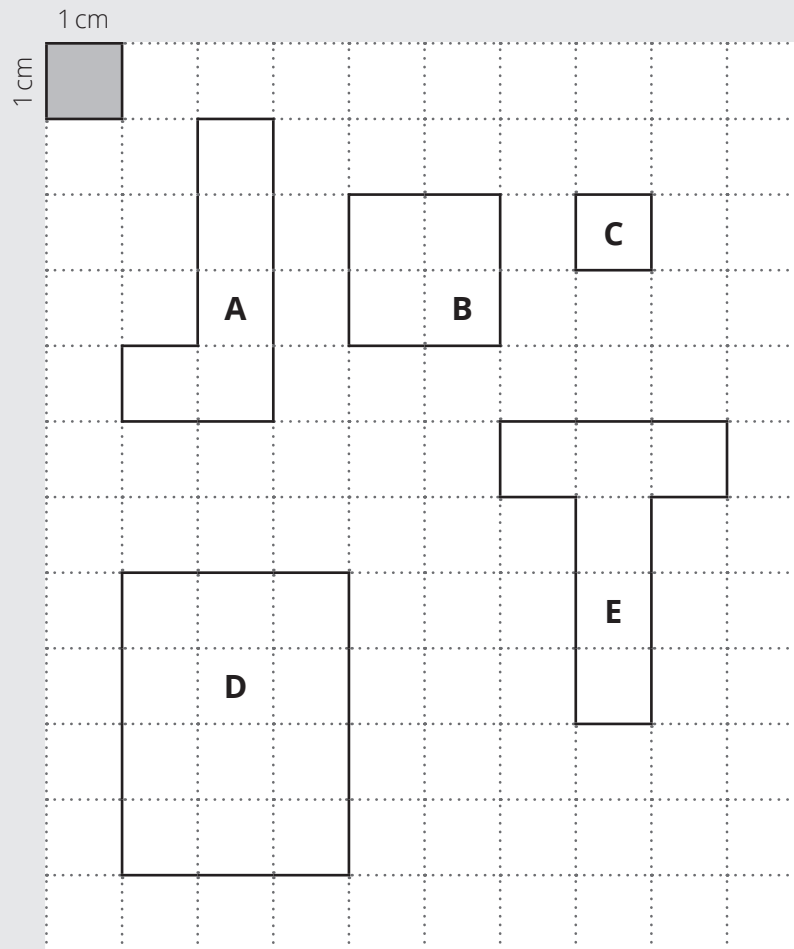
The area of:

Shape A = _____ cm^2 Shape B = _____ cm^2

Shape C = _____ cm^2 Shape D = _____ cm^2

Shape E = _____ cm^2

Lesson 12: Calculating area (1)

Mental maths

		Answer			Answer
1	5 × 4 =		**6**	9 × 5 =	
2	5 × 9 =		**7**	10 × 10 =	
3	6 × 6 =		**8**	8 × 9 =	
4	8 × 0 =		**9**	6 × 8 =	
5	7 × 1 =		**10**	3 × 9 =	

Link to previous lesson

What is the area of each of the rectangles on the grid?
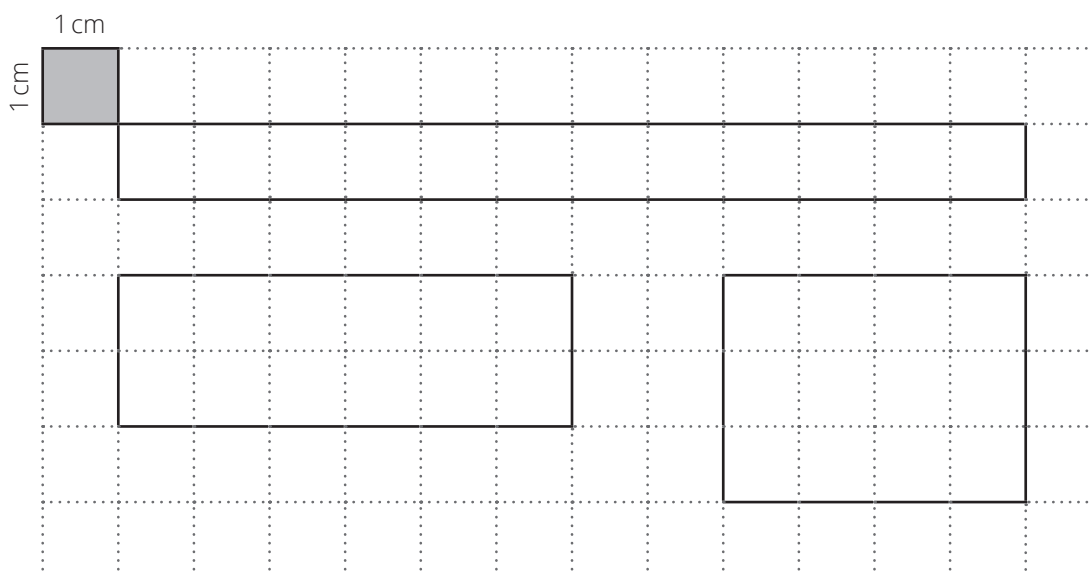
Activity 1

Write the area of A, B and C. Give your answers in square centimetres.

Hint: Count the number of 1 cm^2 squares in each quadrilateral.

A

B

C
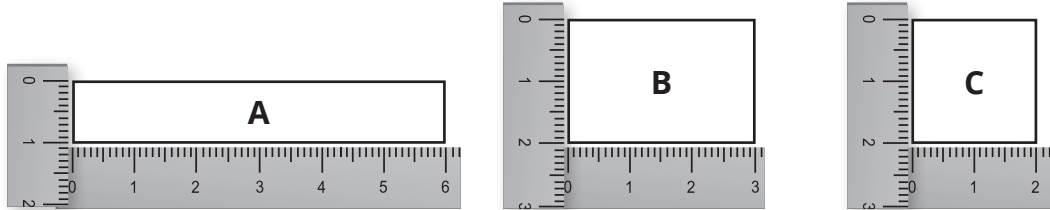
Area A = _____ cm^2 Area B = _____ cm^2 Area C = _____ cm^2

Activity 2

4 cm

5 cm

1 cm

1 cm
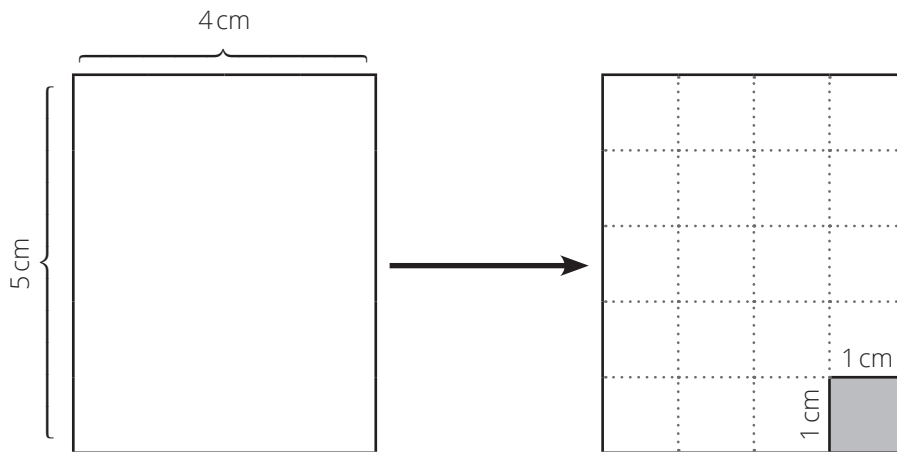
Count the number of 1 cm^2 squares in the rectangle _____

Fill in the missing numbers:

Length of the longer side × length of the shorter side

= _____ cm × _____ cm

= _____ squares

= _____ cm^2

What do you notice about your two answers? _____

_____

Activity 3

1 Calculate the area of a place mat that is 15 cm long and 30 cm wide.

    a Draw a rectangle and write the measurements on the drawing.

    b Calculate the area of the place mat.

       Area of placemat

       = length × breadth

       = _____

       = _____ cm^2

2 Calculate the area of a square with sides that are 20 cm long.

    a Draw a square and write the measurements on the drawing.

    b Calculate the area of the square.

       Area of square

       = length × breadth

       = _____

       = _____ cm^2

3 The area of a rectangle is 80 cm^2.

The length of the rectangle is 10 cm.

What is the breadth of the rectangle?

a Draw a rectangle and write the given measurements on the drawing.

b Calculate the breadth of the rectangle.

Length × breadth = area of rectangle

_____

_____

_____

HOMEWORK

Draw three different rectangles each with an area of 20 cm^2.
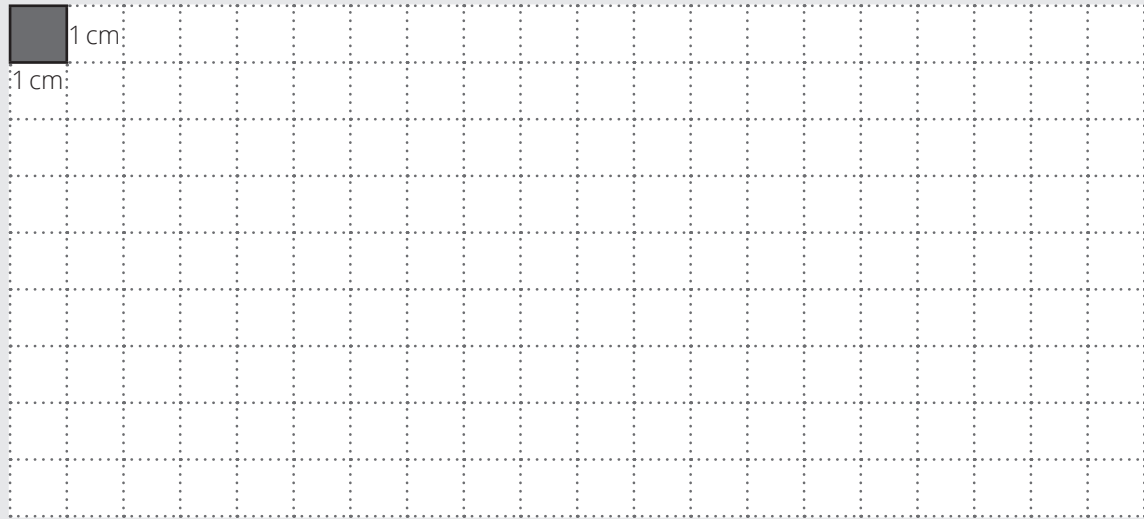
Lesson 13: Calculating area (2)

Mental maths

		Answer			Answer
1	1 × 8 =		**6**	7 × 7 =	
2	2 × 5 =		**7**	4 × 6 =	
3	9 × 10 =		**8**	7 × 0 =	
4	6 × 1 =		**9**	4 × 8 =	
5	9 × 8 =		**10**	7 × 9 =	

Link to previous lesson

Calculate the area of quadrilaterals A, B, C and D.
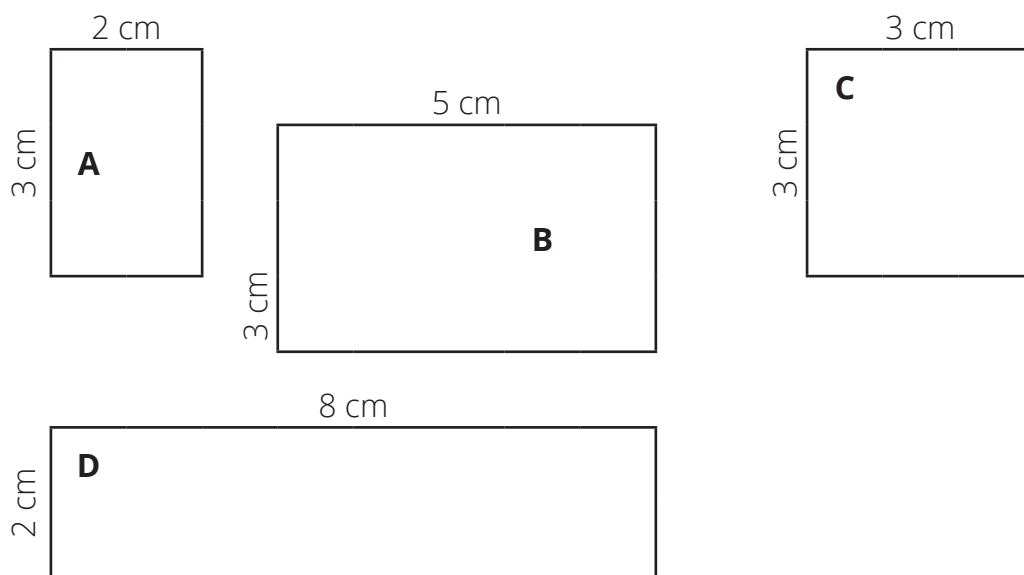
Area rectangle A = _____

Area rectangle B = _____

Area square C = _____

Area rectangle D = _____

Activity 2

1. Find the area of a school kitchen that is 6 m long and 5 m wide.

    a. Each square on this grid represents a square that is 1 m by 1 m.
        Draw a sketch of the kitchen on the grid.
        Fill in the measurements of the square on the grid.

    1 m
    1 m

    b. Find the area of the kitchen. Give your answer in square metres (m^2).

        Area of the kitchen = length × breadth

        = _____

        = _____

2. Which do you think is bigger, this kitchen or your classroom?

    _____

    _____

    _____

    _____

Activity 3

1. Use the formula to calculate the area of a wall.

    The length of the wall is 8 metres long. The breadth of the wall is 150 cm.

    a. Fill in the measurements on this drawing of the wall.
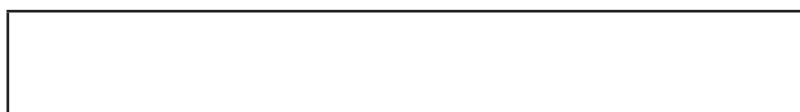
    b. Write down the formula for calculating the area of a rectangle:

        Area of a rectangle = _____

    c. When you calculate area, the measurements of both the length and the breadth must be in the same units.

        Write 8 m in cm.

        8 m = _____ cm

    d. Calculate the area of the wall. Make sure that both measurements are in the same unit.

        Area of classroom = length × _____

        = _____

        = _____

2. Use the formula to calculate the area of the floor of a square office.

Each of the walls in the office is 5 metres long.

   a. Fill in the measurements on this drawing of the floor.
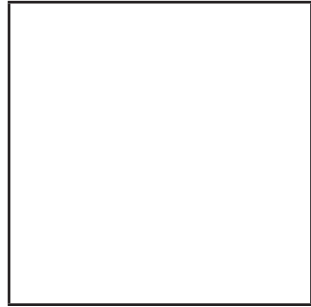
   b. Write down the formula for calculating the area of a square:

   Area of a square = _____

   c. Calculate the area of the floor in m^2.

   Area of floor = _____ × breadth

                  = _____

                  = _____

   d. Calculate the area of the floor in cm^2

   5 m = _____ cm

   Area of the floor = _____

                     = _____

HOMEWORK

1. Calculate the area of a rectangle with a length of 9 m and a breadth of 7 m.

    Area of a rectangle = length × _____

                             = _____

                             = _____

2. Calculate the area of a square with sides of 7 m.

    Area of a square = _____

                         = _____

                         = _____

Lesson 14: Calculating area (3)

Mental maths

		Answer			Answer
1	7 × 6 =		**6**	8 × 7 =	
2	8 × 10 =		**7**	4 × 8 =	
3	8 × 9 =		**8**	9 × 3 =	
4	9 × 9 =		**9**	4 × 0 =	
5	9 × 6 =		**10**	6 × 5 =	

Activity 1

Work with your partner to find the area of this shape.

Use the formula for calculating the area of a rectangle and a square.

Activity 2

Find the area of each shape

1

2

3

3 m

3 m

6 m

3 m

3 m

6 m

HOMEWORK

Find the area of each shape.

