

MATHEMATICS
Grade 4
English
Learner
Activity
Book

2020 TERM 2



Introduction

This Learner Activity Book has numbered daily activities for classwork and homework for all the lessons in Term 2. 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 maths activities, they will cover the whole curriculum. Hopefully these activities will be a fun way to help them acquire this maths knowledge.



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Lesson 1: Properties of 2-D shapes (square, rectangle, circle and triangle)

Mental maths

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

Activity 2

Draw a quadrilateral here:

Lesson 1: Properties of 2-D shapes (square, rectangle, circle and triangle)

- 1 Cut out Triangle A and Triangle B.

- 2 Take Triangle A.
 - a. Draw a line on the triangle to show how you could make **two triangles** from your one big triangle.
 - b. Cut along the line to make the two triangles.

Glue your two triangles here:

- 3 Take Triangle B.
 - a. Draw a line on the triangle to show how you could make **one triangle and one quadrilateral** from your one big triangle.
 - b. Cut along the line to make one triangle and one quadrilateral.

Glue your triangle and quadrilateral here:

Activity 3

You will need a pair of scissors, glue, pencil and ruler for this activity

1. Cut out quadrilateral A, quadrilateral B and quadrilateral C.
2. Take quadrilateral A.
 - a. Draw a line on the quadrilateral to show how you could make **two triangles** from one quadrilateral.
 - b. Cut along the line you have drawn to make two triangles.

Glue your two triangles here.

3. Take quadrilateral B.
 - a. Draw a line on the quadrilateral to show how you could make **two quadrilaterals** from one quadrilateral.
 - b. Cut along the line you have drawn.

Glue your two quadrilaterals here.

4. Take quadrilateral C.
- Draw a line on the quadrilateral to show how you could make **a triangle and a quadrilateral** from one quadrilateral.
 - Cut along the line you have drawn.

Glue your triangle and quadrilateral here

HOMEWORK

1. I am a closed shape with four straight sides. All my sides are the same length.

What am I? _____

2. I am a closed shape with a curved side.

What am I? _____

3. I am a closed shape with three straight sides.

What am I? _____

4. I am a closed shape with four straight sides.
My opposite sides are the same length.

What am I? _____

Lesson 2: Polygons and circles

Mental maths

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

Activity 2

You will need these names to answer the following questions:

Circle

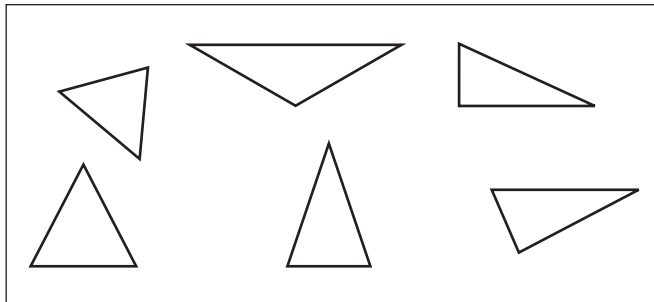
Triangle

Hexagon

Quadrilateral

Pentagon

1.



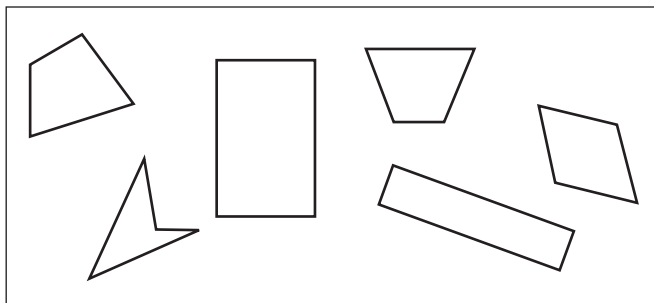
Number of sides _____

Name of the shape

Are the sides straight or curved? _____

Is it a polygon? _____

2.



Number of sides _____

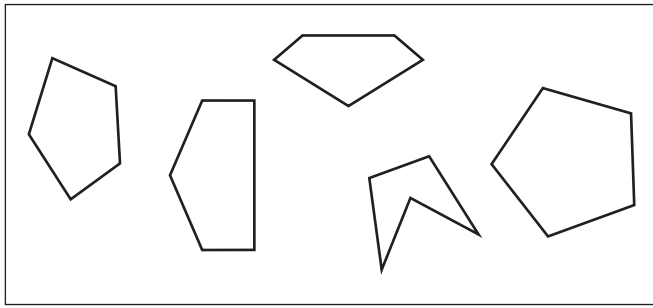
Name of the shape

Are the sides straight or curved? _____

Is it a polygon? _____

Lesson 2: Polygons and circles

3.



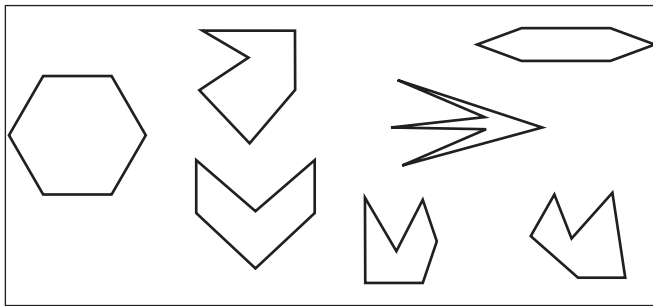
Number of sides _____

Name of the shape

Are the sides straight or curved? _____

Is it a polygon? _____

4.



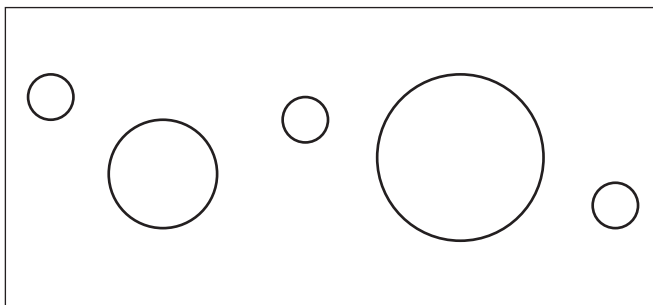
Number of sides _____

Name of the shape

Are the sides straight or curved? _____

Is it a polygon? _____

5.



Number of sides _____

Name of the shape

Are the sides straight or curved? _____

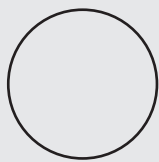
Is it a polygon? _____

HOMEWORK

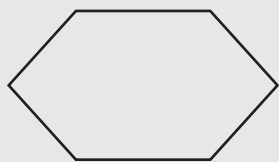
Draw a line to match the 2-D shape with its name.



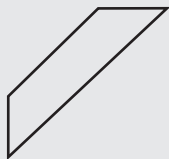
hexagon



square



rectangle



pentagon



circle



quadrilateral

Lesson 3: Right angles

Mental maths

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

Activity 2

Work with your partner.

You must stay inside your classroom.

Use the right angle measure you made by folding a piece of paper twice.

Check your partner's measurements.

- 1 Write down where you found six corners that are right angles.

- 2 Write down where you found a corner that is not a right angle.

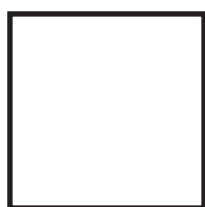
Activity 3

Work with your partner.

Use the right angle measure you made by folding a piece of paper twice.

1 Look at this polygon.

Read the information about the polygon and then answer the questions.



Adjacent sides are the same length.

Opposite sides are the same length.

a. Use your right-angle measure. Measure all the corners in the polygon.

b. Draw a circle around the correct number to make the statement true.

In a square, there are 0 / 2 / 4 corners that are right angles.

c. What is the name of this polygon? _____

2 Look at the polygon.

Read the information about the polygon and then answer the questions.



Opposite sides are the same length.

a. Use your right-angle measure. Measure all the corners in the polygon.

b. Draw a circle around the correct number to make the statement true.

In a square, there are 0 / 2 / 4 corners that are right angles.

c. What is the name of this polygon? _____

HOMEWORK

Use the right angle measure you made by folding a piece of paper twice.

- 1 Write down where you found six corners in your home that are right angles.

- 2 Bring one example of something that has right angles to class, if possible, to show to your friends.


Lesson 4: Right-angled triangles

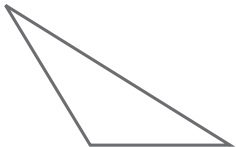
Mental maths


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

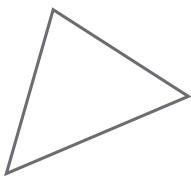
Activity 2

Use your right-angle measure to check which angles are right angles.

- 1.**  Is this triangle a right-angled triangle? _____
If it is a right-angled triangle, colour it in and mark the right-angle with a small square.

- 2.**  Is this triangle a right-angled triangle? _____
If it is a right-angled triangle, colour it in and mark the right-angle with a small square.

- 3.**  Is this triangle a right-angled triangle? _____
If it is a right-angled triangle, colour it in and mark the right-angle with a small square.

- 4.**  Is this triangle a right-angled triangle? _____
If it is a right-angled triangle, colour it in and mark the right-angle with a small square.

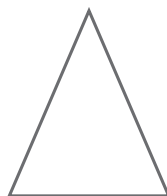
5.



Is this triangle a right-angled triangle? _____

If it is a right-angled triangle, colour it in and mark the right-angle with a small square.

6.



Is this triangle a right-angled triangle? (No)

If it is a right-angled triangle, colour it in and mark the right-angle with a small square.

Activity 3

Use your right-angle measure to check which angles are right angles.

1. Use the two identical right-angled triangles marked with an S.

You made them when you cut the square in half along the diagonal.

Make other shapes with these right-angled triangles:

Draw a picture here to show the new shapes.

2. Use the two identical right-angled triangles marked with an R.

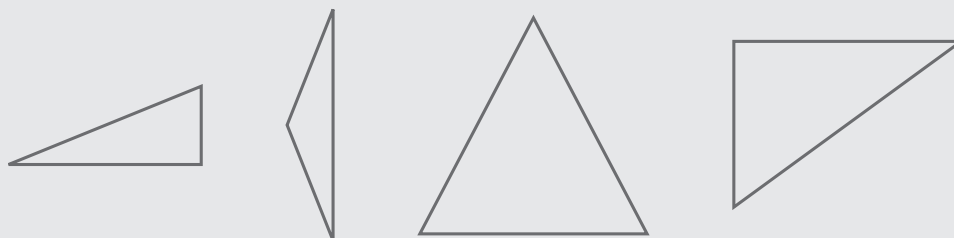
You made them when you cut the rectangle in half along the diagonal.

Make other shapes with these right-angled triangles.

Draw pictures here to show how you made the new shapes.

HOMEWORK

- 1 Draw a circle around each right-angled triangle.



- 2 Draw a small square in each right-angled triangle to show where right angle is.



Lesson 5: Squares, rectangles and right-angled triangles

Mental maths

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

Activity 1

Name of the shape	Picture	Number of sides	Length of sides	Number of right angles
Square		4		4
Rectangle				
Right-angled triangle				

Activity 2

1. Find a square, rectangle and right-angled triangle in your LAB and cut them out.

2. Study your shapes and answer the questions:

a. How many sides in a rectangle? _____

b. How many sides in a right-angled triangle? _____

Write the number of sides in a rectangle and in a right-angled triangle on the table in Activity 1.

3. Fold your shapes to find out which sides are equal in length.

a. In a square, which sides are equal lengths? _____

b. In a rectangle, which sides are equal lengths? _____

c. In a right-angled triangle, which sides are equal lengths? _____

4. Use your right-angle measure and the polygons you have cut out.

a. How many right angles in a square? _____

b. How many right angles in a rectangle? _____

c. How many right angles in a right-angled triangle? _____

Write the number of right angles of all three shapes on the table in Activity 1.

5. Use your right-angle measure and the polygons you have cut out.

a. Draw a picture of the square in the correct space on the table in Activity 1.

b. Use a ruler to measure the length of the sides of the square and write the length in the correct space on the table.

c. Fill in the missing information for the rectangle and the right-angled triangle.

HOMEWORK

Draw a line to match the name of the polygon with the description.

square	Closed shape with one right angle and three straight sides
rectangle	Closed shape with four right angles and all sides equal in length
right-angled triangle	Closed shape with four right angles and two pairs of sides equal in length

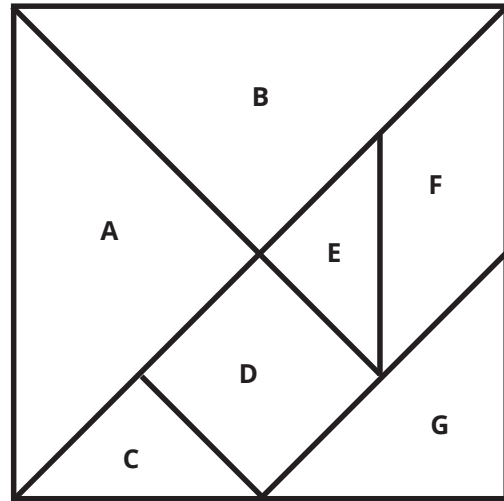
Lesson 6: Consolidation

A *tangram* is a puzzle made up of seven shapes that can be arranged to form many different shapes.