1

5 cm
1 cm
2 cm
A
2 cm
3 cm
3 cm

2

6 m
1 m
4 m
B
5 m
4 m
2 m
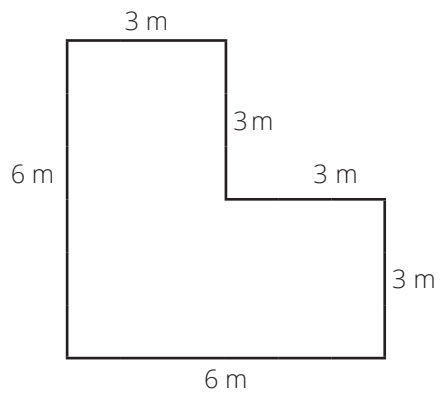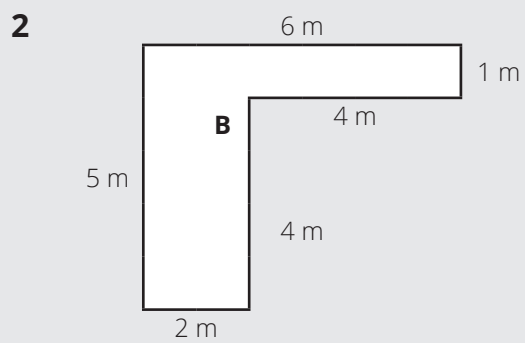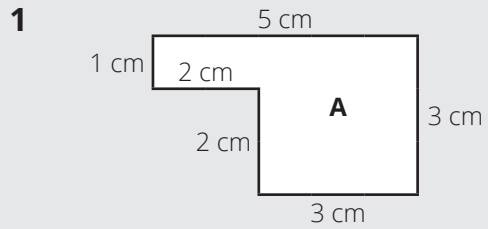
Lesson 15: Calculating area (4)

Mental maths

		Answer			Answer
1	2 × 7 =		**6**	4 × 3 =	
2	6 × 9 =		**7**	3 × 4 =	
3	7 × 10 =		**8**	5 × 2 =	
4	3 × 8 =		**9**	7 × 5 =	
5	3 × 2 =		**10**	0 × 6 =	

Link to previous lesson

Calculate the area of the shape. Do this by dividing the shape into rectangles.

_____

_____

_____

_____
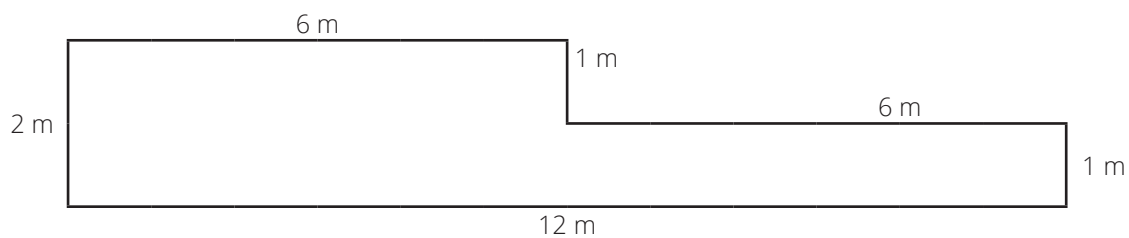
Activity 1

Find the area of this shape.

_____

_____

_____

_____
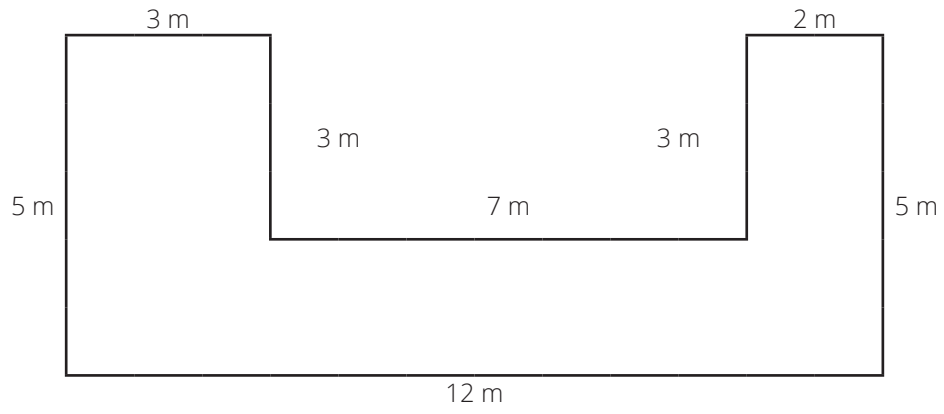
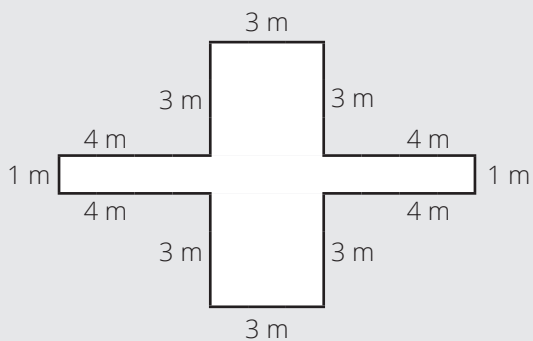## Activity 2

1 Find the area of this shape in two different ways
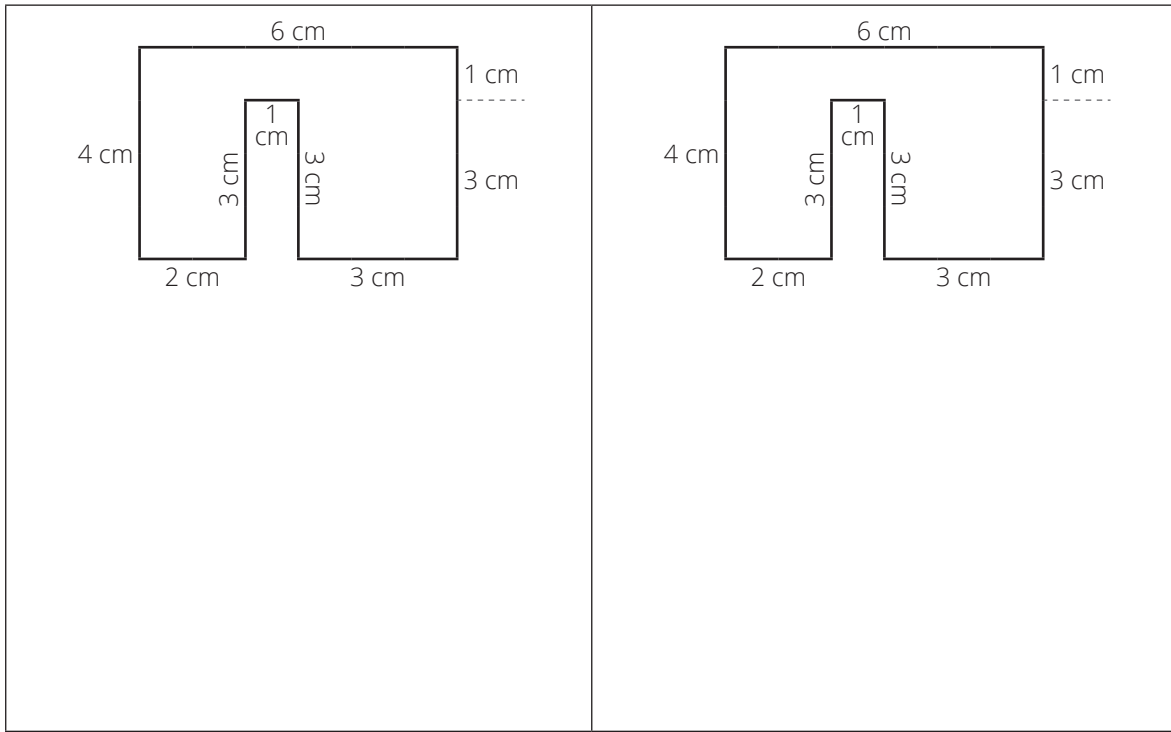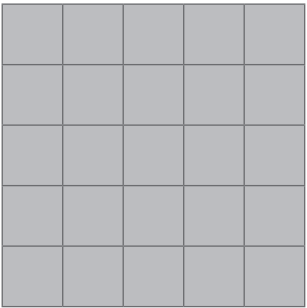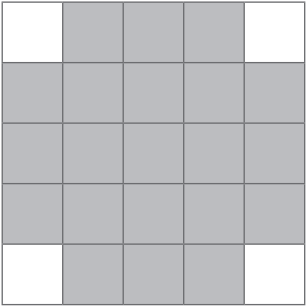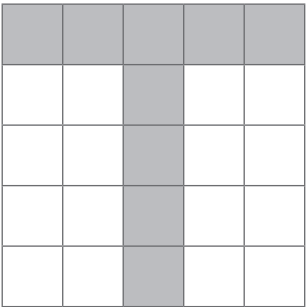

2 Find the area of this shape in two different ways
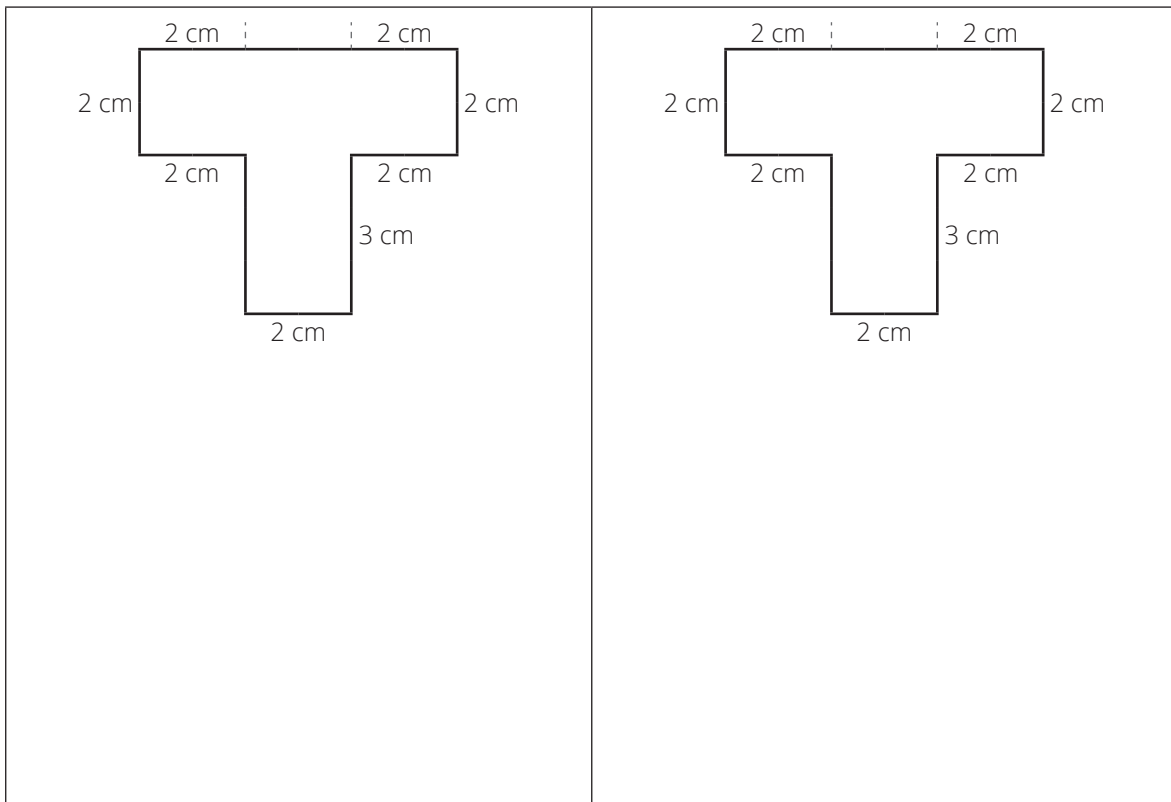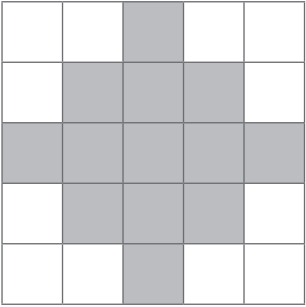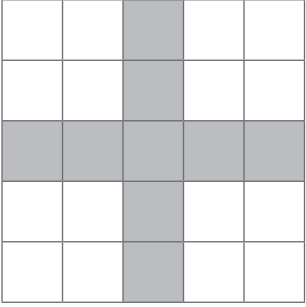
HOMEWORK

Show different ways of finding the area of this shape.
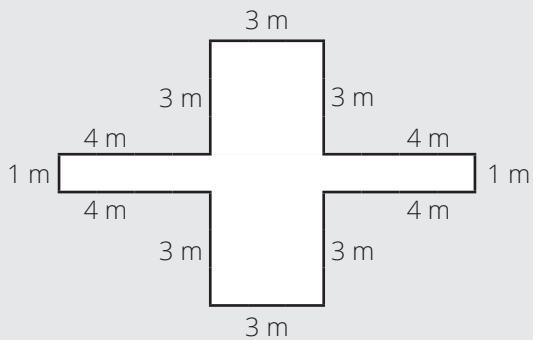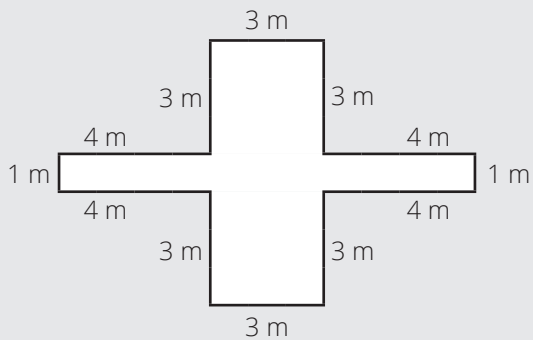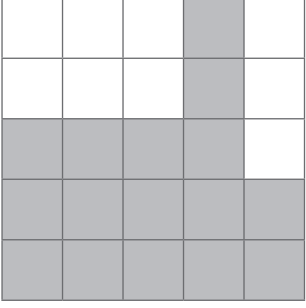
Lesson 16: Consolidation

1 Complete the table. The sides of each small square are 1 cm long.

Shape	Area of shaded area in squares	Area of shaded area in cm²
a		
b		
c		

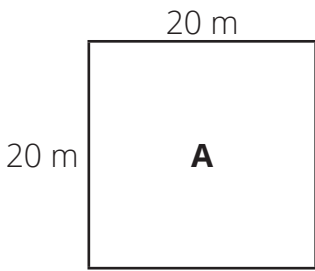|	Shape	Area of shaded area in squares	Area of shaded area in cm²
d			
e			
f			

2 Calculate the area of each shape.

Use the formula:
Area of rectangle = length × breadth
Area of square = length × breadth

a

20 m

20 m | **A**
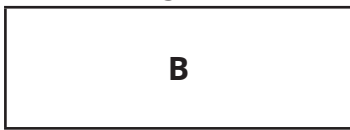
b
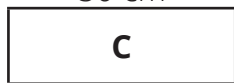
15 m

4 m | **B**

c
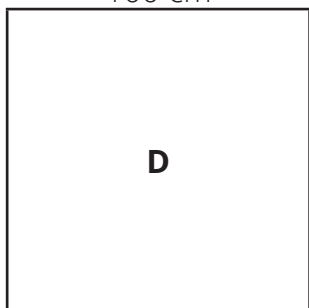
50 cm

25 cm | **C**

d

100 cm

100 cm | **D**

3 Show three different ways of finding the area of this shape.
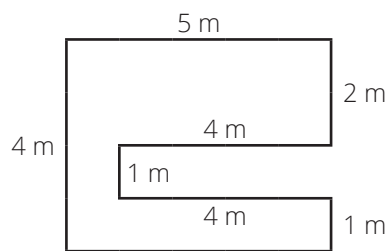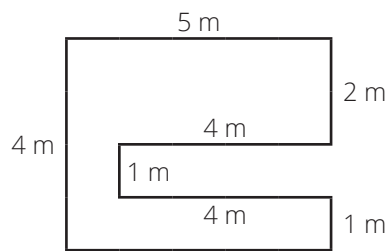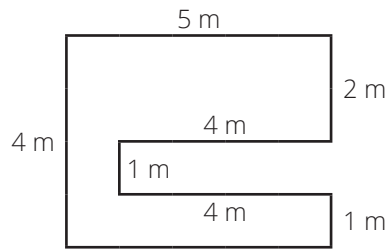
Lesson 17: Perimeter (1)

Mental maths

		Answer			Answer
1	3 + 8 =		**6**	9 + 8 =	
2	7 + 4 =		**7**	6 + 7 =	
3	9 + 7 =		**8**	18 + 0 =	
4	5 + 9 =		**9**	13 + 1 =	
5	8 + 8 =		**10**	4 + 8 =	

Link to previous lesson

Work with your partner to find the area of this shape.