A tangram is made up of triangles, a square, and a quadrilateral.

Tangrams were first used in China more than 200 years ago.

A tangram looks like this:



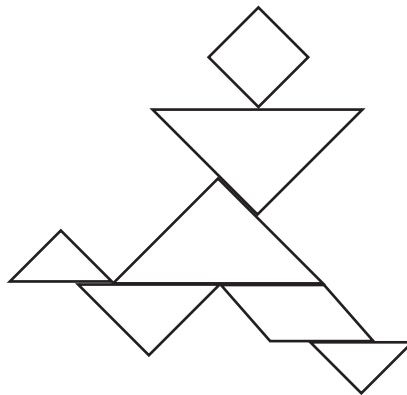
1. Which tangram pieces are right-angled triangles? _____
2. What shape is D? _____
3. What shape is F? _____
4. Are there any rectangles in the tangram? _____
5. Cut out the tangram that is at the back of your LAB.

Have fun! Build a rectangle using some of the pieces of the tangram.

Draw a picture here of what you did.

Lesson 6: Consolidation

6. Now use your tangram to build this person. You need to use all seven pieces.



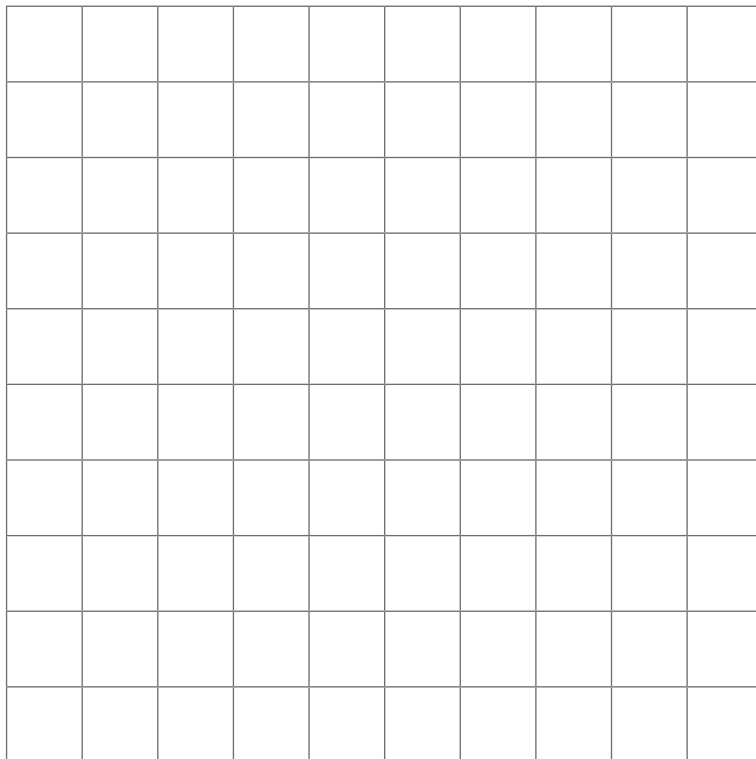
7. Build other figures if you have time.

Lesson 7: Draw 2-D shapes on grid paper

Mental maths

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

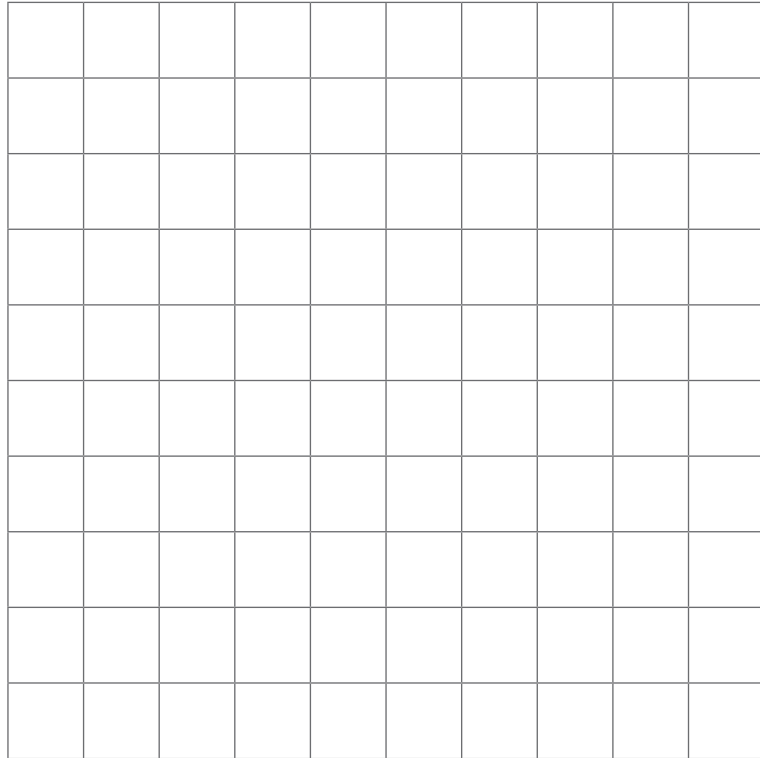
Activity 1



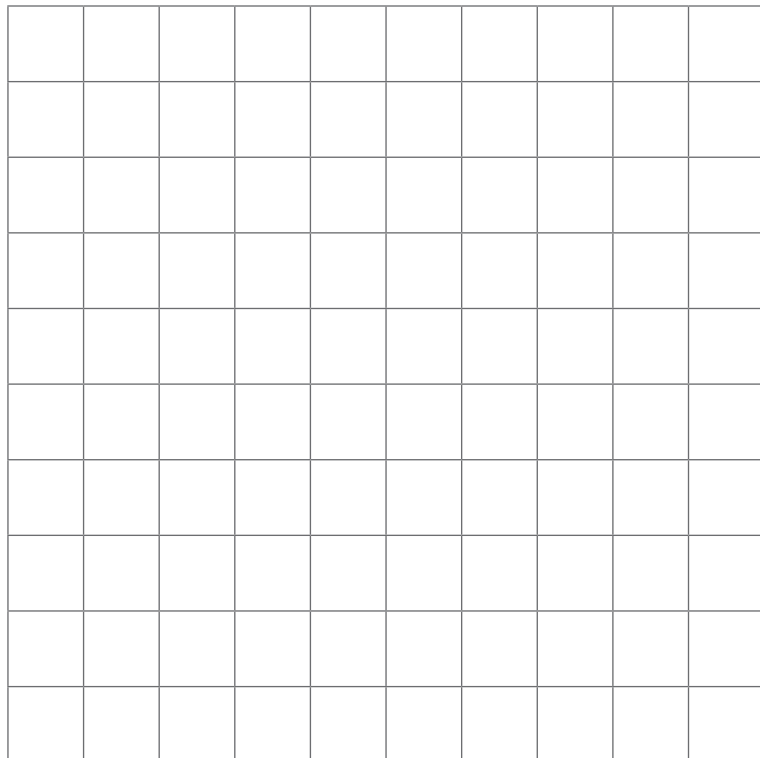
Activity 2

The sides of each square in the grid measure 1 centimetre.

- 1 a.** Draw a rectangle with sides of 6 centimetres and 4 centimetres.
- b.** Write the length of the sides on your rectangle.

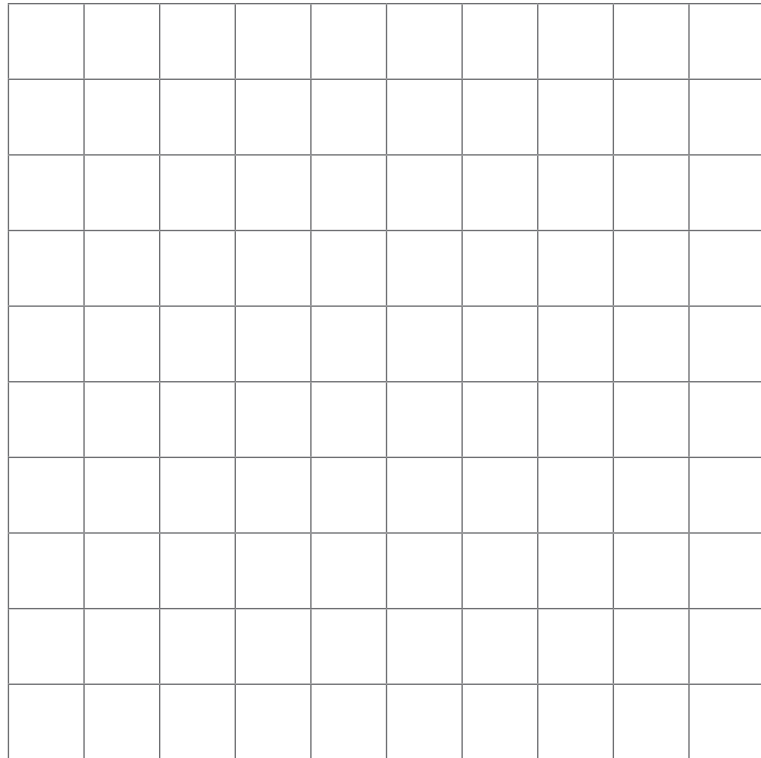


- 2 a.** Draw a square with one side of 5 centimetres.
- b.** Write the length of the sides on your square.



3 a. Draw a right-angled triangle with one shorter side that is 2 centimetres and the other shorter side that is 5 centimetres.

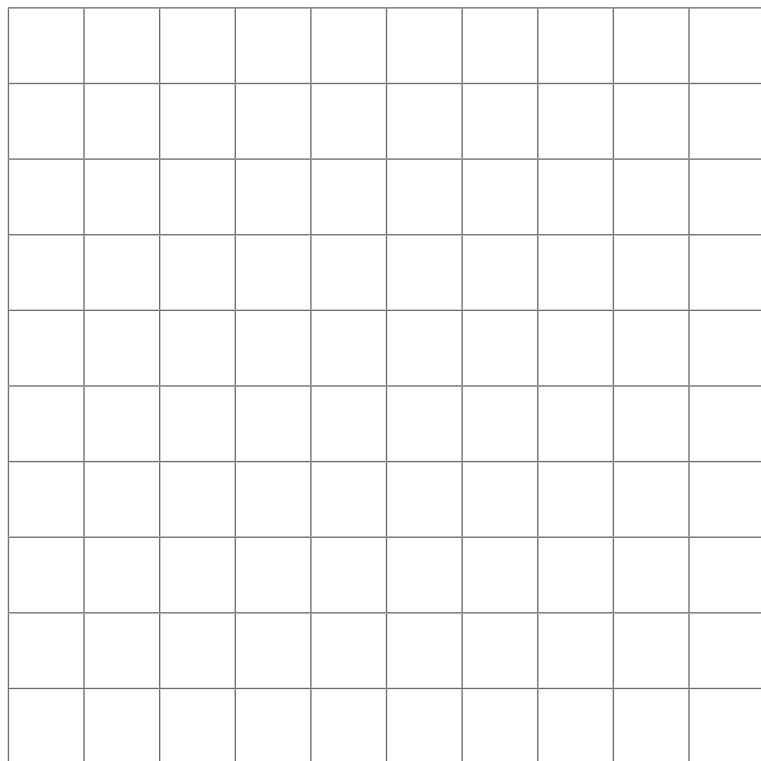
b. Draw a small box in the corner to show the right angle.



4 a. Draw a square. You can choose the length of the sides, but make sure it fits on the grid.

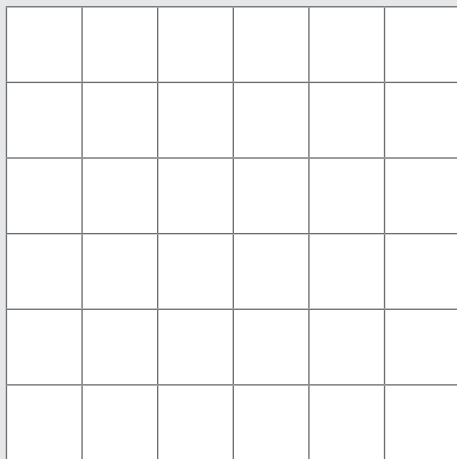
b. Label the length of each side.

c. Draw a small box in each corner to show the right angles.

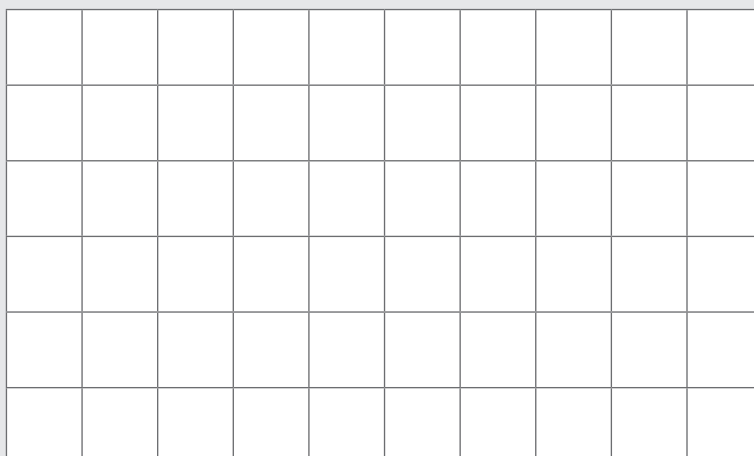


HOMEWORK

- 1** The sides of each square in the grid are 1 centimetre.
- a.** Draw a right angled triangle on the grid with the two short sides each 3 centimetres long.
 - b.** Draw a small box in the corner to show the corner that is a right angle.



- 2 a.** Draw a square on the grid with one side of 3 centimetres.
- b.** Draw another square on the grid with one side of 3 centimetres. The two squares must be joined.
- c.** Draw a small box in the corners that are right angles.
- d.** What is the name of the polygon you have drawn by joining two squares?



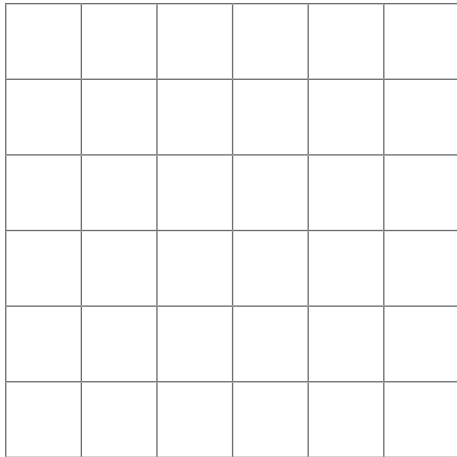
Lesson 8: Find squares, rectangles and right-angled triangles

Mental maths

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








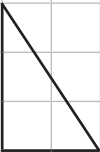


Link to previous lesson

Activity 1

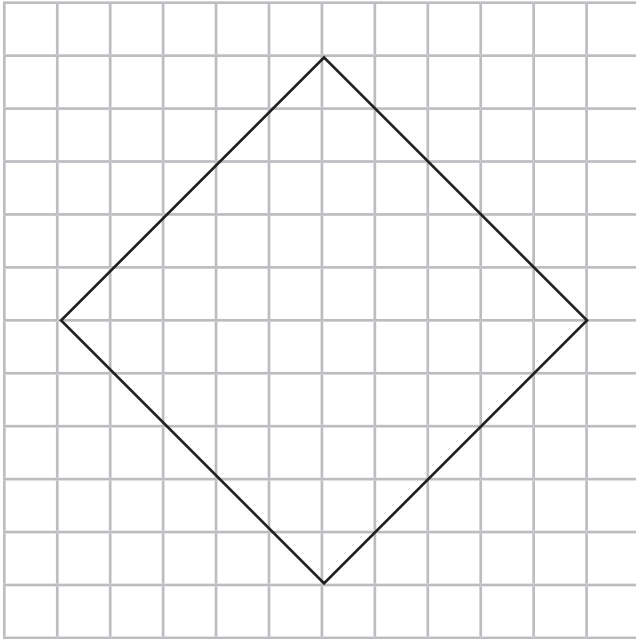


Draw a circle around the polygons in Column B that are the same size as the polygon in Column A.

To be the same size, the sides must be the same length and the angles must be equal.

Column A	Column B				
					
					

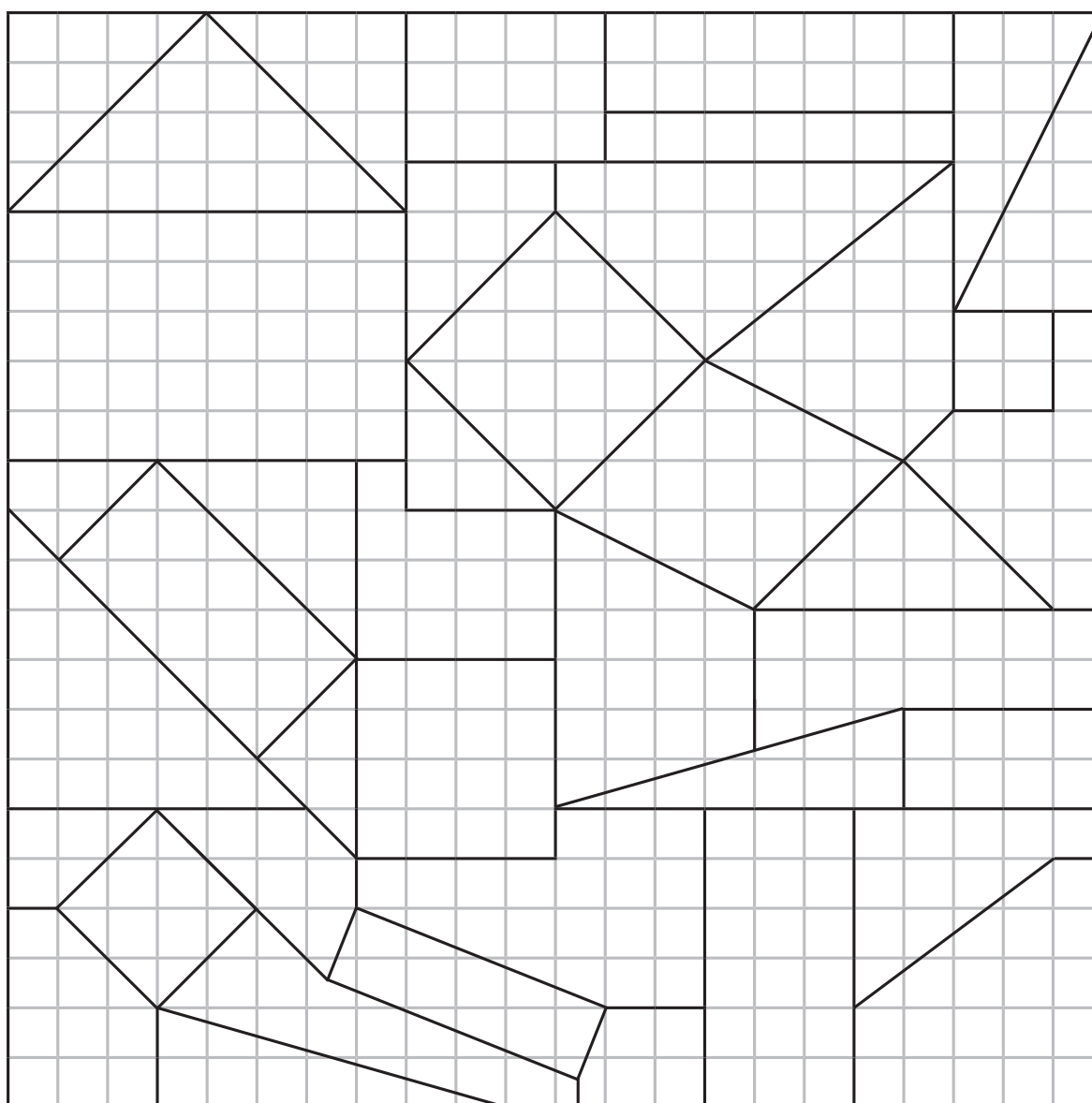
Activity 2



Activity 3

Search for shapes!

- Colour the squares red
- Colour the right-angled triangles blue
- Colour the rectangles green
- Colour the pentagons yellow.

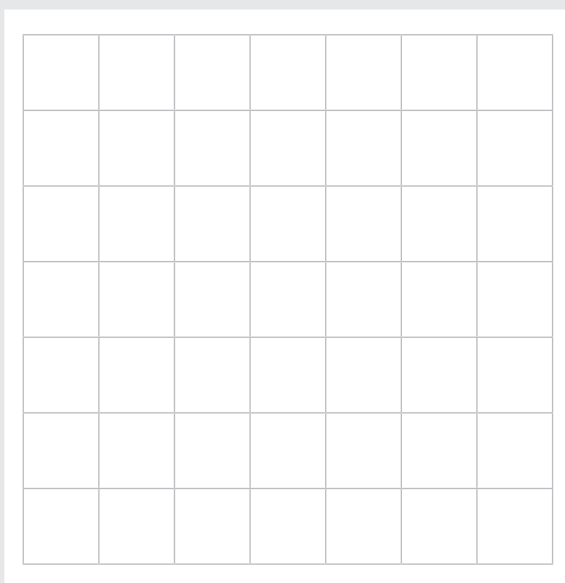
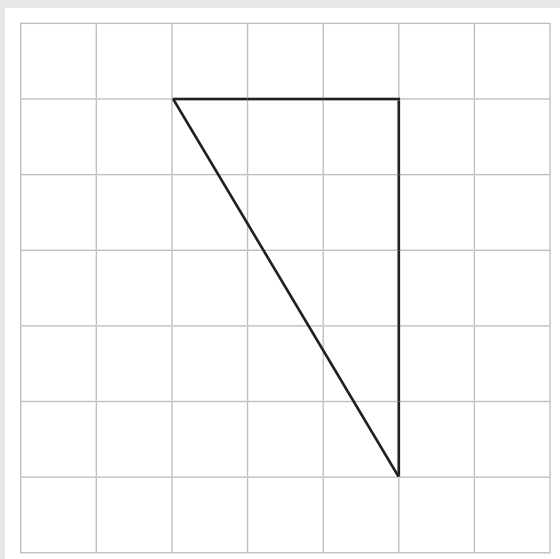


HOMEWORK

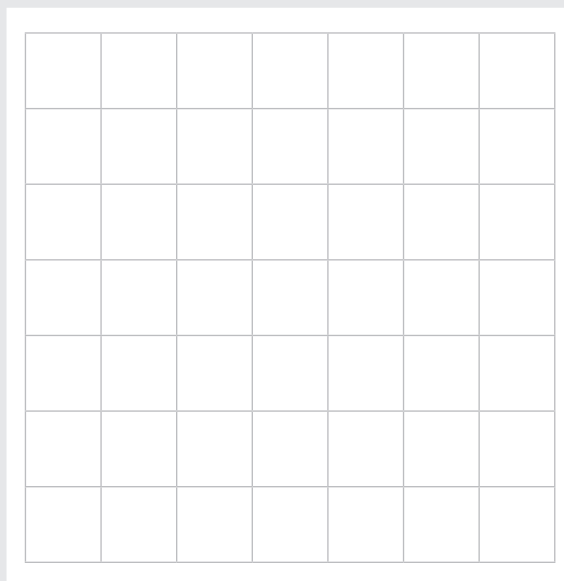
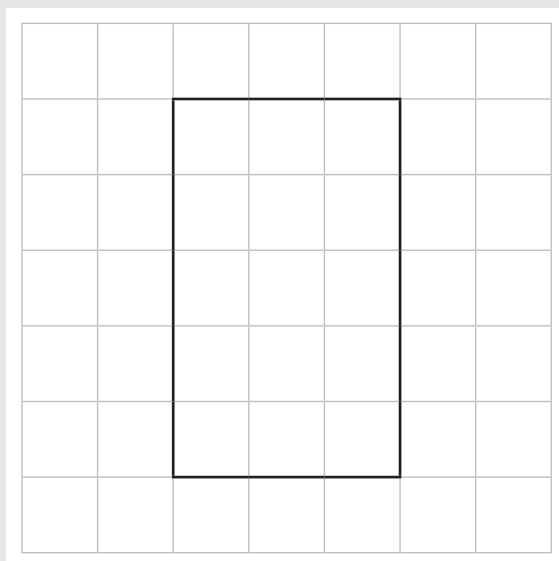
Draw each polygon on the grid paper.

The polygon must be the same shape and size, but in a different orientation (facing a different way).