1 cm

1 cm
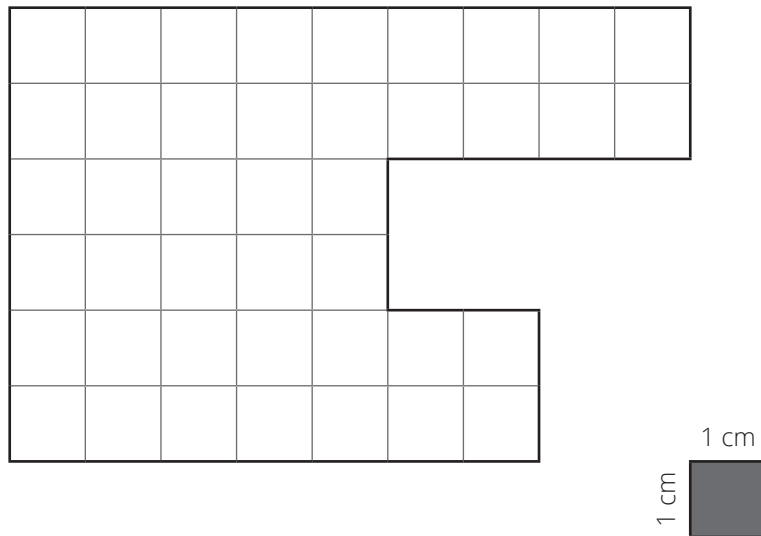
Activity 1

1 **a** If an ant walks all the way around a square with sides of 1 cm, how far will it walk?

_____
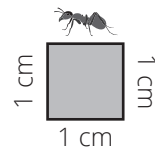
b Choose the correct word.
We call this measurement the perimeter / area of the square.

c. What is the area of this square? _____

d. What is the difference between perimeter and area?

_____

_____

_____

2 Find the perimeter by counting.
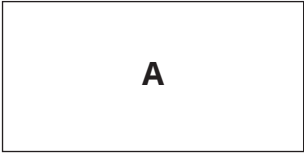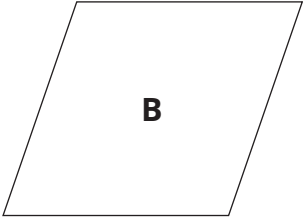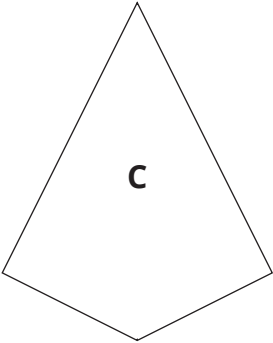
Find the perimeter of each shape. The dots are 1 cm apart. Give the answers in centimetres.

A	B	C	D
Perimeter	Perimeter	Perimeter	Perimeter
= _____ cm	= _____ cm	= _____ cm	= _____ cm

3 For each of these shapes:

    a Use a ruler. Measure the length of each side of the shape and write it on the shape.

    b Find the perimeter of each shape. Give the answers in centimetres.

A	**B**	**C**
Perimeter	Perimeter	Perimeter
= _____ cm	= _____ cm	= _____ cm

Activity 2

1 **a** Find the perimeter of this square by adding the length of each
side together.

Perimeter = _____

= _____ cm

2 cm
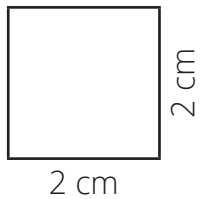
2 cm

b. Work with your partner.
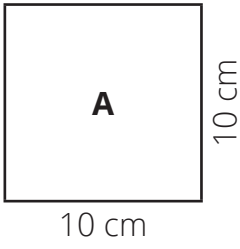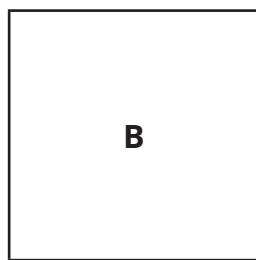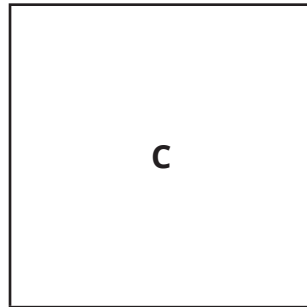
Try to find a quicker way of working out the perimeter of the square.

Write down your method.

_____

_____

_____

c. Complete the following sentence:

Perimeter of a square = 4 × _____

2 Use the formula to calculate the perimeter of each square.

A 10 cm 10 cm	B 24 cm 24 cm	C 75 m 75 m
Perimeter = _____ cm = _____ cm	Perimeter = _____ cm = _____ cm	Perimeter = _____ cm = _____ cm

Activity 3

1 Find the perimeter of this rectangle by adding the length of each side together.

3 cm
1 cm   1 cm
3 cm
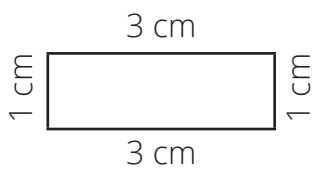
Perimeter = _____ cm + _____ cm + _____ cm + _____ cm

= _____ cm
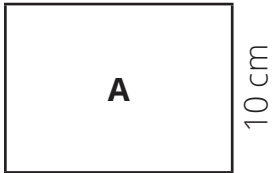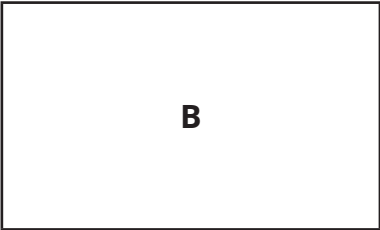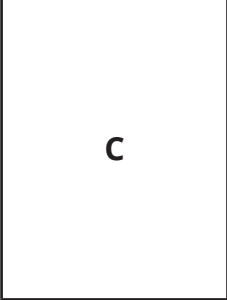
2. Work with your partner.

Try to find a quicker way of working out the perimeter of the rectangle.

Write down your method.

_____

_____

_____

3. Complete the number sentence:

Perimeter of a rectangle = 2 × _____

4. Use a short method to calculate the perimeter of each rectangle.

A — 12 cm, 10 cm	**B** — 42 cm, 28 cm	**C** — 49 cm, 98 cm
Perimeter	Perimeter	Perimeter
= 2 × _____	= _____	= _____
= 2 × _____	= _____	= _____
= _____ cm	= _____ cm	= _____ cm

HOMEWORK

Calculate the perimeter of each shape:

1

58 cm

24 cm

Rectangle A

Perimeter of rectangle A

= _____

= _____

= _____

2

7 m
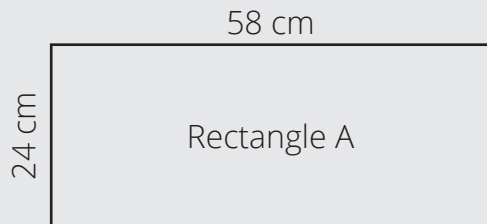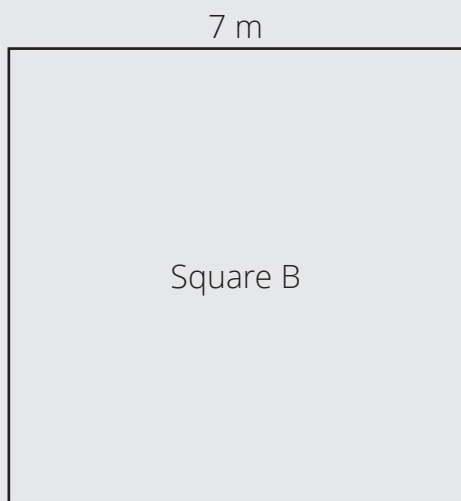
Square B

Perimeter of square A

= _____

= _____

= _____

3

17 cm

8 cm

Rectangle C

Perimeter of rectangle C

= _____

= _____

= _____

Lesson 18: Perimeter (2)

Mental maths

		Answer			Answer
1	3 + 8 =		**6**	9 + 8 =	
2	7 + 4 =		**7**	6 + 7 =	
3	9 + 7 =		**8**	18 + 0 =	
4	5 + 9 =		**9**	13 + 1 =	
5	8 + 8 =		**10**	4 + 8 =	

Link to previous lesson

Calculate the perimeter of the rectangle.

3 cm

2 cm
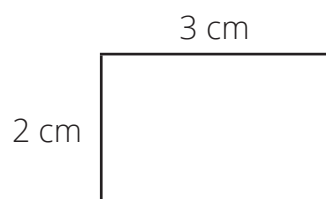
Activity 1

Discuss the questions and answers with your partner.

1 Use multiplication to find the perimeter of a square garden with sides of 163 metres.

163 m

_____

_____

2 This is a regular pentagon with each side 12 cm long.

A regular pentagon is a five-sided polygon with all sides of equal length.

12 cm

a How can you use multiplication to find the perimeter? Describe your method.

_____

_____

_____

b Use your method to find the answer.

_____

_____

3 This is a regular hexagon with each side 40 cm long.
A regular hexagon is a six-sided polygon with all sides of
equal length.

40 cm

a Explain how to find the perimeter of this regular hexagon.

_____

_____

_____

b Find the perimeter of this hexagon.

_____

_____

Activity 2

Discuss the questions and answers with your partner.

1 Find the perimeter of this shape

_____

_____

_____

_____

_____

_____

```
        3 m              2 m
    ┌──────┐        ┌──────┐
5 m │      │        │      │ 5 m
    │      └────────┘      │
    │         7 m          │
    └─────────────────────┘
            12 m
```

2 Find the perimeter of this shape

_____

_____

_____

_____

_____

```
            6 cm
    ┌─────────────────┐
    │                 │
    │      1 cm       │
5 cm│     ┌──┐        │ 5 cm
    │     │  │        │
    │     │  │ 3 cm   │
    │     │  │        │
    └─────┘  └────────┘
      2 cm      3 cm
```
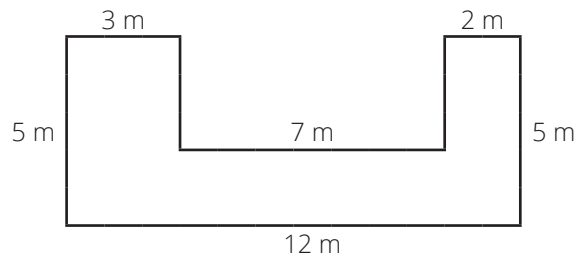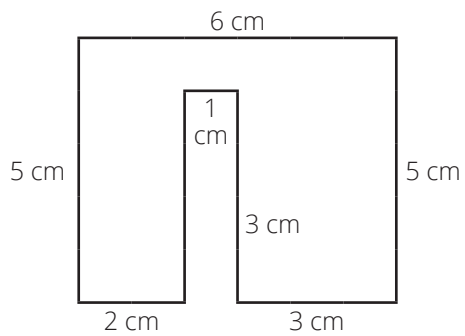
3 Mr Malingi wants to build a wire fence around his mealie field to keep the goats out of the field.

50 m

15 m
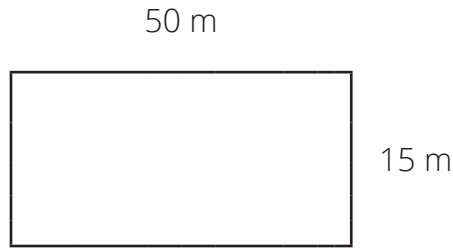
a. How many metres of wire will he need if he wants to build a fence with one strand of wire around the mealie field?

_____

_____

_____

_____

_____

_____

b. How many metres of wire will he need if he wants to build a fence with three strands of wire around the mealie field?

_____

_____

_____

_____

_____

_____
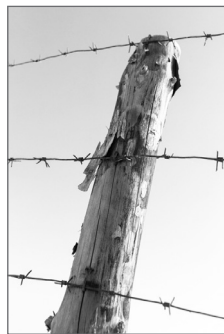
HOMEWORK

Find perimeter of the shapes below:

1

3 m

4 m

6 m

2 m

4 m

_____

_____

_____

_____

_____

_____

2

2 cm   2 cm

2 cm   2 cm

2 cm   2 cm

3 cm

2 cm

_____

_____

_____

_____

_____

_____
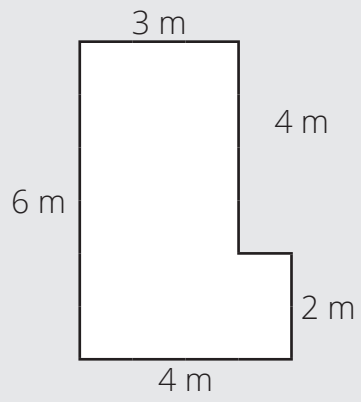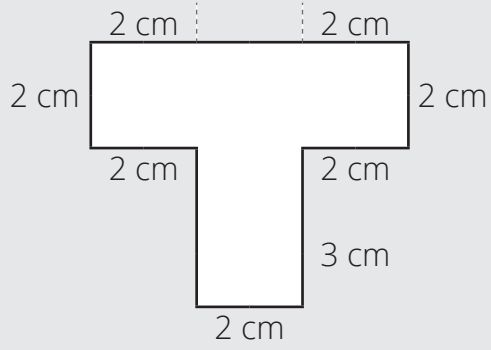
Lesson 19: Relationships between area and perimeter

Mental maths

		Answer			**Answer**
1	16 – 3 =		**6**	15 – 6 =	
2	14 – 6 =		**7**	15 – 5 =	
3	11 – 10 =		**8**	18 – 9 =	
4	13 – 7 =		**9**	13 – 9 =	
5	17 – 9 =		**10**	12 – 11 =	

Link to previous lesson

Find the perimeter of the rectangle.

7 m

3 m

Activity 1

Farmer Sizwe is measuring out a new vegetable garden on his farm.

He wants the garden to have an area of 25 m^2.

The garden could have different shapes, but he wants it to be a rectangle that will need the shortest length of fencing.

1. What two numbers give 25 when multiplied together?

   _____

   _____

2. Draw the gardens on the squared paper.

1 m

1 m

3. Work out the perimeter of each garden.

_____

_____

_____

_____

4. Which size garden has the smallest perimeter and so will need the shortest length of fencing?

_____

_____

Activity 3

Find the perimeter and the area of each of the following squares

1 Square with sides of 1 cm

Perimeter = _____

_____

Area = _____

_____

2 Square with sides of 2 cm
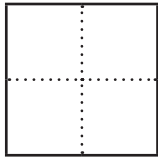
Perimeter = _____

_____

Area = _____

_____

3 Square with sides of 3 cm
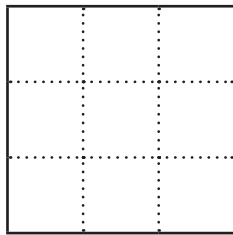
Perimeter = _____

_____

Area = _____

_____

HOMEWORK

1 Draw three rectangles:

Each rectangle should have an area of 16 cm^2.

One of the rectangles must be a square.
Remember a square is a special kind of rectangle.

1 cm
1 cm

2 Calculate the perimeter of each rectangle.

_____

_____

_____

_____

_____

_____

3 Which rectangle has the longest perimeter?

_____

Lesson 20: Consolidation

1   Thato says that if he runs along all four sides of the soccer field, he is running the <u>area</u> of the soccer field.

    a   Is Thato correct? _____

    b   Draw a diagram to explain your answer.

2   Sam says that if he tiles the kitchen floor, he is tiling the <u>perimeter</u> of the floor.

    a   Is Thato correct? _____

    b   Draw a diagram to explain your answer.
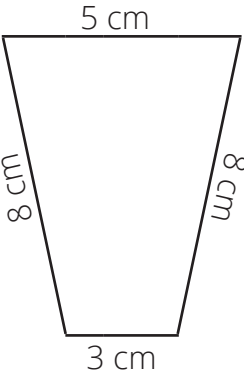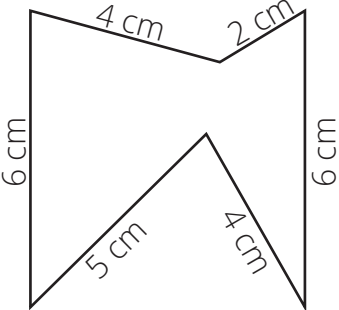
3 Match the measurement with the units of measurement.

Measurement	Unit
Perimeter	cm
	m^2
	m
Area	cm^2

4 Each square has sides of 1 cm.

Find the area of each shape in cm^2.

_____   _____   _____

_____   _____   _____

5 Find the perimeter of each shape.

6 a Calculate the area of a rectangle with a length of 70 cm and a breadth of 12 cm

_____

_____

b Calculate the area of a rectangle with a length of 6 m and a breadth of 900 cm

Remember to make sure that both measurements have the same units.

_____

_____

_____

_____

7 a Calculate the perimeter of a rectangle with a length of 83 cm and a breadth of 59 cm

_____

_____

b Calculate the perimeter of a rectangle with a length of 32 cm and a breadth of 12 cm

_____

_____

c Calculate the perimeter of a square with a side that is 35 m long

_____

_____

d Calculate the perimeter of a square with a side that is 18 cm

_____

8 Complete the table

	Length of rectangle	**Breadth of rectangle**	**Area of rectangle**	**Perimeter of rectangle**
a	3 m	2 m		
b	9 cm	8 cm		
c	6 m		24 m²	
d		8 m	64 m²	
e		5 cm	100 cm²	

Lesson 21: Grouping and sharing

Mental maths

		Answer			Answer
1	10 ÷ 2 =		**6**	6 ÷ 2 =	
2	2 ÷ 2 =		**7**	20 ÷ 2 =	
3	12 ÷ 2 =		**8**	8 ÷ 2 =	
4	4 ÷ 2 =		**9**	16 ÷ 2 =	
5	18 ÷ 2 =		**10**	14 ÷ 2 =	

Activity 2

Kate needs to buy 60 plastic cups.

The cups are sold in packets of 10 cups.

How many packets of cups does Kate need to buy?

1 Underline the numbers and the question in the word problem.

Kate needs to buy 60 plastic cups.

The cups are sold in packets of 10 cups.

How many packets of cups does Kate need to buy?

2 Use any of the strategies to find the answer and check the answer by using a different strategy from the first one.

Activity 3

There are 12 slices of bread

Naomi puts 4 slices of bread in a lunch box.

How many lunch boxes does she need?

1   Underline the numbers and the question in the word problem.

There are 12 slices of bread

Naomi puts 4 slices of bread in a lunch box.

How many lunch boxes does she need?

2   Use any of the strategies to find the answer and check the answer by using a different strategy from the first one.

HOMEWORK

Kate needs to buy 72 teaspoons.

The teaspoons are sold in packets of 8.

How many packets of spoons must Kate buy?

1   Underline the numbers and the question in the word problem.

Kate needs to buy 72 spoons.

The spoons are sold in packets of 8.

How many packets of spoons must Kate buy?

2 Draw a picture to show how you can find the answer.
(The 72 teaspoons have to be put into groups of 8.)

3 Complete the table to show how you can find the answer.

Number of packets	1	2	3	4	5	6
Number of plastic cups	10					

4 Write a multiplication number sentence to show the number of packets of spoons that Kate must buy.

_____

5 Write a division number sentence to show the number of packets of spoons that Kate must buy.

_____

Answer: Kate needs to buy _____ packets of spoons.

Lesson 22: Division with remainders

Mental maths

		Answer			Answer
1	10 ÷ 5 =		6	15 ÷ 5 =	
2	35 ÷ 5 =		7	25 ÷ 5 =	
3	20 ÷ 5 =		8	5 ÷ 5 =	
4	40 ÷ 5 =		9	30 ÷ 5 =	
5	50 ÷ 5 =		10	45 ÷ 5 =	

10 × 10 multiplication table

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Link to previous lesson

There is R30.

Each child gets R5.

How many children can get R5?

Activity 2

There are 39 mangoes.

Each box contains 4 mangoes.

If all mangoes must be in boxes, how many boxes do you need?

1   Read through the question three times with your partner.

2   Underline the numbers and the question.

There are 39 mangoes.

Each box contains 4 mangoes.

If all mangoes must be in boxes, how many boxes do you need?

3   Write a number sentence to show how you would work out the answer.

_____

4   Solve this division problem.

5   Discuss with your partner what the answer to the problem is. Write the final answer here.

_____

Activity 3

There are 46 eggs.

A shop sells eggs in an eggbox holding 6 eggs.

How many egg boxes can the shop fill?

1 Read through the question three times with your partner.

2 Underline the numbers and the question.

There are 46 eggs.

A shop sells eggs in a box that contains 6 eggs.

How many boxes can the shop fill?

3 Write down a number sentence to show how you would work out the answer.

_____

4 Solve the problem.

5 Write down the answer.

HOMEWORK

Find the answer. Check if the remainder is bigger or smaller than the number we are dividing by.

1 45 ÷ 8 = □

2 67 ÷ 10 = □

3 85 ÷ 9 = □

4 50 ÷ 6 = □

Lesson 23: Dividing 0 by a number

Mental maths

		Answer			Answer
1	12 ÷ 3 =		**6**	3 ÷ 3 =	
2	6 ÷ 3 =		**7**	15 ÷ 3 =	
3	24 ÷ 3 =		**8**	21 ÷ 3 =	
4	30 ÷ 3 =		**9**	9 ÷ 3 =	
5	18 ÷ 3 =		**10**	27 ÷ 3 =	

Activity 1

1 Find the missing numbers:

a 0 ÷ 2 = _____   **b** 0 ÷ 5 = _____

c 0 ÷ 9 = _____   **d** _____ ÷ 3 = 0

e _____ ÷ 6 = 0   **f** _____ ÷ 12 = 0

g 0 ÷ 11 = _____   **h** 0 ÷ _____ = 0

2 Complete the sentence:

When we divide zero by any number, the answer is _____

Activity 2

1 Complete each flow diagram by filling in the placeholders.

a 7 ⟶ 21

☐ 3

☐ 3

c 10 ⟶ 30

☐ ☐

☐ ☐

b 4 ⟶ ☐

× 3

÷ 3
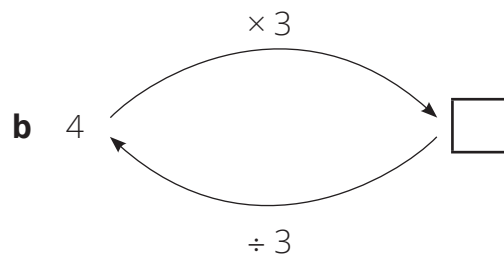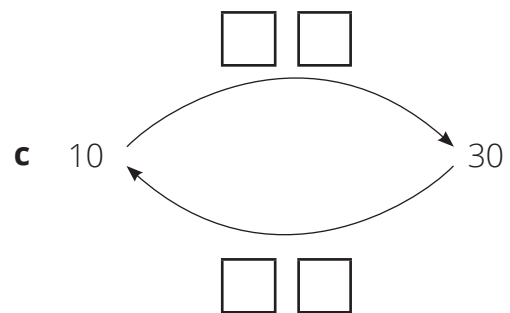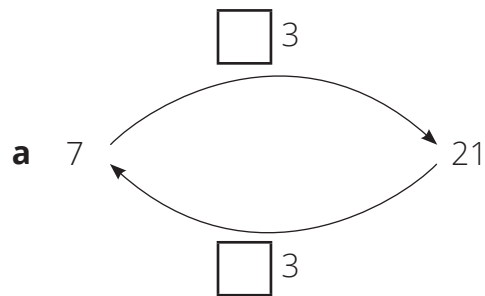
2 Calculate, and then check your answers by multiplying.

a. 42 ÷ 7 = _____   Check: _____ × 7 = _____

b. 100 ÷ 10 = _____   Check: _____ × 10 = _____

c. 27 ÷ 3 = _____   Check: _____ × 3 = _____

d. 56 ÷ 8 = _____   Check: _____ × 8 = _____

3 Complete the number sentence by filling in the answer and then show how you would check each calculation.

a 39 ÷ 7 = _____   Check: _____

b 92 ÷ 10 = _____   Check: _____

c 73 ÷ 9 = _____   Check: _____

d 45 ÷ 8 = _____   Check: _____

e 50 ÷ 6 = _____   Check: _____

f 61 ÷ 9 = _____   Check: _____

g 31 ÷ 4 = _____   Check: _____

h 91 ÷ 9 = _____   Check: _____

HOMEWORK

Find the answers and check if the answers are correct.

1 42 ÷ 6 = _____   Check: _____

2 49 ÷ 5 = _____   Check: _____

3 8 × 7 = _____   Check: _____

4 30 ÷ 4 = _____   Check: _____

Lesson 24: More division

Mental maths

		Answer			Answer
1	18 ÷ 3 =		**6**	15 ÷ 3 =	
2	9 ÷ 3 =		**7**	24 ÷ 3 =	
3	27 ÷ 3 =		**8**	12 ÷ 3 =	
4	6 ÷ 3 =		**9**	30 ÷ 3 =	
5	21 ÷ 3 =		**10**	0 ÷ 3 =	

Link to previous lesson

Find the answer to the division calculations. Check your answers.

1 56 ÷ 7 = _____   Check: _____

2 63 ÷ 9 = _____   Check: _____

3 40 ÷ 8 = _____   Check: _____

4 57 ÷ 6 = _____   Check: _____

Activity 1

1 Mother has R80.
   She wants to share the money equally among her 4 children.
   How much should each child get?

   a Underline the numbers and the question.

   Mother has R80.

   She wants to share the money equally among her 4 children.

   How much should each child get?
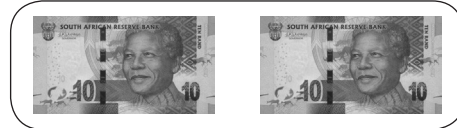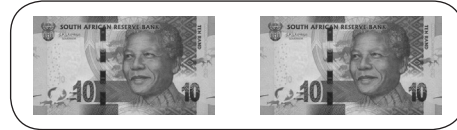
   b Write a number sentence.

   _____

   c Think about how you can calculate this:

   80 = 8 tens

   80 ÷ 4 = 8 tens ÷ 4

   = _____ tens

   = _____

   d Write the answer: Each child will get _____.

2 Find the answers by using the same strategy as question 1.

a 50 ÷ 5 = 5 tens ÷ 5 = _____ ten = _____

b 80 ÷ 2 = 8 tens ÷ _____ = _____ tens = _____

c 90 ÷ 9 = _____ tens ÷ _____ = _____ tens = _____

d 60 ÷ 3 = _____

Activity 2

1 It costs R69 for 3 bags of sugar.
How much will one bag of sugar cost?

    a Underline the numbers and the question

        It costs R69 for 3 bags of sugar.

        How much will one bag of sugar cost?

    b Write a number sentence.

        _____

    c Calculate the answer.

        $69 ÷ 3 = (60 + 9) ÷ 3 = ($_____ $÷ 3) + (9 ÷ 3) = $_____$ + $_____$ = $_____

    d Write the answer.

        It costs _____ for one bag of sugar.

2 Find the answers by using the same strategy as question 1.

    a $48 ÷ 4 = (40 + 8) ÷ 4$

               $= (40 ÷ _____) + (8 ÷ _____)$

               $= 10 + 2$

               $= (_____)$

b $84 \div 2 = ($ _____ $+$ _____ $) \div 2$

$= (80 \div 2) + (4 \div 2)$

$=$ _____ $+$ _____

$=$ _____

c $66 \div 6 = ($ _____ $+$ _____ $) \div 6$

$= ($ _____ $\div 6) + ($ _____ $\div 6)$

$=$ _____ $+$ _____

$=$ _____

d $96 \div 3 = ($ _____ $+$ _____ $) \div 3$

$= ($ _____ $\div 3) + ($ _____ $\div 3)$

$=$ _____ $+$ _____

$=$ _____

Activity 3

Calculate

1   70 ÷ 7 = _____ tens ÷ 7 = _____ ten = _____

2   80 ÷ 4 = _____ tens ÷ 4 = _____ tens = _____

3   60 ÷ 2 = _____

4   28 ÷ 2 = (20 + 8) ÷ 2

 = (_____ ÷ 2) + (_____ ÷ 4)

 = _____ + _____

 = _____

5   62 ÷ 2 = (_____ + _____) ÷ 2

 = (_____ ÷ 2) + (_____ ÷ 2)

 = ... + ...

 = ...

6   99 ÷ 3 = (90 + 9) ÷ 3

 = _____

 = _____

 = _____

HOMEWORK

Calculate

1 90 ÷ 3 = (_____ tens) ÷ 3

       = _____ tens

       = (30)

2 88 ÷ 4 = (_____ + _____) ÷ 4

       = (_____ ÷ 4) + (_____ ÷ 4)

       = _____ + _____

       = _____

3 63 ÷ 3 = (_____ + _____) ÷ _____

       = (_____ ÷ _____) + (_____ ÷ _____)

       = _____

       = _____

Lesson 25: Finding length and breadth of rectangles and squares

Mental maths

		Answer			Answer
1	8 ÷ 4 =		**6**	16 ÷ 4 =	
2	28 ÷ 4 =		**7**	4 ÷ 4 =	
3	20 ÷ 4 =		**8**	40 ÷ 4 =	
4	32 ÷ 4 =		**9**	24 ÷ 4 =	
5	0 ÷ 4 =		**10**	12 ÷ 4 =	

Activity 1

1 Find the length of the sides of a square with a perimeter of 32 m.

Write the number sentence: _____

Answer: The length of each side of the square is _____

2 Find the length of the sides of a square with a perimeter of 48 m.

Write the division number sentence: _____

Answer: The length of each side of the square is _____

_____

Activity 2

1 Find the breadth of a rectangle with an area of 30 m^2 and a length of 10 m.

Write the division number sentence: _____

Answer: The breadth of the rectangle is _____

2 Find the breadth of a rectangle with an area of 42 cm^2 and a length of 7 cm.

Write the division number sentence: _____

Answer: The breadth of the rectangle is _____

3 Find the length of a rectangle with an area of 60 cm^2 and a breadth of 6 cm.

Write the division number sentence: _____

Answer: The length of the rectangle is _____

4 Find the length of a rectangle with an area of 45 m^2 and a breadth of 5 m.

Write the division number sentence: _____

Answer: The length of the rectangle is _____

Activity 3

Fill in the missing measurements:

Note: **a** and **b** are squares.

a _____ m

$16\ m^2$

b

$49\ cm^2$ _____ cm

c 9 m

$27\ m^2$ _____ m

d 2 cm

$12\ cm^2$ _____ cm
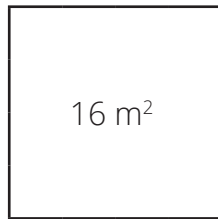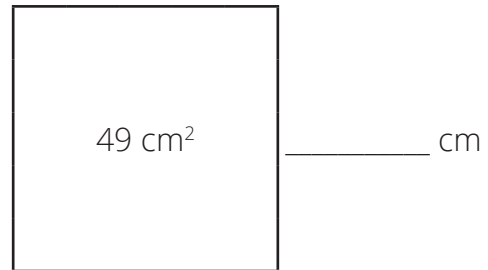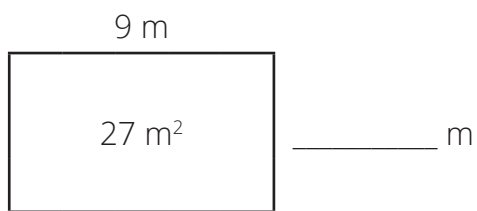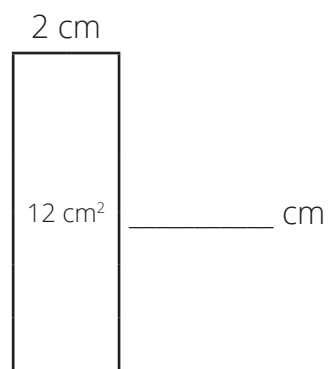
HOMEWORK

1 Find the length of the sides of a square with a perimeter of 24 m.

   Write the division number sentence: _____

   Answer: The length of each side of the square is _____

2 Find the breadth of a rectangle with an area of 72 cm^2 and a length of 9 cm.

   Write the division number sentence: _____

   Answer: The breadth of the rectangle is _____

Lesson 26: Long division

Mental maths

		Answer			**Answer**
1	24 ÷ 4 =		**6**	8 ÷ 4 =	
2	16 ÷ 4 =		**7**	0 ÷ 4 =	
3	32 ÷ 4 =		**8**	36 ÷ 4 =	
4	12 ÷ 4 =		**9**	4 ÷ 4 =	
5	40 ÷ 4 =		**10**	28 ÷ 4 =	

Link to previous lesson

Fill in the missing measurements.