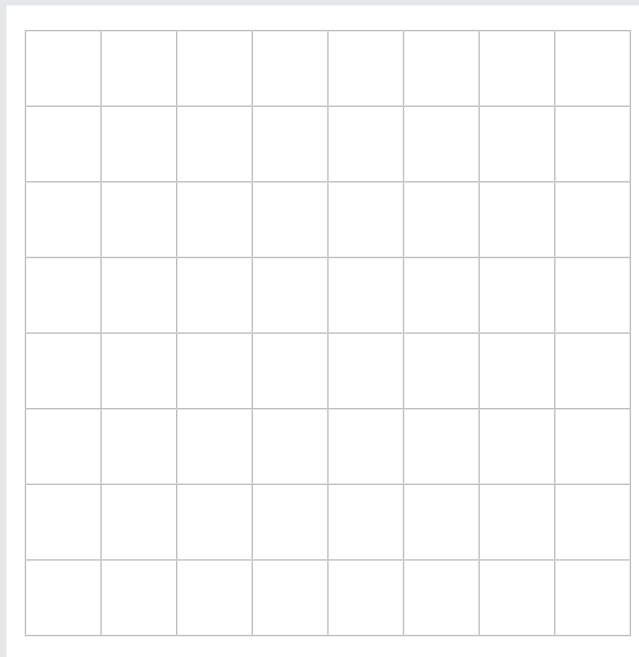
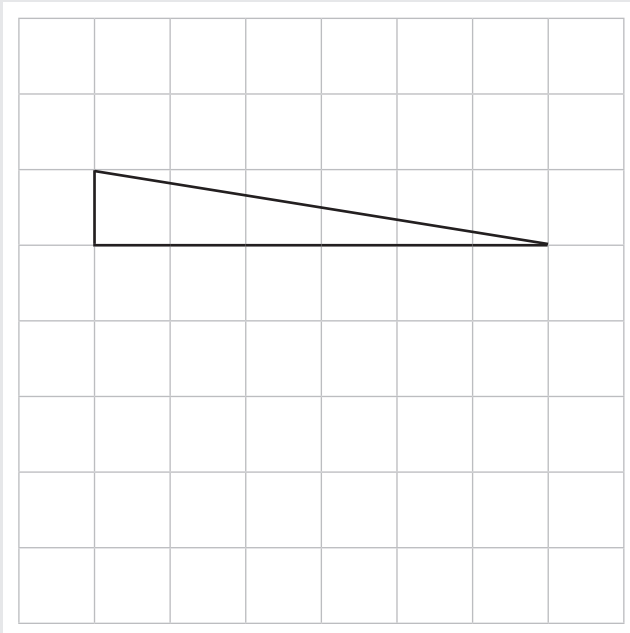
1



2



3



Lesson 9: Tessellations

Mental maths

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

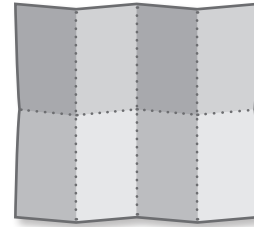
Activity 1



Activity 2

1. Use the sheet of paper your teacher gave you.
You and your partner should use one sheet of paper.

- a. Fold the paper like this:



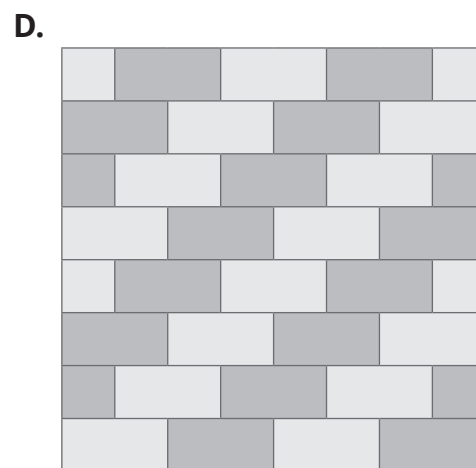
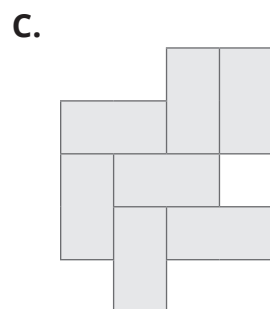
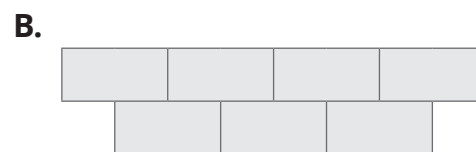
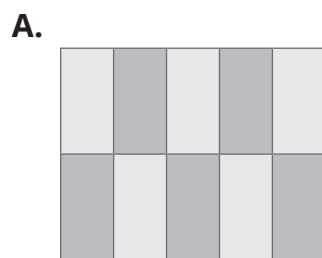
- b. Cut along the folds to get 16 tiles like this:



- c. Shade eight of the tiles one colour and eight of the tiles another colour.

- d. What shape is each tile? _____

- e. Use these tiles to make the following tessellations:



Lesson 9: Tessellations

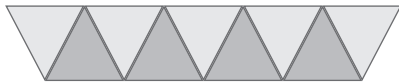
2. Use Tile 1 from the back of this LAB. There are six white tiles and six grey tiles. Cut out each tile.

a. What shape is each tile? _____

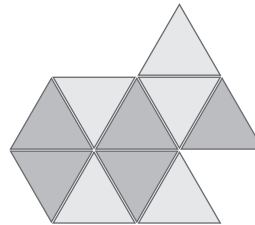
b. Use two tiles to make a quadrilateral. Draw the quadrilateral. Show the position of each tile.

c. Use these tiles to make the following tessellations:

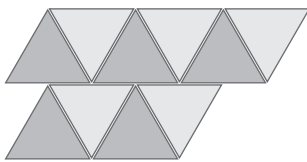
A.



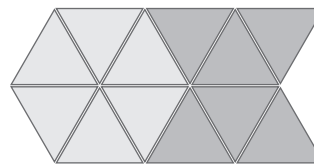
B.



C.



D.

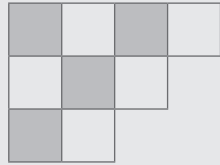


d. Explain why each pattern you have made is a tessellation.

HOMEWORK

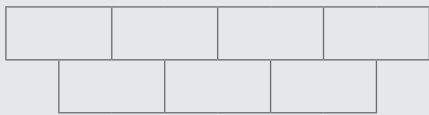
Name the shapes being used for each tessellation:

1



Name of the shape _____

2



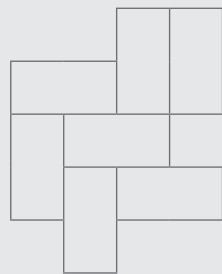
Name of the shape _____

3



Name of the shape _____

4



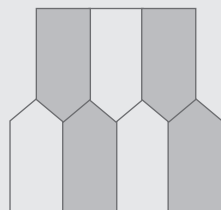
Name of the shape _____

5



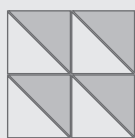
Name of the shape _____

6



Name of the shape _____

7



Name of the shape _____

Lesson 10: Locate objects on a grid

Mental maths





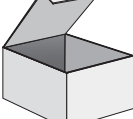
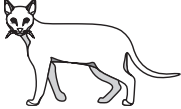




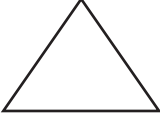
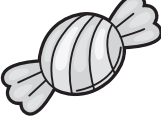

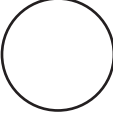



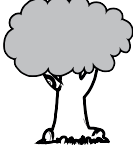







		Answer			Answer
1	$4 \times 4 =$		6	$3 \times 4 =$	
2	$8 \times 4 =$		7	$7 \times 4 =$	
3	$10 \times 4 =$		8	$2 \times 4 =$	
4	$6 \times 4 =$		9	$9 \times 4 =$	
5	$1 \times 4 =$		10	$5 \times 4 =$	

Activity 1

8					
7					
6					
5					
4					
3					
2					
1					
	A	B	C	D	E

Activity 2

Look at the grid and then answer the questions.

5					
4					
3					
2					
1					
	A	B	C	D	E

1. Name the objects found in the following cells:

a. B2 _____

b. C4 _____

c. D2 _____

d. B4 _____

e. A3 _____

f. C1 _____

2. In which cell will you find the following?

a. Spoon _____

b. Cat _____

c. Hand _____









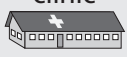

d. Cup _____

e. Chicken _____

f. Car _____

Activity 2

This is a map of Joe's house and the area where Joe lives.

4		 dam	 road	 farm	
3	 church		 school		 dam
2		 tree		 path	
1	 clinic				 Joe's house
	A	B	C	D	E

1. What is located in these cells?

- a. B2 _____
- b. B4 _____
- c. C4 _____

2. The road in cell C4 goes between two places.

What are these two places? _____

3. In which cells can you find the following places?

- a. The school _____
- b. The clinic _____
- c. The farm _____
- d. Joe's house _____
- e. The church _____

HOMEWORK

This grid shows where learners sit in the classroom.

6		Sofie					
5			Tumi			Jim	
4	Mzo				Tia		
3						Rob	
2				Siya			
1	Flo						Mary
	A	B	C	D	E	F	G

1. Who sits in these places?

a. F3 _____

b. B6 _____

c. G1 _____

2. Where do the following learners sit?

a. Jim _____

b. Tia _____

c. Mzo _____

Lesson 11: Draw and use a map

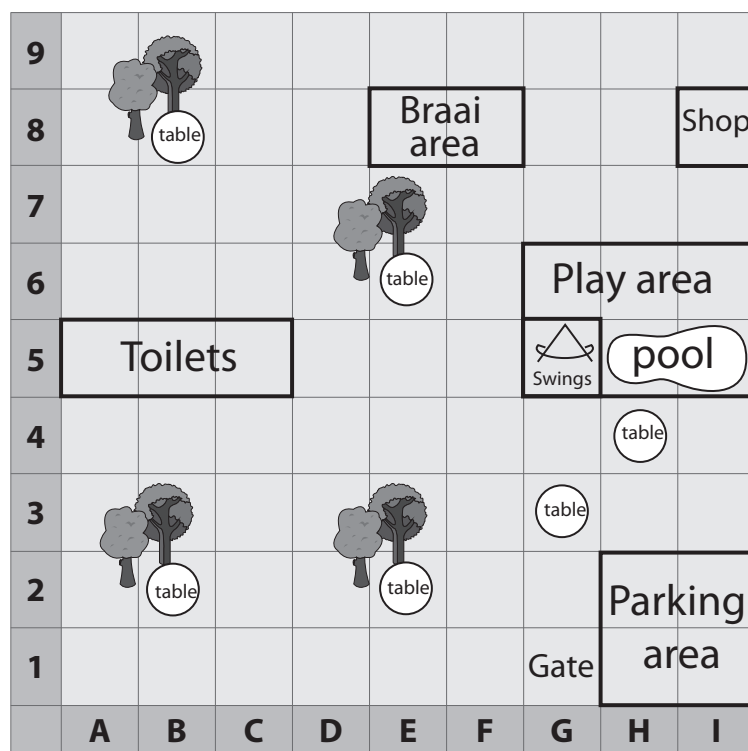
Mental maths

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

8					
7					
6					
5					
4					
3					
2					
1					
	A	B	C	D	E

Activity 1

This is a map of a park.



1. In which cells will you find the Parking Area?

2. In which cell is the gate into the park?

3. What is in E8 and F8?

4. In which cells are the toilets? _____

5. a. How many tables are there in the park?

b. Which tables do not have trees next to them?

c. Which table is closest to the braai area? _____

6. What is located in H5 and I5?

Activity 2

1. Draw a map of a school.
It could be your school, or it could be any other school.

Draw your map on the grid below.

Some things you could show on your map.
You don't have to show all of them:

- Office
- Classrooms
- Boys' toilets
- Girls' toilets
- School gate
- Parking area
- Play area
- Garden
- Tree

Map of a school

	A	B	C	D	E
5					
4					
3					
2					
1					

2. Use the map you have drawn. Write down four questions about the map:

a. What is located in cell _____ on the map?

b. What is located in cell _____ on the map?

c. Where is the _____ located?

d. Where is the _____ located?

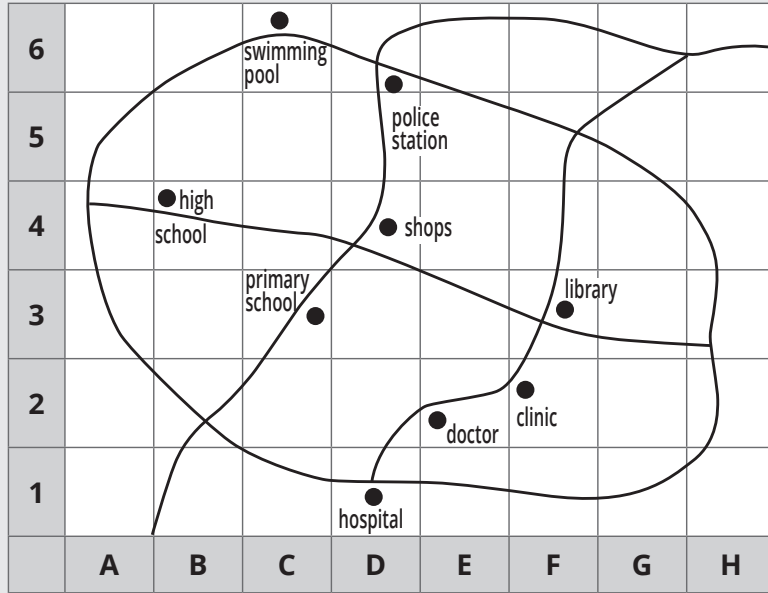
3. Swap with your partner.

You should answer your partner's questions and your partner should answer your questions.

4. Explain why you placed the school gate where you did.

HOMEWORK

Study the map of a town. Answer the questions.



- Which place is in cell C3?

- Where on the map is the high school?

- Which place is closest to the hospital?



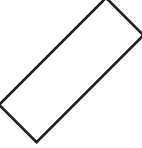

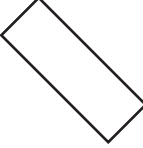
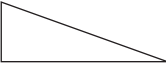

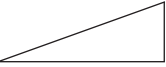

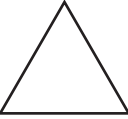
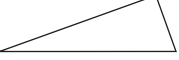
- Explain why it is a good idea for the doctor to be close to the hospital and the clinic.

Lesson 12: Consolidation

- 1 Draw a line to match the word with its description.

2-D Shape	Description
polygon	Polygon with four straight sides of the same length and four right angles
right-angled triangle	Polygon with six sides
square	Closed 2-D shape with straight sides
hexagon	Pattern formed when a shape is repeated and there are no gaps and no overlaps
pentagon	Polygon with three sides and one right angle
tessellation	Polygon with five sides

2. Draw a circle around the polygon in Column B that is **not** the same as the polygon in Column A.

Column A	Column B
	   
	    

Lesson 12: Consolidation

- 3.** Each side of the small squares in this grid is 1 centimetre.

Draw the following polygons on the grid:

- a.** A rectangle with sides of 4 centimetres and 3 centimetres.

Write the length of the sides on the rectangle.

- b.** A square with one side of 3 centimetres.

Write the length of the sides on your square.

- c.** A right-angled triangle with one side 3 centimetres long and the other side making the right angle equal to 5 centimetres.

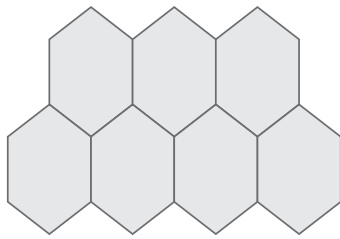
Draw a small box in the corner that is a right angle.







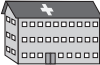



- 4 a** What shape was used to make the tessellation shown in this brick wall?



b. What shape was used to make this tessellation? _____



5. Look at the map showing a town.

6				library 		
5		shop 	Green Road			church 
4			police station 			
3					hospital 	
2	school 					
1		pool 		Blue Road	Thabo's house 	
	A	B	C	D	E	F

a. In which cell will you find:

The school _____

The police station _____

The hospital _____

b. What will you find in the following cells?

D6 _____

B5 _____

F5 _____

Lesson 12: Consolidation

- c. Thabo wants to walk from his house to the pool. Which road should he use?

Lesson 13: Halves, quarters and eighths

Mental maths

Read each fraction to your partner

1	$\frac{1}{2}$		6	$\frac{3}{4}$	
2	$\frac{1}{4}$		7	$\frac{6}{8}$	
3	$\frac{2}{2}$		8	$\frac{1}{8}$	
4	$\frac{3}{8}$		9	$\frac{2}{4}$	
5	$\frac{5}{8}$		10	$\frac{8}{8}$	

Link to previous lesson

Colour in two thirds of this shape.

--	--	--

Colour in three quarters or three fourths of this shape.

--	--	--	--

Colour in two fifths of this shape.

--	--	--	--	--

Colour in five eighths of this shape.

--	--	--	--	--	--	--	--

Activity 2

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

Shade in $\frac{1}{2}$ on your fraction wall.

Shade in $\frac{2}{4}$ on your fraction wall.

Shade in $\frac{4}{8}$ on your fraction wall.

Fill in the missing digits: $\frac{4}{8} = \frac{\square}{4} = \frac{\square}{2}$

Fill in the missing digits: $\frac{1}{4} = \frac{\square}{8}$

Use your fraction wall to help you fill in the missing digits

1 $\frac{1}{4} = \frac{\square}{8}$

2 $\frac{\square}{2} = \frac{4}{8}$

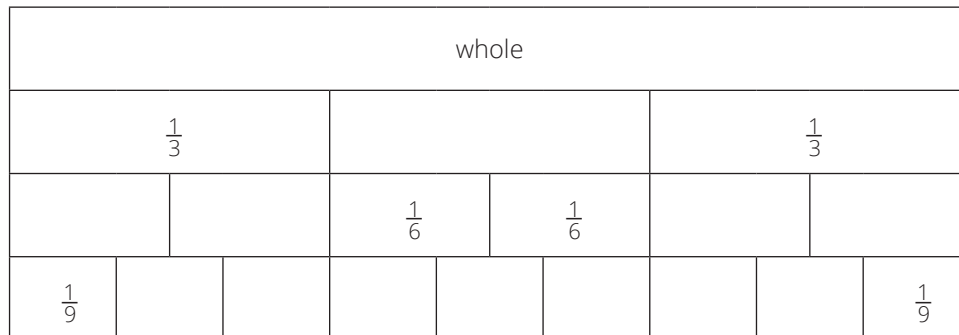
3 $\frac{\square}{8} = \frac{2}{4}$

4 $\frac{\square}{8} = \frac{1}{2}$

5 $\frac{3}{4} = \frac{\square}{8}$

Activity 3

1 Label all the missing fractions on this fraction wall.



2 Use your fraction wall to help you fill in the missing digits.

a $\frac{1}{3} = \frac{\square}{6}$

b $\frac{1}{3} = \frac{\square}{9}$

c $\frac{2}{6} = \frac{\square}{9}$

d $\frac{2}{3} = \frac{\square}{6}$

e $\frac{3}{9} = \frac{\square}{3}$

f $\frac{\square}{3} = \frac{9}{9}$

HOMEWORK

This fraction wall shows the whole, fifths and tenths

whole									
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Use the fraction wall to help you find the missing digits:

1 $\frac{1}{5} = \frac{\square}{10}$

2 $\frac{\square}{5} = \frac{4}{10}$

3 $\frac{3}{5} = \frac{\square}{10}$

4 $\frac{\square}{5} = \frac{8}{10}$

5 $\frac{5}{5} = \frac{\square}{10}$

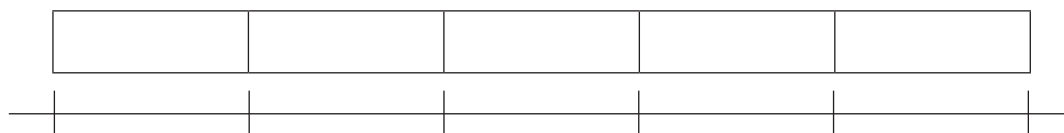
Lesson 14: Compare fractions

Mental maths

Read each fraction to your partner

1	$\frac{1}{3}$		6	$\frac{3}{5}$	
2	$\frac{1}{4}$		7	$\frac{2}{3}$	
3	$\frac{1}{5}$		8	$\frac{4}{5}$	
4	$\frac{3}{4}$		9	$\frac{2}{4}$	
5	$\frac{2}{5}$		10	$\frac{5}{5}$	

Activity 1



A What number do you write on the first mark on the number line? _____

What number do you write on the last mark on the number line? _____

Write these values on the number line

B Write $\frac{1}{5}$ on the fraction strip.

Shade in the same length as the $\frac{1}{5}$ on the fraction strip on the number line.

Write $\frac{1}{5}$ on the number line

C Write another $\frac{1}{5}$ on the fraction strip.

Shade in $\frac{2}{5}$ on the number line.

Write $\frac{2}{5}$ on the number line.

D Write another $\frac{1}{5}$ on the fraction strip.

Shade in $\frac{3}{5}$ on the number line.

Write $\frac{3}{5}$ on the number line.

Lesson 14: Compare fractions

E Write another $\frac{1}{5}$ on the fraction strip.

Shade in $\frac{4}{5}$ on the number line.

Write $\frac{4}{5}$ on the number line.

F What other fraction can we write at 1?

Use your number line to help you. Write $<$ or $>$ or $=$ between the two fractions.

a $\frac{1}{5} \dots \frac{1}{5}$

b $\frac{5}{5} \dots \frac{4}{5}$

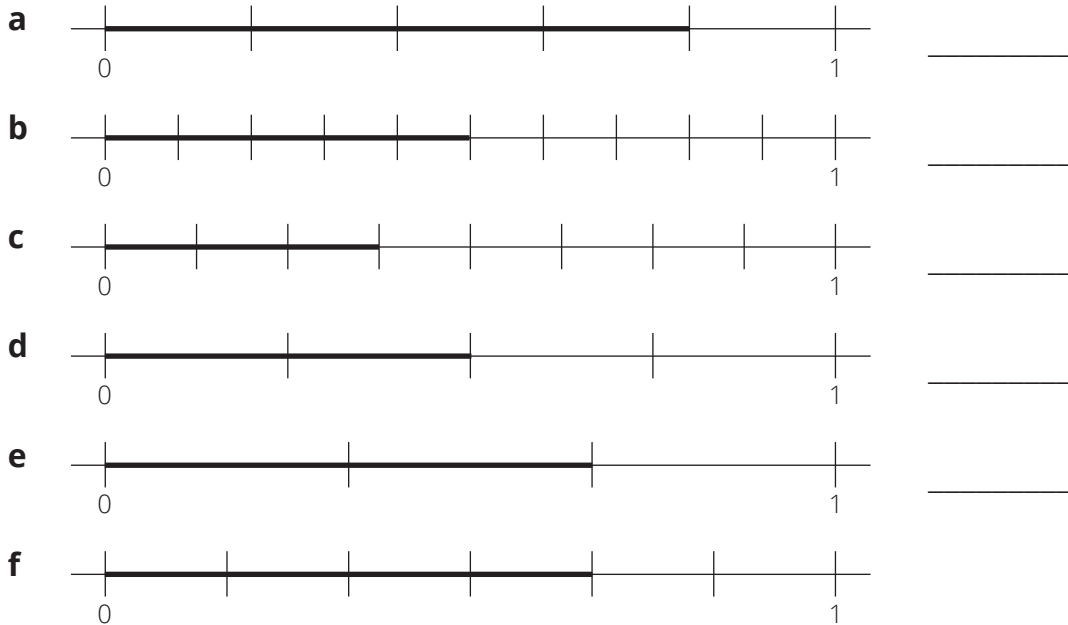
c $\frac{3}{5} \dots \frac{1}{5}$

d $1 \dots \frac{5}{5}$

e $\frac{2}{5} \dots 1$

Activity 2

1 Write the fractions shaded on each number line:



2 Use your number lines in 1 to compare these fractions.
Fill in either $<$ or $>$ or $=$ between the two fractions.

a $\frac{4}{5} \dots \frac{5}{10}$

b $\frac{3}{8} \dots \frac{2}{4}$

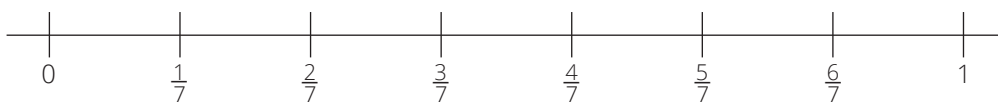
c $\frac{2}{3} \dots \frac{4}{6}$

3 **a** How many equal parts in this whole?



Lesson 14: Compare fractions

- b** On the number line, shade in $\frac{2}{7}$ of the whole.



- c** On the number line, shade in $\frac{5}{7}$ of the whole.



- d** Use your number lines to compare these fractions.