_____ m

_____

4 m
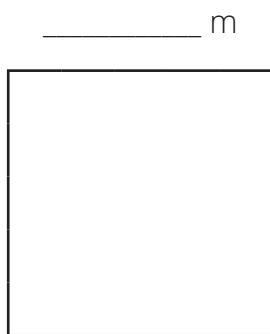
This is a square.

The perimeter = 28 m
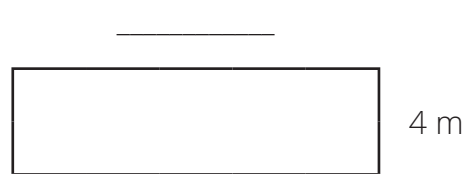
This is a rectangle.

The area = 36 m^2.

Activity 1

Use simplified pictures to work out the answer to 72 ÷ 3 = □

T	O

Use long division to find the answer to 72 ÷ 3 = □

Activity 2

1 Solve 78 ÷ 6 = ☐ using long division.

Which times table must you use for this long division example? _____

Answer: 78 ÷ 6 = _____

2 Solve 96 ÷ 4 = ☐ using long division.

Which times table must you use for this long division example? _____

Answer: 96 ÷ 4 = _____

Activity 3

1 Solve 85 ÷ 5 = ☐ using long division.

Which times table must you use for this long division example? _____

T **O**

Answer: 85 ÷ 5 = _____

2 Solve 90 ÷ 2 = ☐ using long division.

Which times table must you use for this long division example? _____

T **O**

Make sure that when the remainder is 0, you write the 0 in the One's column.

Answer: 90 ÷ 2 = _____

HOMEWORK

1 Solve 91 ÷ 7 = □ using long division.

Which times table must you use for this long division example? _____

	T	O

Answer: 91 ÷ 7 = _____

Check your answer by using multiplication.

	H	T	O

Answer: _____

Lesson 27: Long division with a remainder

Mental maths

		Answer			Answer
1	18 ÷ 6 =		**6**	24 ÷ 6 =	
2	48 ÷ 6 =		**7**	36 ÷ 6 =	
3	60 ÷ 6 =		**8**	6 ÷ 6 =	
4	12 ÷ 6 =		**9**	54 ÷ 6 =	
5	30 ÷ 6 =		**10**	42 ÷ 6 =	

Link to previous lesson

Use long division to solve 60 ÷ 4 = □.

Which times table will we use to do this long division? _____

T   O

Answer: 60 ÷ 4 = _____

Activity 2

Solve the following using long division.

1   97 ÷ 8 = ☐   **2**   91 ÷ 4 = ☐   **3**   80 ÷ 6 = ☐

	T	**O**

	T	**O**

	T	**O**

97 ÷ 8   91 ÷ 4   80 ÷ 6

= _____   = _____   = _____

Check the answer   Check the answer   Check the answer

_____   _____   _____

_____   _____   _____

Activity 3

1 Tia calculated 78 ÷ 5 like this:

	T	O
	1	4
5	7	8
–	5	
	2	8
–	2	0
		8

78 ÷ 5 = 14 remainder 8

a Explain to Tia how you know that her calculation is wrong.

_____

_____

b Redo the calculation to show Tia the correct answer.

	T	O

78 ÷ 5 = _____

2 You have 85 cm piece of string. How many 6 cm pieces can you make from this piece?

	T	O

Answer: I can make _____ pieces of string and I will have _____cm left over.

HOMEWORK

Solve 83 ÷ 6 = □ using long division.

	T	O

83 ÷ 6 = _____

Check the answer _____

_____

Lesson 28: Long division with and without a remainder

Mental maths

		Answer			Answer
1	0 ÷ 6 =		**6**	30 ÷ 6 =	
2	24 ÷ 6 =		**7**	18 ÷ 6 =	
3	42 ÷ 6 =		**8**	48 ÷ 6 =	
4	54 ÷ 6 =		**9**	6 ÷ 6 =	
5	12 ÷ 6 =		**10**	36 ÷ 6 =	

Link to previous lesson

Solve 89 ÷ 3 = □ using long division, and then check your answer.

```
      T   O
   _____
  |
  |
  |
  |
  |
  |
```

89 ÷ 3 = _____

Check your answer _____

_____

Activity 1

1 There are 98 children in Grade 4.

3 children can sit at one desk.

How many desks are needed for every child to have a seat?

a Underline the numbers and the question.

b Write a number sentence to find the answer to this problem?

_____

c Which times table will we use to do this long division?

_____

d Do the division and then check your answer.

T	O

$98 ÷ 3 =$ _____

Check your answer:

_____

e What should we do about the remainder?

_____

f How many desks do we need? _____

2 Solve each division calculation. Use long division.

a 93 ÷ 3 = ☐

T	O

93 ÷ 3 = _____

Check the answer:

_____

b 49 ÷ 2 = ☐

T	O

49 ÷ 2 = _____

Check the answer:

_____

c   60 ÷ 6 = ☐

	T	**O**

60 ÷ 6 = _____

Check the answer:

_____

Activity 2

1 I have 52 m of wire.

I need to cut pieces of wire that are 5 m long from it.

How many pieces of wire will I get?

a Underline the numbers and the question.

b Write down the number sentence.

_____

c Which times table will we use to do this long division?

_____

d Do the long division.

$52 \div 5 =$ _____

Check your answer:

_____

e How many pieces of wire will I get? _____

2 Solve. Use long division.

a   83 ÷ 4 = ☐   **b**   63 ÷ 6 = ☐   **c**   91 ÷ 3 = ☐

	T	O

	T	O

	T	O

83 ÷ 4   63 ÷ 6   91 ÷ 3

= _____   = _____   = _____

Check the answer   Check the answer   Check the answer

_____   _____   _____

_____   _____   _____

Activity 3

There are 852 bricks.

They have to be loaded on 3 trucks so that each truck has the same number of bricks.

How many bricks will go on each truck?

1 Underline the numbers and the question.

2 Write a number sentence: _____

3 Which times table will we use to do this long division? _____

4 Complete this long division:

	H	T	O

852 ÷ 3 = _____

5 How many bricks are there on each truck? _____

HOMEWORK

Solve 828 ÷ 6 = □ using long division.

	H	**T**	**O**

Answer: _____

Lesson 29: Consolidation

1 Find the length of one side of this square.

The perimeter = 32 m.
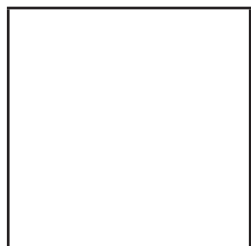
Length = _____

2 Find the breadth of this rectangle.

8 cm

Area = 56 cm^2
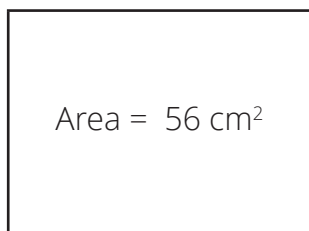
Breadth = _____

3 David sells bags with 10 oranges each.
How many bags can he fill if he has 45 oranges?

_____

_____

David can fill _____ bags of oranges.

4 A taxi can carry 7 passengers.
How many taxis will be needed for 789 passengers?

a Write the number sentence.

_____

b Use long division to find out how many taxis will be needed.

H	**T**	**O**

Answer: _____

How many taxis are needed? _____

c Explain your answer.

_____

5 Match the division calculation with the multiplication check.

Remember: the brackets show what we should do first.

Division calculation	Multiplication check
	$(4 \times 19) + 3$
$96 \div 8 = 12$	
	$8 \times 12 = 96$
$79 \div 4 = 19$ reminder 3	$(1 \times 28) + 3$
	$(3 \times 28) + 1$
$85 \div 3 = 28$ remainder 1	
	$(19 \times 3) + 4$

6 Optional

The perimeter of this rectangle = 26 cm.
Find the length of this rectangle.

4 cm

? cm
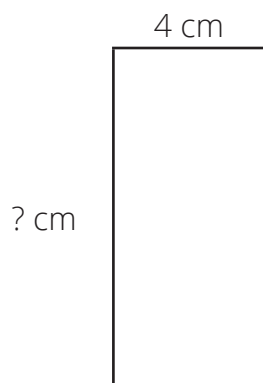
Use the formula:

Perimeter of a rectangle = 2 × (length + breadth)

_____

_____

_____

_____

Answer: The length of the rectangle is _____

Lesson 30: Common fractions and decimal fractions

Mental maths

		Answer			Answer
1	3 + 9 =		**6**	18 + 0 =	
2	8 + 7 =		**7**	1 + 9 =	
3	7 + 4 =		**8**	9 + 5 =	
4	9 + 6 =		**9**	10 + 4 =	
5	8 + 9 =		**10**	8 + 8 =	

Link to previous lesson

Look at the scale on the 1 ℓ container.

How many equal parts is the scale divided into? _____
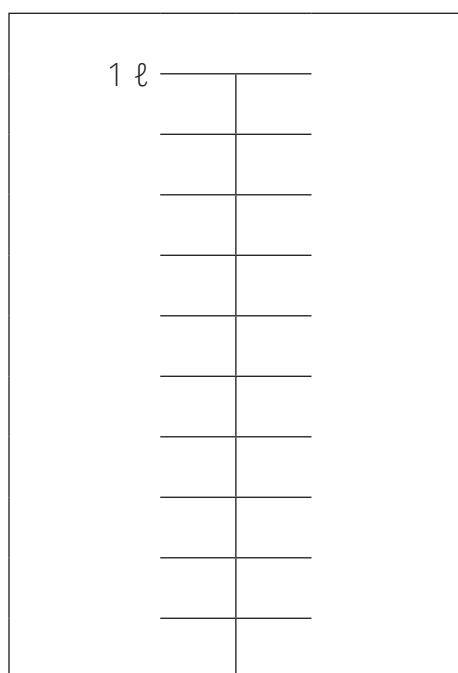
What does one calibration or mark show or represent? _____

Activity 1

Work with the whole class to answer these questions.

1 Look at this measuring jug.
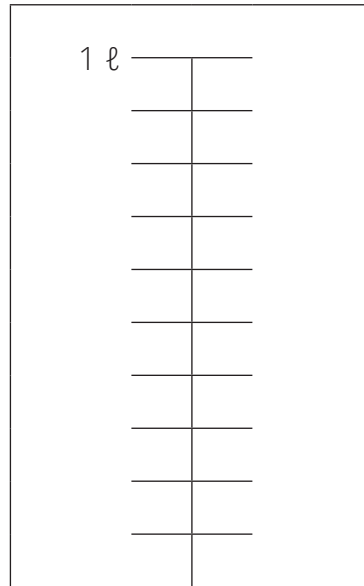
How many parts is the scale divided into? _____

Draw a line to show $\frac{1}{10}$ℓ on the measuring jug.

2 Draw a line to show $\frac{3}{10}$ℓ on the measuring jug.
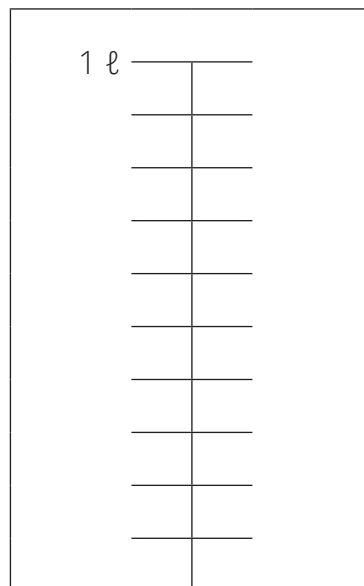
3 Write down how much water is in these two measuring jugs.
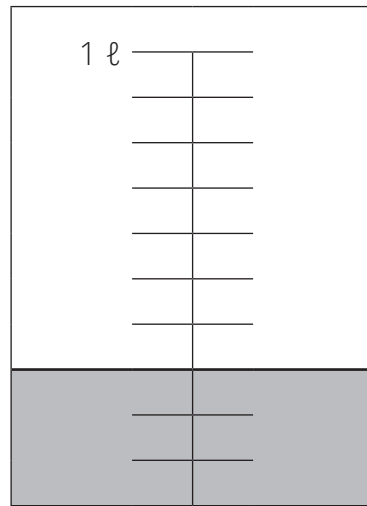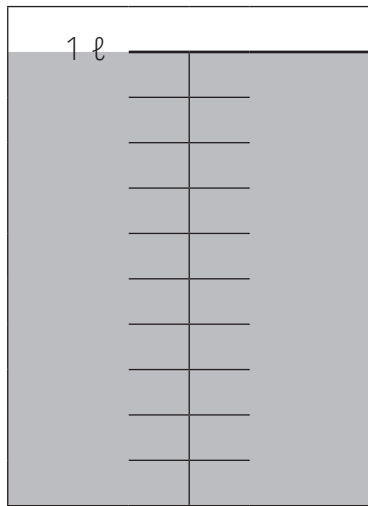
There is _____ litre and 0,_____ litres of water in the two measuring jugs.

So, we have _____ water in the two measuring jugs

Activity 2

Work with your partner.

1 Write the capacity of each container as a common fraction and as a decimal fraction:
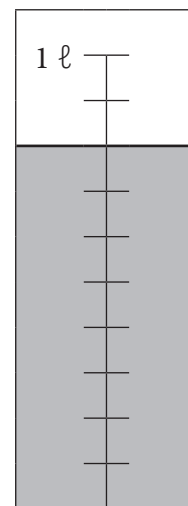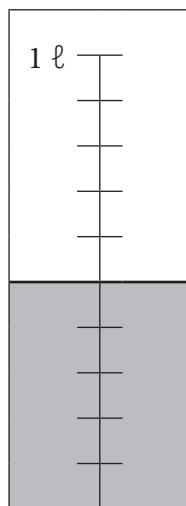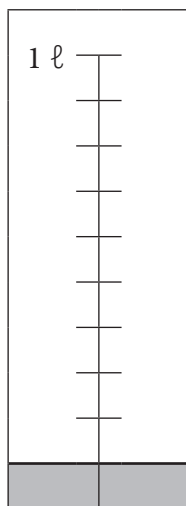
a $\dfrac{}{10}$ litres = _____ litres   **b** —— litres = _____ litres   **c** —— litres = _____ litres

2 Shade in 1,7 litres on these two containers.
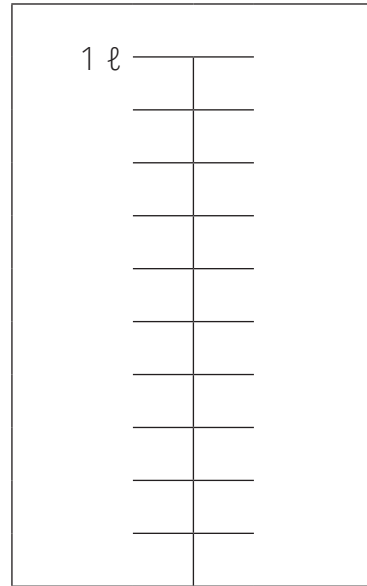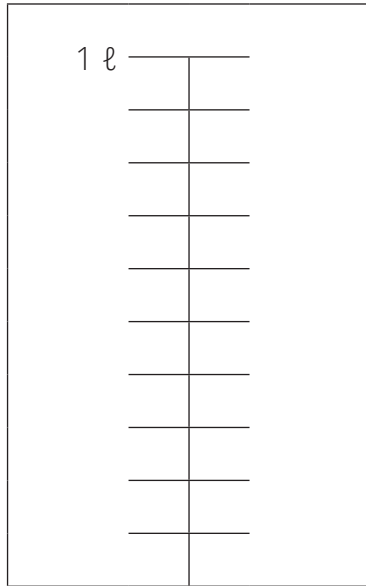
Activity 3

Work on your own.

1 Write the decimal fraction for each common fraction:

a $\dfrac{2}{10} = 0,\text{\_\_\_}$ **b** $\dfrac{9}{10} = \text{_____}$ **c** $\dfrac{4}{10} = \text{_____}$

2 Write the common fraction for each decimal fraction:

a $0,6 = \dfrac{}{10}$ **b** $0,8 = \dfrac{}{}$ **c** $0,7 = \dfrac{}{}$

HOMEWORK

1 Each circle has been divided into 10 equal parts.
   Write each of the shaded areas as a common fraction and as a
   decimal fraction:
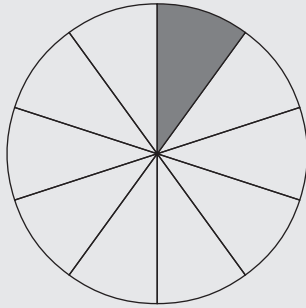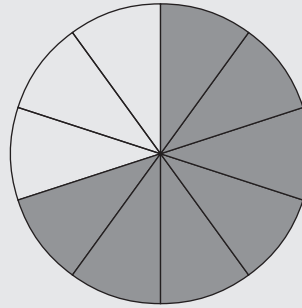
$$\frac{}{10} = 0,\underline{}$$

$$\frac{}{} = \underline{}$$

2 Shade in 0,7 on the diagram.

Lesson 31: Counting in decimal fractions

Mental maths

		Answer			Answer
1	10 – 4 =		**6**	18 – 9 =	
2	12 – 2 =		**7**	13 – 7 =	
3	15 – 12 =		**8**	11 – 5 =	
4	12 – 4 =		**9**	16 – 11 =	
5	14 – 6 =		**10**	17 – 8 =	

Link to previous lesson

Answer these questions.