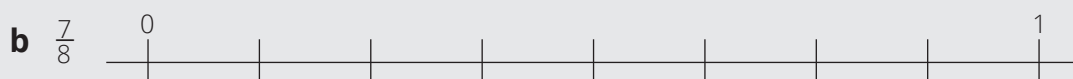
Which is bigger: $\frac{2}{7}$ or $\frac{5}{7}$?

- e** Fill in either $<$ or $>$ or $=$ between the two fractions.

$$\frac{2}{7} \dots \frac{5}{7}$$

HOMEWORK

1 Write the fractions on the number lines.



2 a. Which fraction is the smallest: $\frac{1}{8}$ or $\frac{7}{8}$ or $\frac{1}{2}$? _____

b. Use your number lines to explain why it is the smallest fraction of the three fractions.

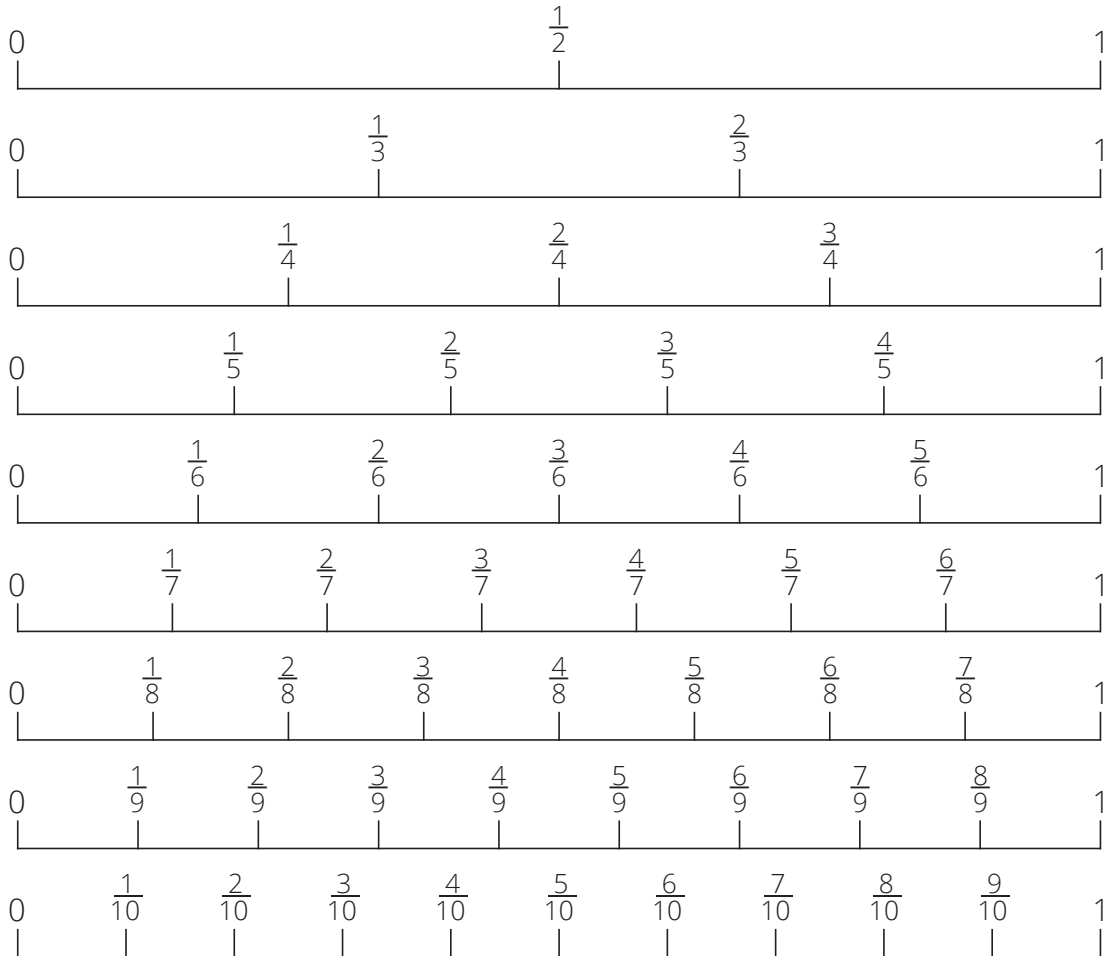
Lesson 15: Order fractions

Mental maths

Read each fraction to your partner

1	$\frac{4}{6}$		6	$\frac{2}{7}$	
2	$\frac{3}{8}$		7	$\frac{1}{9}$	
3	$\frac{5}{9}$		8	$\frac{1}{6}$	
4	$\frac{7}{9}$		9	$\frac{5}{6}$	
5	$\frac{7}{7}$		10	$\frac{3}{9}$	

Activity 1



Write down all the fractions on the number lines that are equal to a half.

Fill in < or > or =:

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

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

Activity 2

1 Use the diagram in Activity 1. It shows fractions on 9 number lines. Fill in >, < or = to make the number sentences true.

a. $\frac{1}{4} (\square) \frac{3}{8}$

b. $\frac{3}{4} (\square) \frac{6}{8}$

c. $\frac{4}{5} (\square) \frac{9}{10}$

d. $\frac{3}{5} (\square) \frac{6}{10}$

e. $\frac{1}{4} (\square) \frac{1}{8}$

f. $\frac{1}{3} (\square) \frac{3}{9}$

g. $\frac{6}{7} (\square) \frac{6}{8}$

h. $1 (\square) \frac{10}{10}$

i. $\frac{6}{9} (\square) \frac{4}{6}$

Lesson 15: Order fractions

2. a. What fraction of each number line has been shaded in?



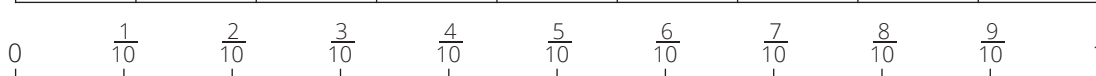
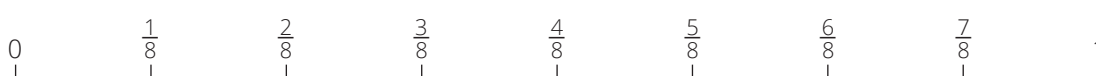
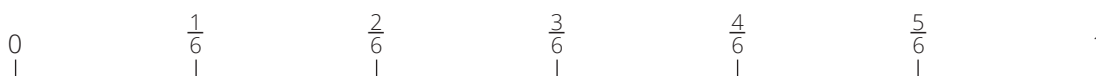
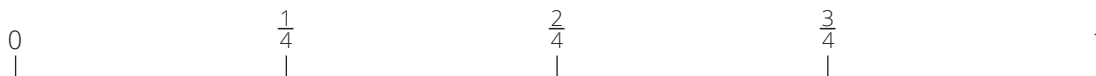
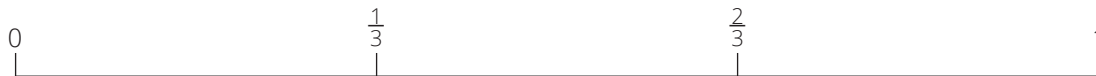
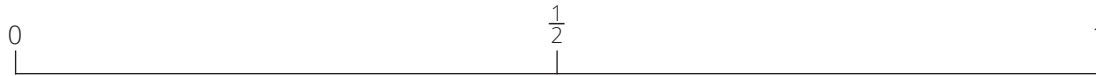


b. Use the number lines to decide whether you put $<$ or $>$ or $=$ between the two fractions.

$$\frac{1}{3} (\square) \frac{1}{5}$$

Activity 3

Use the diagram showing fractions on 9 number lines.

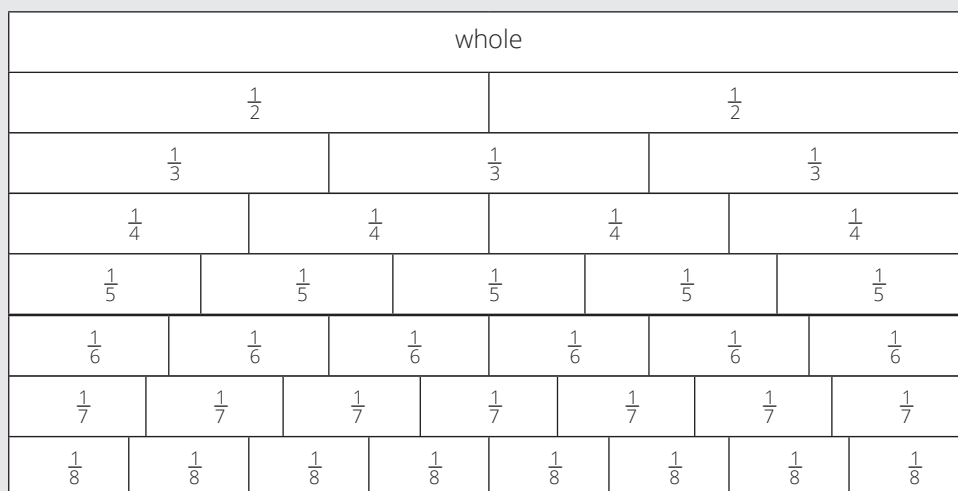


- a. Write the fractions $\frac{7}{8}$; $\frac{2}{3}$; $\frac{1}{2}$ in order from smallest to biggest.

- b. Write the fractions $\frac{5}{5}$; $\frac{5}{6}$; $\frac{4}{5}$ in order from biggest to smallest.

HOMEWORK

Use the fraction wall and a ruler to help you answer the questions.



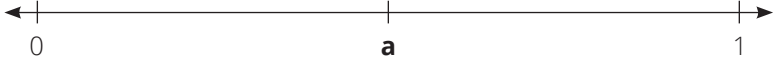
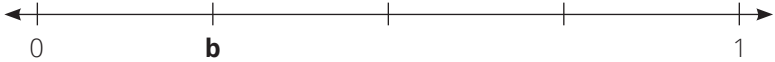
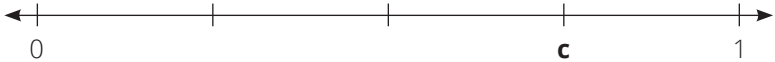


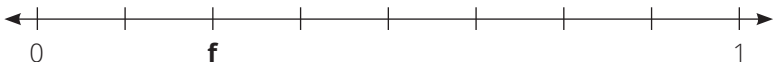
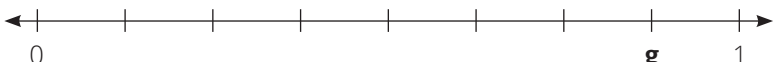
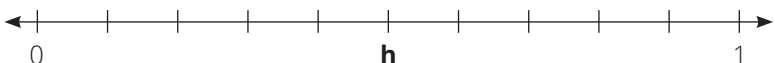
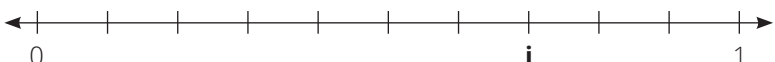
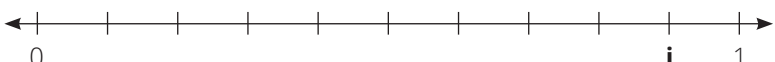
- 1 Draw a circle around each fraction that is smaller than one half.

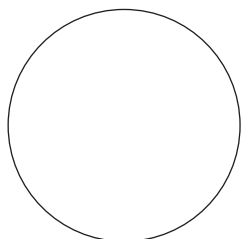
a $\frac{1}{5}$ b $\frac{5}{6}$ c $\frac{4}{8}$ d $\frac{1}{7}$ e $\frac{1}{6}$ f $\frac{1}{4}$

- 2 Write the fractions in Question 1 in order from smallest to biggest.

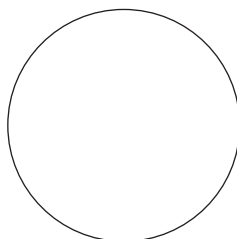
Lesson 16: Fractions bigger than 1

Mental maths

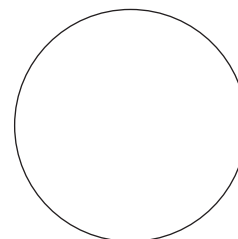
1	Name the fraction at a on the number line 	a = _____
2	Name the fraction at b on the number line 	b = _____
3	Name the fraction at c on the number line 	c = _____
4	Name the fraction at d on the number line 	d = _____
5	Name the fraction at e on the number line 	e = _____
6	Name the fraction at f on the number line 	f = _____
7	Name the fraction at g on the number line 	g = _____
8	Name the fraction at h on the number line 	h = _____
9	Name the fraction at i on the number line 	i = _____
10	Name the fraction at j on the number line 	j = _____

Activity 2

**Fractions
less than 1**
(Proper fractions)



**Fractions
equal to 1**
(Improper fractions)



**Fractions
greater than 1**
(Improper fractions)

Draw a circle around the proper fractions.

Draw a square around the improper fractions.

$\frac{1}{5}$

$\frac{2}{2}$

$\frac{7}{6}$

$\frac{6}{7}$

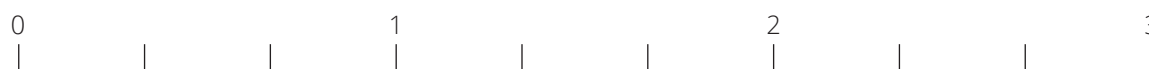
$\frac{11}{6}$

Activity 3

Write $\frac{7}{5}$ on this number line.

Write $\frac{14}{5}$ on this number line.

How do we write 2 and $\frac{4}{5}$? _____



Write $1\frac{2}{3}$ on this number line.

Lesson 16: Fractions bigger than 1

- 1** Use the number line to help you write the following improper fractions as mixed numbers:



a $\frac{7}{5} =$ _____

b $\frac{9}{5} =$ _____

- 2** Use the number line to help you write the following mixed numbers as improper fractions:



a $1\frac{3}{4} =$ _____

b $2\frac{1}{4} =$ _____

HOMEWORK

- 1** Use the number line to help you convert the improper fractions into mixed numbers.



a $\frac{5}{4} =$ _____

b $\frac{10}{4} =$ _____

- 2** Use the number line to help you convert the improper fractions as mixed numbers:

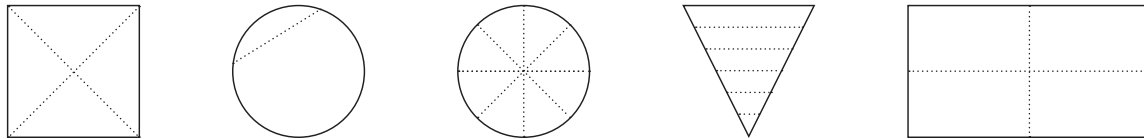


a $\frac{8}{5} =$ _____

b $\frac{6}{5} =$ _____

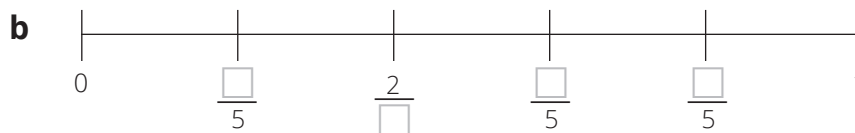
Lesson 17: Consolidation

1 a Draw a circle around the shapes that do not show fractions.

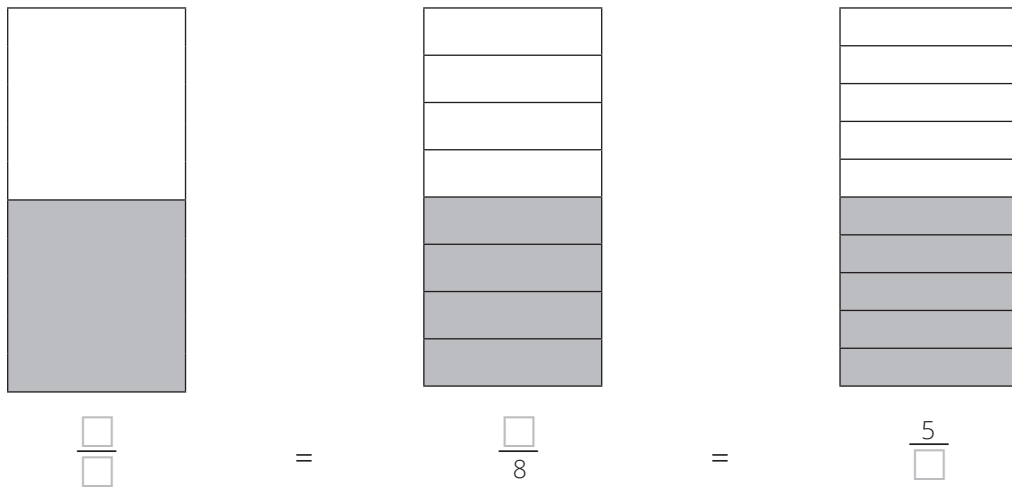


b Explain why you say the shapes do not show fractions.

2 Complete the fractions on each number line.



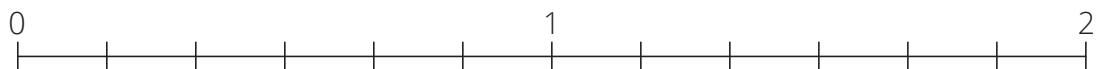
3 a Complete the equivalent fraction below each drawing.



b The wholes are all the same size and the fractions all represent the same amount.

Are these fractions improper fractions, equivalent fractions or mixed numbers?

4 Use the number line to help you write the following improper fractions as mixed numbers:



a $\frac{7}{6} =$ _____

b $\frac{11}{6} =$ _____

Lesson 17: Consolidation

- 5** Use the number line to help you convert the following mixed numbers into improper fractions:



a $1\frac{2}{3} =$ _____

b $2\frac{1}{3} =$ _____

- 6** Fill in $>$; $<$ or $=$ to make the number sentences true.

a $\frac{1}{2} () \frac{4}{8}$

b $\frac{3}{6} () \frac{2}{3}$

c $\frac{8}{8} () \frac{4}{4}$

d $\frac{3}{4} () \frac{5}{8}$

e $\frac{3}{10} () \frac{1}{5}$

f $\frac{8}{9} () 1\frac{1}{9}$




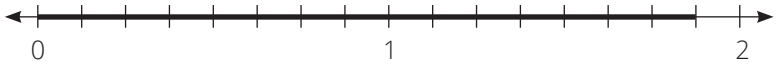

g $1\frac{2}{4} () 1\frac{1}{2}$

h $\frac{2}{2} () \frac{10}{10}$

i $\frac{5}{9} () \frac{2}{3}$

Lesson 18: Adding fractions (1)

Mental maths

Write as an improper fraction:		
1	$1\frac{3}{4} =$ _____	
2	$2\frac{1}{3} =$ _____	
3	$1\frac{3}{5} =$ _____	
Write as a mixed number		
4	$\frac{15}{8} =$ _____	
5	$\frac{5}{2} =$ _____	

Activity 2

- 1 Mother used $\frac{3}{5}$ kg flour to make scones and $\frac{1}{5}$ kg flour to make scones.

How much flour did mother use altogether?

Write the number sentence: _____

Find the answer:

Mother used _____

Lesson 18: Adding fractions (1)

- 2 Mia has read $\frac{4}{9}$ of a book. Gina has read $\frac{3}{9}$ more of the book than Mia.

What fraction of the book has Gina read?

Draw a picture to show the problem.

Write the number sentence: _____

Find the answer:

Gina has read _____ of the book.

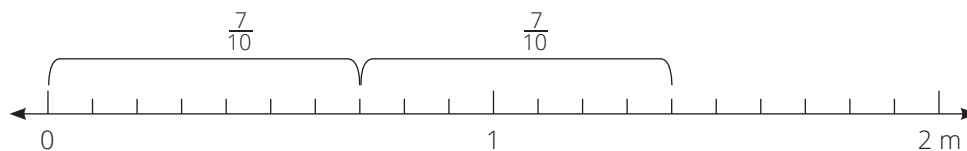
Activity 3

- 1 Annie used $\frac{7}{10}$ kg of the sugar and then another $\frac{7}{10}$ kg of the sugar.

How many kilograms of the sugar has Annie used altogether?

Write the number sentence: _____

You can use this number line to help you find the answer:



Answer: Annie has used _____ kg of the sugar.

- 2** Godwin drank $\frac{2}{8}$ litre of milk yesterday and $\frac{6}{8}$ litre today.

How much milk did he drink in total?

Write the number sentence: _____

Find the answer:

Hint: Think about
how many eighths
make a whole

Answer: _____

3 Calculate

a $\frac{6}{4} + \frac{1}{4}$

= _____

= _____

b $\frac{2}{3} + \frac{2}{3}$

= _____

= _____

c $\frac{5}{7} + \frac{4}{7}$

= _____

= _____

d $\frac{7}{8} + \frac{5}{8}$

= _____

= _____

Lesson 18: Adding fractions (1)

e $\frac{2}{6} + \frac{5}{6}$

= _____

= _____

f $\frac{2}{4} + \frac{3}{4}$

= _____

= _____

g $\frac{7}{9} + \frac{2}{9}$

= _____

= _____

h $\frac{7}{10} + \frac{8}{10}$

= _____

= _____

HOMEWORK

Calculate

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

= _____

= _____

Remember
that you always
change the
answer to a mixed
number if it is an
improper fraction

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

= _____

= _____

3 $\frac{4}{5} + \frac{3}{5}$

= _____

= _____

Lesson 19: Adding fractions (2)

Mental maths

		Answer			Answer
1	$\frac{2}{4} + \frac{1}{4} =$		6	$\frac{2}{6} + \frac{1}{6} =$	
2	$\frac{1}{3} + \frac{1}{3} =$		7	$\frac{1}{8} + \frac{3}{8} =$	
3	$\frac{5}{7} + \frac{1}{7} =$		8	$\frac{2}{5} + \frac{1}{5} =$	
4	$\frac{2}{8} + \frac{5}{8} =$		9	$\frac{1}{4} + \frac{1}{4} =$	
5	$\frac{3}{6} + \frac{2}{6} =$		10	$\frac{3}{5} + \frac{1}{5} =$	

Activity 2

1 Use a number line to calculate: $1\frac{1}{7} + \frac{2}{7} = \square$

Show the problem on the number line:



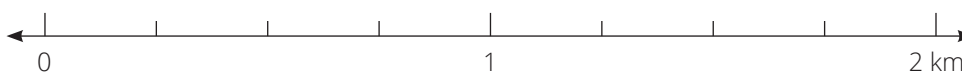
Answer: _____

2 On Sunday, Mari walked $1\frac{1}{4}$ km in the morning and $\frac{3}{4}$ km in the afternoon.

How far did Mari walk on Sunday?

Write the number sentence: _____

Show the problem on the number line:



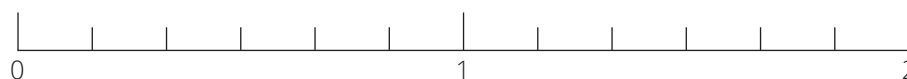
Answer: _____

Activity 3

1 Calculate: $1\frac{2}{8} + \frac{5}{8} = \square$

2 Calculate: $\frac{1}{6} + 1\frac{4}{6} = \square$

a Show the addition on a number line:



b Write the answer as a mixed number: _____

3 Use a method of your choice to calculate: $\frac{3}{8} + 1\frac{4}{8} = \square$

HOMEWORK

1 Calculate: $1\frac{1}{6} + \frac{3}{6} = \square$

Show the problem on a number line



Answer: _____

2 Use a method of your choice to calculate: $1\frac{1}{7} + \frac{5}{7} = \square$

Lesson 20: Subtract fractions (1)

Mental maths

	Write as a mixed number:		Write as an improper fraction:
1	$\frac{5}{4} =$		6 $1\frac{1}{3} =$
2	$\frac{5}{3} =$		7 $1\frac{2}{8} =$
3	$\frac{10}{7} =$		8 $1\frac{5}{6} =$
4	$\frac{9}{6} =$		9 $1\frac{1}{9} =$
5	$\frac{7}{5} =$		10 $1\frac{6}{7} =$

Activity 1

Calculate

1 $\frac{4}{5} - \frac{2}{5} =$ _____

2 $\frac{8}{8} - \frac{7}{8} =$ _____

3 $\frac{2}{4} - \frac{2}{4} =$ _____

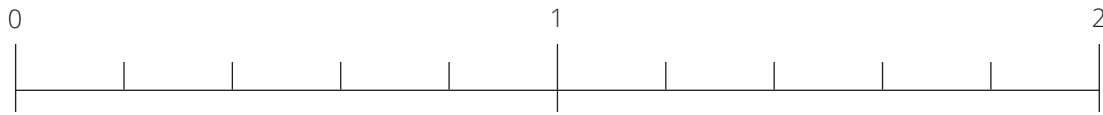
4 $\frac{5}{7} - \frac{1}{7} =$ _____

5 $\frac{2}{3} - \frac{1}{3} =$ _____

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

Lesson 20: Subtract fractions (1)

Activity 2



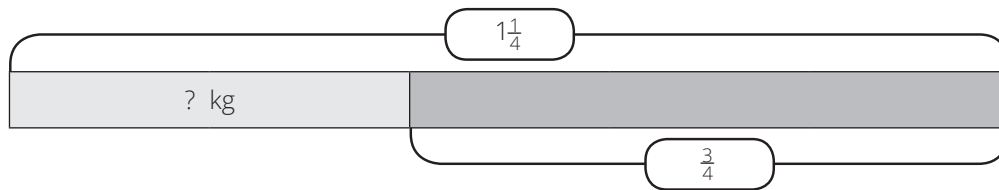
1 Felix had $1\frac{1}{4}$ kg of sugar.