1 Show 0,9 on the diagram.

2

1 ℓ
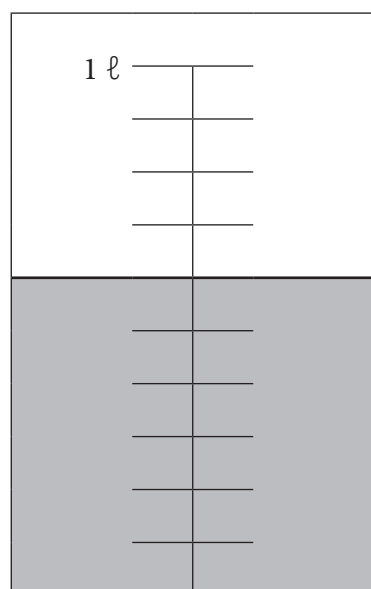
Write the fraction of water in this container as:

a a decimal fraction: _____ litre

b a common fraction: ⸺ litre

Activity 1

Work with the whole class.

1 Use the ruler. Measure the length of line A and line B.

A ─────────────────────────────
B ─────────────────────────

	1	2	3	4	5	6	7	8	9	10	11	12	13	

cm
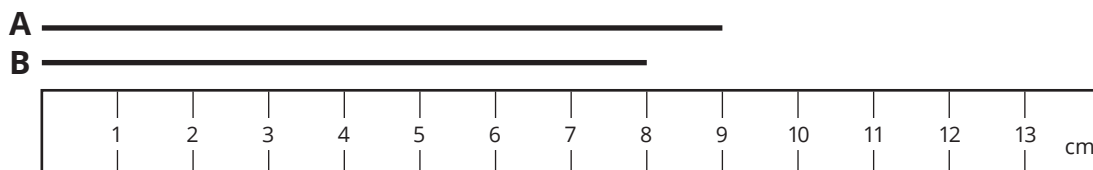
Length of line A = _____ cm

Length of line B = _____ cm

2 Look at the ruler.

mm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	cm

Into how many equal parts is 1 centimetre divided? _____

Now answer these:

a There are _____ mm in one cm.

b 1 mm = $\dfrac{}{10}$ cm.

c We can write $\dfrac{1}{10}$ cm as 0,____ cm.

3   What is the length of line C?
Write your answer under the ruler. Give your answer in cm and mm and
in cm only.

C ─────────────────────

Length of line C is _____ cm and _____ mm long.

Length of line C is _____ m long.

Activity 2

Work with your partner.

1   Show the position of the following numbers on the number line:

a   0,2   **b**   0,7   **c**   1,1   **d**   1,5   **e**   1,7

2   Use the number line to help you.
Write the next four numbers in each number pattern.

a. 0,4; 0,5; 0,6; _____ ; _____ ; _____ ; _____

b. 1,8; 1,6; 1,4; _____ ; _____ ; _____ ; _____

c. 0,4; 0,6; _____ ; _____ ; _____ ; _____

Activity 3

Work on your own

Fill in the missing numbers.

1   7 mm = _____ cm

2   0,4 cm = _____ mm

3   5 cm 8 mm = _____ cm

4   2,1 cm = _____ cm _____ mm

5   4,6 cm = _____ cm _____ mm

6 $3 \frac{5}{10}$ cm = _____ cm

HOMEWORK

Draw a line to match the number in Column A with the decimal fraction in Column B.

Column A	Column B
8 mm	5,3 cm
5 cm 3 mm	8,9 cm
$\frac{3}{10}$ mm	0,8 cm
8 cm 9 mm	0,3 mm

Lesson 32: Which decimal fraction is bigger?

Mental maths

		Answer			Answer
1	15 + 5 =		**6**	9 + 29 =	
2	18 + 7 =		**7**	36 + 6 =	
3	9 + 12 =		**8**	18 + 8 =	
4	62 + 8 =		**9**	25 + 6 =	
5	26 + 4 =		**10**	7 + 17 =	

Link to previous lesson

Fill in 0,4; 0,9; 1,1; 1,5 and 1,9 on the number lines.

Activity 2

1 Show 0,4; 1,2 and 2,7 on the number line.

2 Themba wants to find out which number is bigger: 0,8 or 1,4.

a Plot 0,8 and 1,4 on the number line.

Explain to Themba how the number line tells us which number is bigger.

_____

_____

b How many 0,1s are there in 0,8? _____

How many 0,1s are there in 1,4? _____

Explain to Themba how knowing the number of 0,1s in a number tells us which number is bigger.

_____

_____

3 **a** How many 0,1s make 3,2? _____

b How many 0,1s are there in 5? _____

c How many Ones and tenths (or 0,1s) make 6,2?

_____ Ones and _____ tenths.

Activity 3

Work on your own.

Write < or > to make each number sentence true.

1 1, 3 _____ 1,7

2 0,6 _____ 0,5

3 1 _____ 0,9

4 2,8 _____ 3

5 1,2 _____ 1,5

6 3,4 _____ 2,9

7 6,5 _____ 5,6

8 7,7 _____ 8,1

HOMEWORK

1 Show 1,8 on the number line.

2 How many Ones and tenths make 1,8? _____

3 How many tenths make 1,8? _____

4 Is 1,1 bigger or smaller than 1,8? _____

Lesson 33: Compare decimal fractions and common fractions

Mental maths

		Answer			Answer
1	13 + 16 =		**6**	36 + 60 =	
2	48 + 10 =		**7**	74 + 11 =	
3	24 + 15=		**8**	15 + 43 =	
4	12 + 54 =		**9**	20 + 52 =	
5	20 + 11 =		**10**	34 + 34 =	

Link to previous lesson

1 Show how you can use a number line to work out how many 1s and 0,1s there are in 3,9.

There are _____ 1s and _____ 0,1s

2 Show how you can use a place value table to work out how many 1s and 0,1s there are in 3,9.

O	,	t
3	,	9
One's place		$\frac{1}{10}$'s place

There are _____ O's and _____ t's in 3,9

Activity 2

Work with your partner.

1   Sibu walks $\frac{9}{10}$ km to school.

Mary walks 0,8 km to school.

Who walks further?

Use the number line to show how you got your answer.

```
←———|———|———|———|———|———|———|———|———|———|———|———→
    0                                              1
```
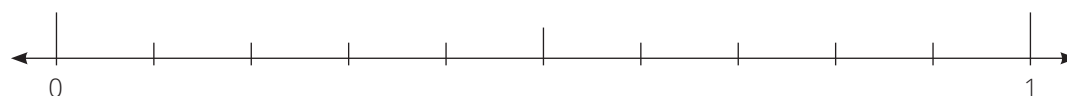
Answer: _____ walks further.

2   Joe drank $\frac{2}{10}$ litre milk in the morning.

Joe drank 0,7 litre juice in the afternoon.

Did Joe drink more milk or more juice?

Use the number line to show how you got your answer.

```
←———|———|———|———|———|———|———|———|———|———|———|———→
    0                                              1
```
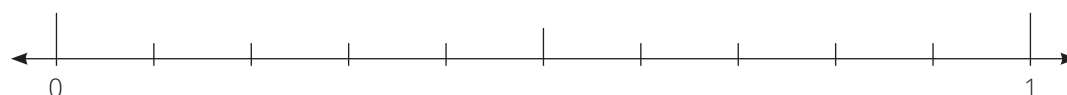
Answer: Joe drank more _____.

Activity 3

Work on your own

Write <, > or = to make each number sentence true.

1 $\dfrac{7}{10}$ ___ 0,6

2 0,9 ___ $\dfrac{9}{10}$

3 1,2 ___ $1\dfrac{6}{10}$

4 0,5 ___ $\dfrac{8}{10}$

5 $1\dfrac{4}{10}$ ___ 1,4

6 $\dfrac{10}{10}$ ___ 0,6

7 0,5 ___ $\dfrac{1}{2}$

8 $\dfrac{3}{5}$ ___ 0,7

HOMEWORK

Who lives closest to school?

Annie lives 4,5 km from school.

Sam lives 3,9 km from school.

Mkhize lives 4,6 km from school.

Answer the question by completing each statement:

1 Annie lives _____ whole kilometres and _____ kilometres from school.

2 Sam lives _____ whole kilometres and _____ kilometres from school.

3 Mkhize lives _____ whole kilometres and _____ kilometres from school.

4 _____ lives closest to school.

---

154 Grade 4 Mathematics

Lesson 34: Adding decimal fractions (1)

Mental maths

		Answer			Answer
1	15 + 25 =		**6**	16 + 16 =	
2	29 + 43 =		**7**	48 + 37 =	
3	44 + 36 =		**8**	27 + 53 =	
4	23 + 18 =		**9**	41 + 49 =	
5	27 + 24 =		**10**	29 + 47 =	

Link to previous lesson

The square represents 1 whole.
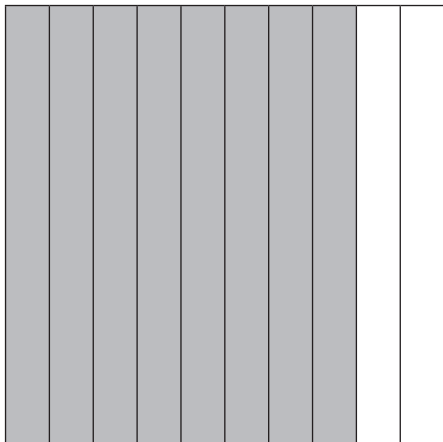
Write the shaded part of the block as:

1 a common fraction _____

2 a decimal fraction _____

Activity 1

Work on this Activity with the whole class.

Write the digits in the correct columns.

		H	T	O	,	t
1.	28,7					
2.	136,4					
3.	204,3					
4.	0,5					
5.	671					
6.	120,8					
7.	0,9					

Activity 2

Work with their partner

1 Write down how you can add 0,3 and 0,5.

2 Use the number line to add 0,6 and 0,8.
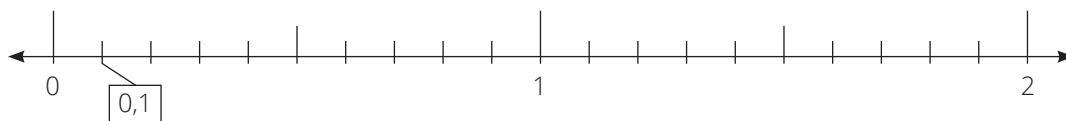
3 Rita ran 3,4 km on Saturday and
5,2 km on Sunday.
How far did Rita run altogether?

Underline the numbers and the question.

Write a number sentence to describe the problem: _____

Fill in the Place Value labels on the Place Value table.

Write the numbers on the table.

Do the calculation.

How many kilometres did Rita run altogether?

Rita ran _____ km altogether.

Now answer **4** on your own.

4 Mother needs 1,8 kg of flour to make bread and
2,3 kg of flour to bake scones.
How much flour does mother need if she wants to bake bread and scones?

a Underline the numbers and the question in the word problem.

b Write a number sentence to describe the problem: _____

c Use the column method to calculate the answer.

	T	O	,	t

d Answer: Mother needs _____ kg of flour to bake bread and scones.

Activity 3

Work on your own.

1   Use the column method to calculate 0,7 + 9,5 = □.

	H	T	O	,	t

The answer is _____.

2 Use the column method to calculate 26,7 + 78,3 = □.

	H	T	O	,	t

The answer is _____.

HOMEWORK

Use the column method to calculate 62,9 + 57,6 = □.

	H	T	O	,	t

The answer is _____.

Lesson 35: Adding decimal fractions (2)

Mental maths

		Answer			Answer
1	13 – 9 =		**6**	24 – 5 =	
2	10 – 8 =		**7**	31 – 9 =	
3	15 – 7 =		**8**	23 – 6 =	
4	20 – 5 =		**9**	42 – 7 =	
5	12 – 5 =		**10**	57 – 8 =	

Link to previous lesson

Use the column method to calculate 26,7 + 78,3 = □.

H	T	O	,	t

The answer is _____.

Activity 1

Work with your partner.

1 Read the numbers and write the digits in the correct places of the Place Value table.
Then rewrite decimal fractions in metres and centimetres.

	Read	H	T	O	,	t	h	Metres and centimetres
a	42,39 m							
b	138,48 m							
c	571,09 m							
d	0,34 m							
e	606,21 m							

2 Let's think about money.

   a How do we write R1 in the Place Value table?

H	T	O	,	t	h

   b How do we write R1,50 in the Place Value table?

H	T	O	,	t	h

   Write R1,50 in words: _____

Activity 2

1 Work with your class.

Ivy paid R8,65 for bread and
R11,30 for milk.
How much did Ivy pay altogether?

a Underline the numbers and the question in the word problem.

b Write a number sentence for the problem. _____

c Use the column method to calculate the answer.

T	O	,	t	h

d. Write the answer to the question:

Ivy paid _____

2 Work with your partner.

Peter was 1,36 m tall last year.
He grew 0,15 m this year.
How tall is Peter now?

a Underline the numbers and the question in the word problem.

b Write a number sentence for the problem. _____

c Use the column method to calculate the answer.

T	O	,	t	h

d. Write the answer to the question:

Peter is _____ m tall.

HOMEWORK

Calculate:

	T	O	,	t	h
	4	5	,	7	5
+	3	6	,	2	5

Lesson 36: Subtracting decimal fractions (1)

Mental maths

		Answer			Answer
1	46 – 13 =		**6**	97 – 80 =	
2	27 – 10 =		**7**	55 – 41 =	
3	39 – 33 =		**8**	52 – 50 =	
4	74 – 60 =		**9**	68 – 27 =	
5	19 – 11 =		**10**	84 – 12 =	

Link to previous lesson

Calculate:

	T	O	,	t	h
	4	8	,	2	3
+	3	9	,	8	7

Activity 1

1 Work with your class.
Mother had 1,5 metres of material.
She used 1,2 metres to make curtains.
How much material does she have left?

    a Underline the numbers and the question in the word problem.

    b Write a number sentence to describe the problem. _____

    c Use the column method to calculate the answer.

T	O	,	t

    d. Write the answer to the question:

        Mother has _____ m of material left.

2 Work with your partner.
Before the rain, the dam was 19,4 m deep.
After the rain, the dam was 23,2 m deep.
By how much did the level of the water change?

    a Underline the numbers and the question in the word problem.

    b Write a number sentence to describe the problem. _____

    c Use the column method to calculate the answer.

T	O	,	t

    d. Write the answer to the question:

        The level of the water has changed by _____.

Activity 2

Work with your partner.

The list shows the distances jumped in a long jump competition.

Basetsana	4,3 m
Nhlovo	4,2 m
Josefa	3,8 m
Khana	5,1 m
Dineo	4,9 m
Horisami	4,5 m

1 Arrange the distances from longest to shortest. _____

2 Who jumped the furthest? _____

3 We want to know how much further Khana jumped than Josefa.

   a Write a number sentence to describe the problem. _____

   b Use the column method to work out the answer.

O	,	t

   c Write the answer:

     Khana jumped _____ further than Josefa.

4 We want to calculate the sum of the three shortest jumps.

   a Write a number sentence to describe the problem. _____

   b Use the column method to work out the answer.

H	O	,	t

   c Write the answer:

     The sum of the three shortest jumps is _____.

Activity 3

Work on your own.

Calculate

1   a   Use the column method to calculate 32,4 – 8,9 = □

	T	**O**	**,**	**t**

The answer is _____

b   Write the answer rounded off to the nearest One.

- Underline the digit in the One's place and circle the digit in the next smaller place: _____

- Look at the digit in the One's place. Do we round it up or do we round it down or do we leave it as it is? _____

- Give the answer rounded off to the nearest One: _____

2   a   Use the column method to calculate 42 – 39, 7 = □

	T	**O**	**,**	**t**

The answer is _____

b Write the answer rounded off to the nearest One.

- Underline the digit in the One's place of the answer.

  Circle the digit in the tenth's place: _____

- Look at the digit in the One's place.

  Do we round it up or do we round it down or do we leave it as it is?

  _____

- Give the answer rounded off to the nearest One: _____

HOMEWORK

Use columns to calculate: 76,4 – 7,8 = ☐

	T	O	,	t

The answer is 76,4 – 7,8 = _____

Lesson 37: Subtracting decimal fractions (2)

Mental maths

		Answer			Answer
1	20 – 16 =		**6**	77 – 59 =	
2	31 – 29 =		**7**	35 – 27 =	
3	50 – 43 =		**8**	51 – 42 =	
4	23 – 17 =		**9**	95 – 68 =	
5	45 – 36 =		**10**	91 – 56 =	

Link to previous lesson

Calculate: 3,5 – 2,9 = □

T	O	,	t

The answer is _____

Activity 1

Work with your class and then finish the work on your own.

Tshilidzi has R16,30.

Zwanga has R20,10.

How many more R1 coins does Tshilidzi need so that she has almost the same amount of money as Zwanga?

1   Underline the numbers and the question in the word problem.

2   Write a number sentence to describe the problem: _____

3   Use the column method to calculate the answer.

	T	O	,	t	h

4   Write the answer to the subtraction:

Tshilidzi has _____ less than Zwanga.

5   To find out how many R1 coins Tshilidzi needs so that she has the same amount of money as Zwanga, we have to round off the answer to the nearest Ones.

Write the answer to the subtraction here: _____

Underline the digit in the Ones place because it is the place to be rounded: _____

Then circle the digit to the right of that number (the one in the tenth's position): _____

Do we round the digit in the one's place up, or down, or leave it as it is?

_____

What is the answer rounded to the nearest One? _____

6   How many more R1 coin does Tshilidzi need to have nearly the same amount of money as Zwanga?

_____

Activity 2

Nkosi bought food which cost R16,98.

How much change should he get if he paid with a R50 note?

Remember: There are no 1 cent, 2 cent or 5 cent coins, so the shopkeeper must **round up** the change.

1   Underline the numbers and the question in the word problem.

Nkosi bought food which cost R16,98.

How much change should he get if he paid with a R50 note?

2   Write a number sentence to describe the problem: _____

3   Use the column method to calculate the answer.

T	O	,	t	h

4   Remember, there are no longer 1 cent, 2 cent or 5 cent coins, so the shopkeeper rounds *up to the nearest 10 cents* when giving change.

Write the answer to the subtraction here: _____

Underline the digit in the tenth's position and circle the digit in the hundredth's position: _____

Because there are no 2 cent coins, we round the digit in the tenth's position up, even though the digit in the hundredth's position is less than 5.

How much change should Nkosi get? _____

5   Why must the shopkeeper round the change up?

_____

_____

_____

Activity 3

1 Calculate: 50,46 – 49,53 = ☐
Give the answer rounded off to the nearest tenth.

    a Use the column method to find the answer.

	T	O	,	t	h

        50,46 – 49,53 = _____

    b Round the answer off to the nearest tenth.

       Underline the digit in the tenth's position and circle the digit in the hundredth's position: _____

       What is the answer rounded to the nearest tenth? _____

2 Calculate 68 – 58,35 = ☐
Give the answer rounded off to the nearest tenth.

    a Use the column method to find the answer.

	T	O	,	t	h

        68 – 58,35 = _____

    b Round the answer off to the nearest tenth.

       Underline the digit in the tenth's position and circle the digit in the hundredth's position: _____

       Look at the digit in the tenth's place. Do we round it up or leave it as it is? _____

       What is the answer rounded to the nearest tenth? _____

HOMEWORK

Use the column method to calculate: 19,25 – 13,99 = ☐

	T	O	,	t	h

The answer is 19,25 – 13,99 = _____

Lesson 38: Consolidation

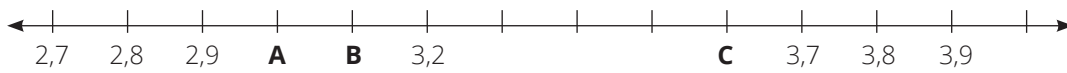**1** Write the common fractions as decimal fractions.

a $\frac{7}{10}$ = _____   **b** 3 and $\frac{1}{10}$ = _____

c $\frac{23}{100}$ = _____   **d** $\frac{9}{100}$ = _____
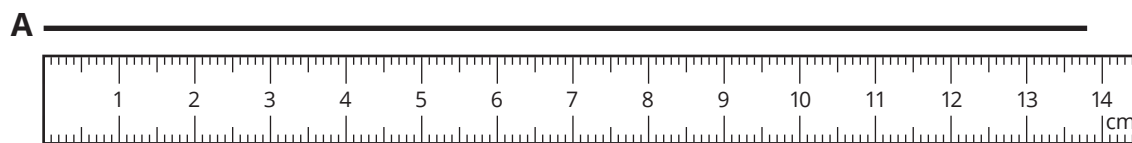
2 Write down the value of A, B and C.

2,7	2,8	2,9	**A**	**B**	3,2					**C**	3,7	3,8	3,9		

A _____   **B** _____   **C** _____

3 Decide whether true or false. Explain your answer.

	True / False	Explain why you say yes or no.
a 0,6 is bigger than 0,06		
b 0,07 is smaller than 0,7		
c 4,5 < 4,52		
d $\frac{10}{10}$ > 0,9		
e $\frac{8}{10}$ = 0,8		

4 How long is Line A? _____

A ━━━━━━━━━━━━━━━━━━━━●━━━━━━━━━━━━━━━━━━

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
cm

5 How many Hundreds, Tens, Ones, tenths and hundredths are there in 349,25?

There are ____ Hundreds, ____ Tens, ____ Ones, ____ tenths and ____ hundredths in 349,25.

6 Calculate:

a 0,71 + 0,29 = □

T	O	,	t	h

b 32 – 23,47 = □
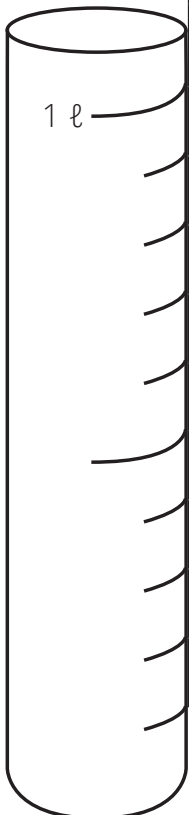
T	O	,	t	h

Lesson 39: Millilitres and litres
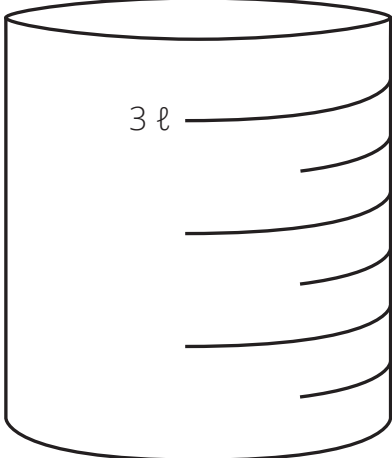
Mental maths

		Answer			Answer
1	3,4 + 3,5 =		**6**	4,2 + 3,8=	
2	2,3 + 6,4 =		**7**	12,1 + 17,9 =	
3	4,1 + 6 =		**8**	9,19 + 11,32 =	
4	3,5 + 2,7 =		**9**	9,03 + 7, 07 =	
5	11 + 6,3 =		**10**	42,74 + 1,2 =	
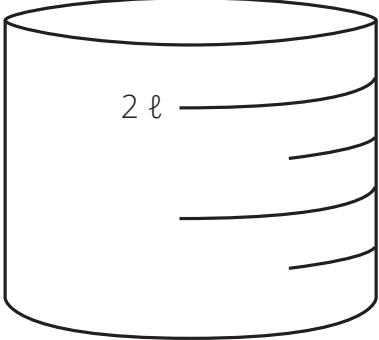
Activity 1

Container A	Millilitres	Litres (written as a fraction)	Litres (written as a decimal)
1 ℓ			
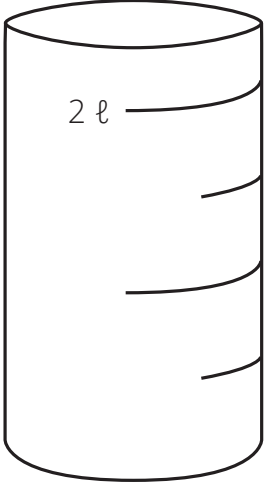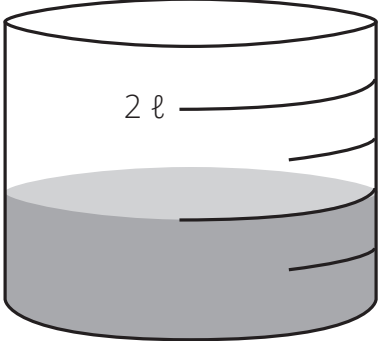
Container B

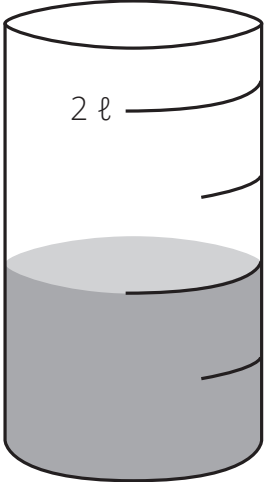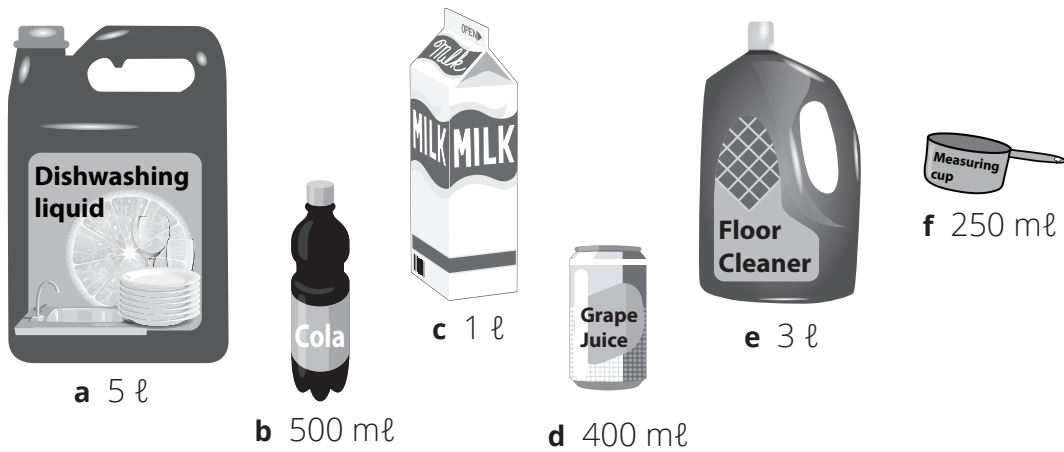| Litres (written as a fraction)	Millilitres

3 ℓ

2 ℓ

2 ℓ

C

D

2 ℓ

2 ℓ

C

D

Activity 2

Work with a partner.

1 On the table rite the capacity of each containers in millilitres (mℓ) and then in litres (ℓ).

Dishwashing liquid

Cola

MILK MILK

Grape Juice

Floor Cleaner

Measuring cup

f 250 mℓ

a 5 ℓ

b 500 mℓ

c 1 ℓ

d 400 mℓ

e 3 ℓ

| Container	Capacity	
	In millilitres (mℓ)	**In litres (ℓ)**
a Dishwashing liquid		5 ℓ
b Cola	500 mℓ	
c Milk		1 ℓ
d Grape juice	400 mℓ	
e Floor cleaner		3 ℓ
f Measuring cup	250 mℓ	

2 Write the containers in order from the one with the largest capacity to the one with the smallest capacity.

Write the letter of each container only: _____

Activity 3

Work with your partner.

1. Look at the measuring jugs. Answer the questions.
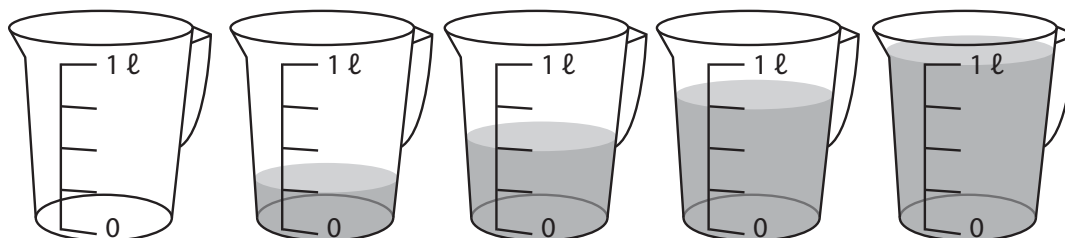
a What is the capacity of these identical jugs in litres? _____

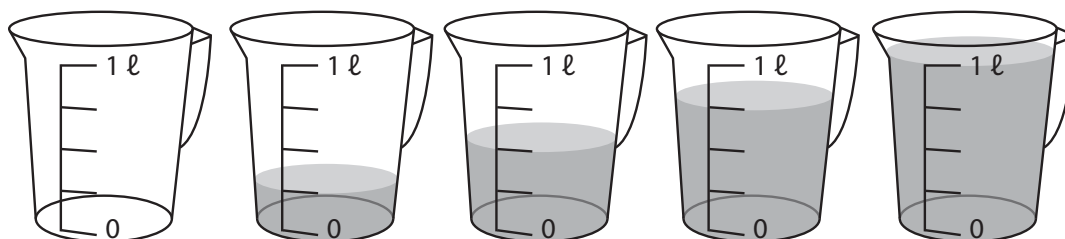**b** Write the capacity of the jugs in millilitres. _____

c We need to know what the interval is between marks on each jug.

How many equal parts are shown on the vertical line on each jug? _____

How do you work out the interval between the marks?
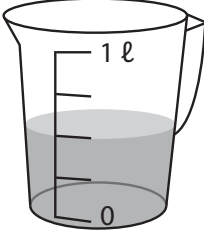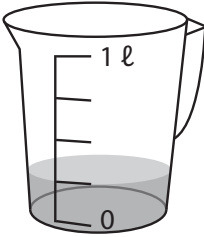
_____

What is the interval between marks? _____

2 Read and write the volume of liquid in each of these containers in millilitres.

_____ _____ _____ _____ _____

3 Write the volume of each of these containers in litres.
Explain how you got your answer.

	Volume in litres	**Explain how you get your answer**

HOMEWORK

Look at the jugs and then answer the questions.
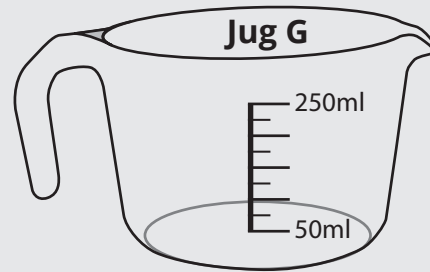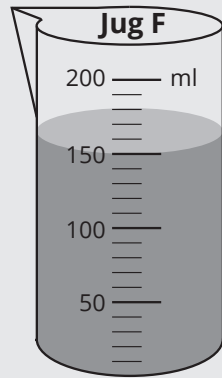
1 What is the capacity of Jug F? _____

2 What is the volume of the juice in Jug F? _____

3 What is the capacity of Jug G? _____

4 What is the volume of liquid in Jug G? _____

5 Will the juice in Jug F fit in Jug G? _____

Give a reason for your answer. Use the words capacity and volume in your answer.

_____

_____

6 Draw Jug G after the juice has been poured in from Jug F.
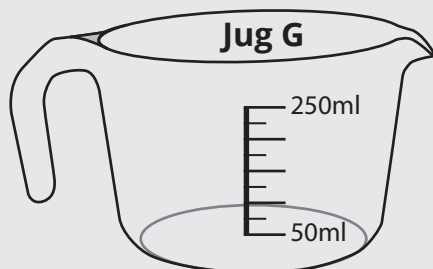
Lesson 40: Capacity and volume in everyday life (1)

Mental maths

		Answer			Answer
1	3,6 – 1,4 =		**6**	18,35 – 12,21 =	
2	19,9 – 9,2 =		**7**	5,2 – 0,7 =	
3	4,4 – 2,4 =		**8**	13 – 2,9 =	
4	7,3 – 2,4 =		**9**	20 – 13,7 =	
5	8,1 – 7,3 =		**10**	10,1 – 9,4 =	

Link to previous lesson

1 What is the capacity of the juice can? _____

2 What is the capacity of the cup? _____

3 Write the capacity of the cup in litres?

_____

Activity 1

Work with your partner

1   Write in millilitres.
    Example: 2 ℓ = 2 000 mℓ

    a   5 ℓ = _____ mℓ

    b   10 ℓ = _____mℓ

    c   1 ℓ = _____mℓ

    d $\frac{3}{4}$ ℓ = _____ mℓ

    e $\frac{1}{2}$ ℓ = _____ mℓ

2   Write in litres and millilitres.
    Example: 1 600 mℓ can be written as 1 ℓ and 600 ml.

    a   1 700 mℓ = _____ ℓ and _____ mℓ

    b   4 600 mℓ = _____ ℓ and _____ mℓ

    c   6 990 mℓ = _____ ℓ and _____ mℓ

    d   3 050 mℓ = _____ ℓ and _____ mℓ

3   How many litres in each of the following?
    Give your answer as a decimal.
    Example: 2 500 mℓ = 2,5 ℓ

    a   1 700 mℓ = _____ ℓ

    b   4 600 mℓ = _____ ℓ

    c   6 990 mℓ = _____ ℓ

    d   3 050 mℓ = _____ ℓ

    e   750 mℓ = _____ ℓ

4 How many litres in each of the following?
Give your answer as a fraction or a decimal fraction if necessary.
Example: 2 500 mℓ = 2,5 ℓ = $2\frac{1}{2}$ ℓ

   a 3 000 mℓ = _____ ℓ

   b 5 500 mℓ = _____ ℓ

   c 4 200 mℓ = _____ ℓ

   d 750 mℓ = _____ ℓ

5 Thembi sells milk. Her customers bring their own containers.
Thembi filled two containers with 2 ℓ each,
one container with 1,5 ℓ
and one container with 4 ℓ.
How many litres did Thembi sell?

   a Read the word problem carefully. Underline the numbers and the question.

     Thembi sells milk. Her customers bring their own containers.
     Thembi filled two containers with 2 ℓ each,
     one container with 1,5 ℓ
     and one container with 4 ℓ.
     How many litres did Thembi sell?

   b Write a number sentence for the word problem: _____

   c Do the calculation:

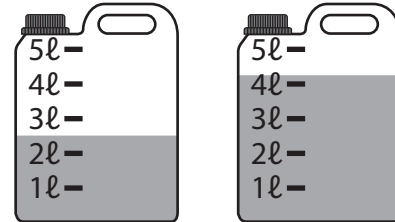   **d** Answer: Thembi sold _____ ℓ of milk.

   e Rewrite the answer in millilitres: _____ mℓ

   f Rewrite the answer in litre and millilitres: _____ ℓ and _____ mℓ

Activity 2

Do this Activity on your own.

1 A container holds 2,5 ℓ petrol.
Another container holds $4\frac{1}{4}$ ℓ petrol.
How much petrol is there altogether?

a Read the word problem carefully.

Underline the numbers and the question.

A container holds 2,5 ℓ petrol.
Another container holds $4\frac{1}{4}$ ℓ petrol.
How much petrol is there altogether?

b Write a number sentence for the word problem: _____

c Write both amounts of petrol in millilitres

2,5 ℓ = _____ mℓ

$4\frac{1}{4}$ ℓ = _____ mℓ

d Use the column method to find the total.

	Th	H	T	O
+				

e Give the answer in three ways:

In mℓ: _____ mℓ

In ℓ and mℓ: _____ ℓ and _____ mℓ

In ℓ only: _____ ℓ

2 Zami drank 1,5 ℓ water in the morning
and 2 ℓ and 600 mℓ water in the afternoon.
How much water did Zami drink during the day?

a Read the word problem carefully.
Underline the numbers and the question.

Zami drank 1,5 ℓ water in the morning
and 2 ℓ and 600 mℓ water in the afternoon.
How much water did Zami drink during the day?

b Convert 1,5 ℓ to mℓ:

1,5 ℓ = _____ mℓ

c Convert 2 ℓ and 600 mℓ to mℓ:

2 ℓ and 600 mℓ = _____ mℓ

d Write a number sentence for the word problem: _____

e Use the column method to find the answer:

	Th	H	T	O
+				

f Give the answer:
Zami drank _____ mℓ , or _____ ℓ , or _____ ℓ and _____ mℓ water.

3 Gogo uses 1 cup of milk to make scones.

If she doubles the recipe, how much milk will she need?

a Read the word problem carefully.
Underline the numbers and the question.

Gogo uses 1 cup of milk to make scones.
If she doubles the recipe, how much milk will she need?

b Write a number sentence for the word problem: _____

c Do the calculation: _____

d How many cups of milk will Gogo need? Gogo will need _____ cups of milk.

e 1 cup of milk has a capacity of 250 mℓ

How many millilitres of milk will Gogo need? Gogo will need _____ mℓ milk

How many litres of milk will Gogo need? Gogo will need _____ ℓ milk or
0, _____ ℓ milk

HOMEWORK

1 How many litres in each of the following?
Give your answer as a decimal fraction if necessary.
Example: 1 500 mℓ = 1,5 ℓ

   a 1 000 mℓ = _____ ℓ   **b** 2 500 mℓ = _____ ℓ

   c 3 600 mℓ = _____ ℓ   **d** 17 500 mℓ = _____ ℓ

2 Write in millilitres.
Example: 2 ℓ = 2 000 mℓ

   a 8 ℓ = _____ mℓ   **b** 20 ℓ = _____ mℓ

   c 4,5 ℓ = _____ mℓ   **d** $1\frac{1}{4}$ ℓ = 1 ℓ .... mℓ = ... mℓ

Lesson 41: Capacity and volume in everyday life (2)

Mental maths

		Answer			Answer
1	3,9 – 2,2 =		**6**	16,7 – 9,2 =	
2	7,42 – 4,32 =		**7**	3 – 2,2 =	
3	6,19 – 3,17 =		**8**	20 – 14,3 =	
4	5,7 – 1,8 =		**9**	4,31 – 0,28 =	
5	2,2 – 0,9 =		**10**	8,21 – 5,36 =	

Link to previous lesson

Work with your partner to find the answer.

A tap at the school was leaking.

Teacher put a 2 ℓ bucket under the tap to catch the water.

The tap leaked half a bucket of water a day.

How much water was leaked altogether by the tap from Monday to Friday?

What is the capacity of the bucket? _____

How many litres in half a bucket of water? _____

How many days from Monday to Friday? _____ days

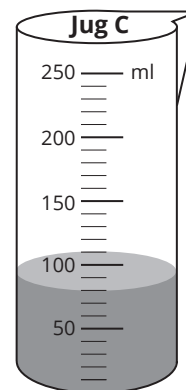Write a number sentence to show the problem: _____

How many buckets of water were leaked from Monday to Friday?

_____ bucketsful

Activity 1

Work with your partner.

1 Container H has a capacity of 200 mℓ.
Juice is poured into it. The volume of the juice is half of
the capacity.

Container H

Jug C
250 ── ml
200
150
100
50

a Which container has the more juice, Container H or
Jug C? How much more?

The volume of juice in Container H = _____ mℓ

The volume of juice in Jug C = _____ mℓ

Which container has more juice? _____

Calculate the difference in the volume of juice in the two containers:

_____ mℓ – _____ mℓ = _____ mℓ

How much more juice is in the bigger container? _____ mℓ

b How much more juice can be poured into Jug C?

_____ mℓ – 80 mℓ = _____ mℓ.

So _____ mℓ more juice can be poured into Jug C.

2 The capacity of the fuel tank of a taxi is 75 ℓ.
The fuel tank is filled to capacity in the morning.

a. How much fuel was used on Monday if there was 18 ℓ left in the tank in the evening?

Write a number sentence to describe the problem: _____

Use the column method to work out the answer:

	T	O
−		

Give the answer: _____ ℓ of fuel was used on Monday.

b. On Monday evening the taxi driver bought 25 ℓ of fuel at the garage.
How much fuel is now in the tank?

Write a number sentence to describe the problem: _____

Use the column method to work out the answer:

	T	O
+		

Give the answer: _____ ℓ of fuel is now in the tank.

Activity 2

Work with your partner to answer these questions.

1 Lucky poured 640 mℓ water from a jug holding a volume of 1,5 ℓ of water. How much water was left in the jug?

   a Read the word problem carefully. Underline the numbers and the question.

   Lucky poured 640 mℓ water from a jug which had a volume of 1,5 ℓ.

   How much water was left in the jug?

   b Write a number sentence for the word problem. You need to have the same units when you calculate.

   1,5 ℓ = _____ mℓ

   The number sentence is _____

	Th	H	T	O
−				

   c Give the answer.

   _____mℓ was left in the jug.

2 One bottle contains 750 mℓ oil.
   Mrs Tau used some of the oil.
   There was then 515 mℓ of oil left in the bottle.
   How much oil did she use?

   a Read the word problem carefully. Underline the numbers and the question.

   One bottle contains 750 mℓ oil.

   Mrs Tau used some of the oil.

   There was 515 mℓ of oil left in the bottle after she used some.

   How much oil did she use?

b Write a number sentence for the word problem

_____

	H	**T**	**O**
−			

c. Find the answer.

Mrs Tau used _____ mℓ oil.

3 Evelyn took 1 570 mℓ of milk from a container holding of $3\frac{1}{2}$ ℓ of milk. How much milk was left in the container?

a Read the word problem carefully. Underline the numbers and the question.

Evelyn took 1 570 mℓ of milk from a container holding of $3\frac{1}{2}$ ℓ of milk. How much milk was left in the container?

b Write a number sentence for the word problem. You need to have the same units when you calculate.

$3\frac{1}{2}$ ℓ = _____ mℓ

The number sentence is _____

c Find the answer.

	Th	**H**	**T**	**O**
−				

_____ mℓ of milk was left in the container.

_____ ℓ and _____ mℓ of milk was left in the container.

_____ ℓ of milk was left in the container.

Activity 2

Work on this Activity on your own.

1 There was 6 349 ℓ water in the tank.
David used 2 006 ℓ to water the vegetable garden and
another 1 500 mℓ to water a small pot plant.
How much water did David use?

a Read the word problem carefully. Underline the
numbers and the question.

There was 6 349 ℓ water in the tank.

David used 2 006 ℓ to water the vegetable garden
and another 1 500 mℓ to water a small pot plant.

How much water did David use?

b Write a number sentence for the word problem. You need to have the
same units when you calculate.

2 006 ℓ will become a very large number if we convert it to mℓ.

So, it is better to convert 1 500 mℓ to ℓ: 1 500 mℓ = _____ ℓ

The number sentence is _____

c Find the answer.

David used _____ ℓ of water to do the watering.

d How much water is left in the water tank after David did the watering?

Write a number sentence: _____

Use the column method to find the answer.

Th	H	T	O	,	t
-					

There is _____ ℓ left in the tank.

e. Give your answer in litres and millilitres: _____ ℓ and _____ mℓ

2 The farmer used 13,2 ℓ fertiliser and her neighbour used 15 100 mℓ fertiliser. How much more fertiliser did the one farmer use than the other farmer? Give your answer in litres.

a Read the word problem carefully. Underline the numbers and the question.

The farmer used 13,2 ℓ fertiliser and her neighbour used 15 100 mℓ fertiliser.

How much more fertiliser did the one farmer use than the other farmer?

Give your answer in litres.

b Write a number sentence for the word problem. You must have the same units when you calculate.

We have to answer in litres, so it is better to convert 15 100 mℓ to ℓ:

15 100 mℓ = _____ ℓ

The number sentence is _____

c Find the answer.

		T	O	,	t
−					

d Give the answer in litres.

The one farmer used _____ litres more fertiliser than the other farmer.

HOMEWORK

1 A taxi driver started a day with a full tank of 65 ℓ of fuel.
   At the end of the day there was 15 ℓ of fuel left in the tank.
   How many litres of fuel did the taxi drive use?

   The taxi driver used _____ ℓ of fuel.

2 Challenge!
   If the taxi driver used the fuel left over to drive 500 km, how far would he
   be able to drive using 1 ℓ fuel?

   The taxi driver drove 500 km using _____ ℓ of fuel.
   He could travel _____ km using 1 ℓ of fuel.

Lesson 42: Consolidation

Work on your own

1 Look at the containers and their capacities as you answer the questions.

a What is the difference between the capacity of the yoghurt container and the cup?

_____

b How many containers of milk will be needed to fill a 2ℓ container?

2 ℓ = _____ mℓ

_____

Answer: _____ milk containers will be needed.

c How many yoghurt containers will be needed to fill a half a litre?
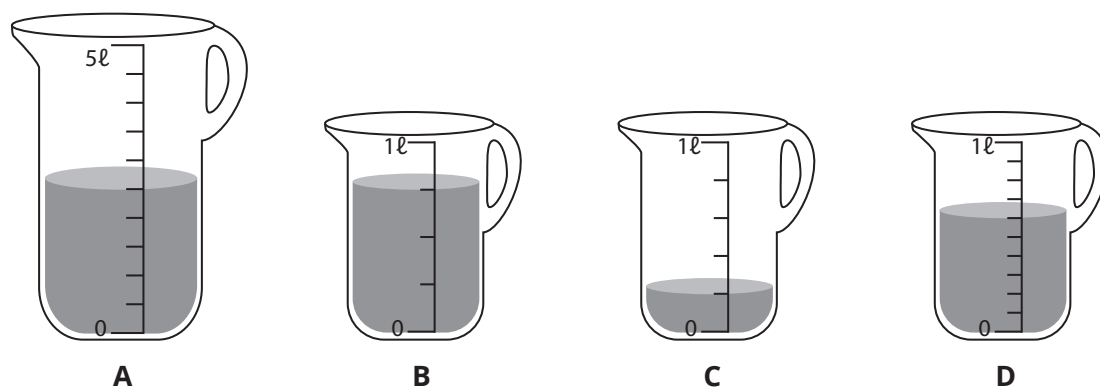
Half a litre = _____ mℓ

_____

Answer: _____ yoghurt containers will be needed.

d How many cups will be needed to fill a half a litre?

Half a litre = _____ mℓ

_____

Answer: _____ cups will be needed.

2 Look at the containers and their volumes as you answer the questions.

A **B** **C** **D**

a What does each little division/calibration/mark on each jug stand for?

Jug A _____

Jug B _____

Jug C _____

Jug D _____

b What is the volume of the liquid in each jug?

Jug A _____

Jug B _____

Jug C _____

Jug D _____

c How much more liquid should be added to make each jug full to capacity?

Jug A _____

Jug B _____

Jug C _____

Jug D _____

d How much liquid is there in total in the 4 jugs?

_____

e What is the difference between the amount of liquid in the jug with the highest volume and the jug with the lowest volume?

_____

3 Sam made mixed fruit juice.

He mixed $\frac{3}{4}$ ℓ grape juice,

1,2 ℓ orange juice,

500 mℓ pawpaw juice and

1 ℓ orange juice.

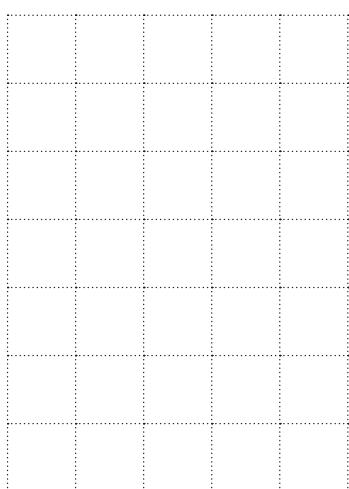**a** Convert the volumes so that they are all in the same unit.

$\frac{3}{4}$ ℓ = _____

1,2 ℓ = _____

500 mℓ = _____

1 ℓ = _____

b Write a number sentence for this problem.

_____

c How much fruit juice is this altogether?

d. Write down the answer: There is _____ of juice.

e. How much water must Sam add to make 5 ℓ mixed fruit juice?

Write a number sentence for this problem.

_____

Do the calculation:

Write down the answer: Sam must add _____ of water.

RESOURCES

Lesson 10: Area

Nomsa's vegetable garden

Nomsa has planted a bed of spinach, a bed of beans and a bed of carrots.