He used $\frac{3}{4}$ kg of the sugar.

How much kg of sugar does Felix have left?

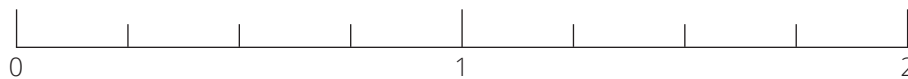


a Use the diagram to help you write the number sentence.



Number sentence: _____

b Use the number line to find the answer.



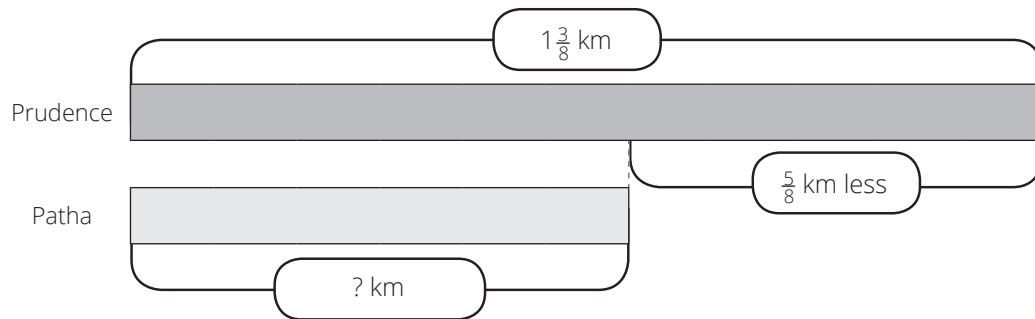
Answer: _____

2 Prudence has run $1\frac{3}{8}$ km.

Patha has run $\frac{5}{8}$ km less than Prudence.

How far has Patha run?

a Use the diagram to help you write the number sentence.



Number sentence: _____

b Use the number line to find the answer.



Answer: _____

3 Calculate $1\frac{1}{5} - \frac{4}{5} = \square$. Use a method of your choice.

HOMEWORK

1 Busi had $1\frac{2}{7}$ litres of milk.

She used $\frac{4}{7}$ litres to bake scones.

How much milk does Busi have left?

a Write the number sentence: _____

b Use the number line or fraction strip to find the answer.



Answer: _____

2 Calculate: $1\frac{1}{3} + \frac{2}{3} = \square$. Use a method of your choice.

Lesson 21: Subtract fractions (2)

Mental maths

		Answer			Answer
1	$\frac{2}{3} - \frac{1}{3} =$		6	$\frac{8}{8} - \frac{3}{8} =$	
2	$\frac{6}{7} - \frac{2}{7} =$		7	$\frac{3}{4} - \frac{1}{4} =$	
3	$1 - \frac{5}{6}$		8	$\frac{1}{5} - \frac{1}{5} =$	
4	$\frac{7}{8} - \frac{5}{8} =$		9	$\frac{4}{6} - \frac{3}{6} =$	
5	$\frac{4}{5} - \frac{2}{5} =$		10	$\frac{3}{7} - \frac{1}{7} =$	

Activity 1

Calculate:

1 $1 - \frac{1}{4} = \square$

2 $1 - \frac{3}{7} = \square$

Activity 2

1 Mbeki had $\frac{4}{5}$ litres of juice left.

How much juice did he drink if he had $1\frac{1}{5}$ litres of juice to start with?

a Write the number sentence: _____

b Write the mixed number as an improper fraction: _____

c Do the subtraction: _____

d Write the answer

2 The distance from home to school is $1\frac{3}{10}$ kilometres.

Tom has walked $\frac{7}{10}$ kilometres.

How far does Tom still have to walk?

a Write the number sentence: _____

b Write the mixed number as an improper fraction: _____

c Do the subtraction: _____

d Write the answer

3 Ms Phumla bought $1\frac{1}{4}$ metres of ribbon.

She used $\frac{3}{4}$ metres for a present.

How much of ribbon does she have left?

a Write the number sentence: _____

b Write the mixed number as an improper fraction: _____

c Do the subtraction: _____

d Write the answer

4 Calculate

a $1\frac{2}{8} - \frac{7}{8} = \square$

b $1\frac{1}{6} - \frac{5}{6} = \square$

c $1\frac{1}{9} - \frac{5}{9} = \square$

Lesson 21: Subtract fractions (2)

d $1\frac{2}{7} - \frac{3}{7} = \square$

e $1\frac{2}{3} - \frac{2}{3} = \square$

f $1\frac{3}{8} - \frac{7}{8} = \square$

HOMEWORK

Calculate

1 $\frac{6}{6} - 1 = \square$

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

3 $1\frac{7}{8} - \frac{9}{8} = \square$

4 $1\frac{5}{7} - \frac{6}{7} = \square$

Lesson 22: Consolidation

1 Calculate:

a $\frac{1}{3} + \frac{1}{3} =$

b $\frac{5}{7} - \frac{1}{7} =$

2 Calculate:

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

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

3 Calculate:

a $\frac{4}{9} + \frac{7}{9} =$

b $1\frac{3}{7} - \frac{5}{7} =$

4 Use any method to calculate:

a $1\frac{2}{3} - \frac{5}{3} =$

b $\frac{6}{8} - \frac{2}{8} =$

Lesson 23: Organise data in tables

Mental maths

1	Start at 0 and count up in 5s until you reach 50.	
2	Start at 100 and count down in 5s until you reach 50	
3	Start at 890 and count up in 5s until you reach 930.	
4	Start at 410 and count down in 5s until you reach 370	
5	Start at 580 and count up in 5s until you reach 620.	
6	Start at 430 and count down in 5s until you reach 390	

Link to previous lesson

Write totals in this tally table.

Favourite fruit	Tallies	Total
Apple		
Banana		
Mango		
Total		

Activity 1

Favourite cool drink	Tallies	Frequency
Coca Cola		
Fanta Grape		
Fanta Orange		
Sprite		
Other		
TOTAL		

Activity 2

1. What numbers do these tally marks represent?

		Answer			Answer
a			b	++++	
c	++++		d	++++ +++++	
e	++++ +++++		f	++++	

2. The Grade 4 class were asked to find out how many buses, motor bikes, trucks, motor cars, taxis and bicycles went past their school one morning. They worked together and recorded their data in this tally table.

a. Calculate the frequency of each type of vehicle (example: bus, motor bike) and then calculate the total number of vehicles that went past their school that morning.

Number of vehicles passing the school one morning		
	Tallies	Frequency
Buses	++++	
Motor bikes	++++ +++++	
Trucks	++++ +++++ +++++	
Motor cars	++++ +++++ +++++ +++++ +++++	
Taxis	++++ +++++ +++++	
Bicycles	++++	
TOTAL		





b. Use the tally table to answer these questions:

How many more motor cars than buses went past the school?

How many more taxis than bicycles went past the school?

Activity 3

The Grade 4 class were asked “Which of the following vegetables do you like the most: carrots, beetroot, cabbage or mealies?”. Their answers were recorded using drawings.

Key	
Learners who prefer carrots	
Learners who prefer beetroot	
Learners who prefer cabbage	
Learners who prefer mealies	

1. **a.** Record the data in the tally table.
- b.** Record the frequency of each type of vegetable.

	Vegetable	Tallies	Frequency	
Write the four vegetables here				Write the total for each vegetable here

Write the total number of learners here

2. Use your tally and frequency table to answer these questions:

a. Which vegetable did the most learners like? _____

b. What vegetable did the least learners like? _____

c. How many learners like beetroot? _____

d. How many learners answered the question? _____

e. What is the difference between the most popular vegetable and the least popular vegetable?

HOMEWORK

Complete the table by filling in the frequencies and the total number.

Tallies	Frequency
Total	

Lesson 24: Classify and organise data (1)

Mental maths

1	Start at 270 and count up in 10s until you reach 350.	
2	Start at 820 and count down in 10s until you reach 740	
3	Start at 590 and count up in 10s until you reach 670.	
4	Start at 310 and count down in 10s until you reach 230	
5	Start at 910 and count up in 10s until you reach 990	
6	Start at 750 and count down in 10s until you reach 670.	

Link to previous lesson

Write totals in this tally table.

Most common shoe size		
Shoe size	Tallies	Frequency
1		
2		
3		
4		
5		
Total		

Activity 1

On Friday the Grade 4 class collected data on litter in the school.

They recorded the data in this table:

Table 1:

A	B
Where the litter was found	Type of litter
tuckshop	chip packet
playground	cool drink can
school gate	sweet paper
playground	sweet paper
inside classroom	scrap paper
tuckshop	cool drink can
playground	sweet paper
tuckshop	chip packet
tuckshop	chip packet
inside classroom	scrap paper
tuckshop	cool drink can
school gate	sweet paper
inside classroom	scrap paper
tuckshop	chip packet
playground	cool drink can
tuckshop	chip packet
tuckshop	chip packet
school gate	sweet paper



1. Study Table 1.

a. What data is listed in Column A? _____

b. What data is listed in Column B? _____

2. The learners want to use the data in Table 1 to answer the question:
Where was the most litter found?

- a. Complete this tally and frequency table:

Table 2:

Where the litter was found	Tallies	Frequency
tuckshop		
school gate		
inside classroom		
playground		
Total		

- b. Where was most litter found? _____

- c. Does Table 2 help you to answer the question:

Where was the most litter found? _____

3. The learners want to use the data to answer the question:
Which type of litter was most common on that day?

- a. Complete this tally and frequency table:

Table 3:

Type of litter	Tallies	Frequency
chip packet		
cool drink can		
sweet paper		
scrap paper		
Total		

- b. How much litter was found altogether? _____

- c. Which type of litter is most common? _____

- d. Does Table 3 help you to answer the question:

Which type of litter was most common on that day? _____

Activity 2

Work with your teacher to complete Table 4 and Table 5.

Table 4:

Type of litter Where found	Chip packet	Cool drink cans	Sweet papers	Scrap paper	TOTAL
Tuckshop					
School gate					
Inside classroom					
Playground					
TOTAL					

Table 5:

Type of litter Where found	Chip packet	Cool drink cans	Sweet papers	Scrap paper	TOTAL
Tuckshop					
School gate					
Inside classroom					
Playground					
TOTAL					

Use Table 5 to answer these questions:

1 Where were the chip packets found?

2 Where were the cool drink cans found?

3 Where were the sweet papers found?

4 Where was the scrap paper found?

5 How many cool drink cans were found in the playground? _____

6 Where was most sweet paper found?

7 Where would be the best place to put an extra rubbish bin?
Give a reason for your answer.

HOMEWORK

Use the two-way table to answer the questions.

Colour \ Type of polygon	Square	Triangle	Hexagon	TOTAL
Red	2	1	0	3
Blue	3	2	3	8
Yellow	5	4	5	14
TOTAL	10	7	8	25

1 How many red squares are there? _____

2 How many blue triangles are there? _____

3 How many hexagons are there altogether? _____

4 How many different colours are there? _____

5 How many polygons are yellow? _____

Lesson 25: Classify and organise data (2)

Mental maths

1	Start at 0 and count up in 20s until you reach 180.	
2	Start at 960 and count down in 20s until you reach 800	
3	Start at 560 and count up in 20s until you reach 720.	
4	Start at 700 and count down in 20s until you reach 540	
5	Start at 380 and count up in 20s until you reach 540.	
6	Start at 620 and count down in 20s until you reach 460	

Activity 1

Table showing distances, in kilometres, between places in South Africa

								Pretoria		
								Port Elizabeth	1120	
							Polokwane	1393	273	
						Mbombela	320	1373	342	
					Mafikeng	589	565	1122	292	
				Kimberley	360	832	805	752	532	
			Johannesburg	467	273	358	331	1062	58	
		East London	992	750	7029	1214	1323	300	1050	
	Durban	667	598	842	859	689	929	927	656	
Cape Town	1660	1042	1402	960	1320	1779	1736	756	7463	
Bloemfontein	998	667	575	417	175	427	771	748	635	475

Find the distance between:		Answer
1	Bloemfontein and Cape Town	km
2	Mafikeng and Pretoria	km
3	East London and Mbombela	km
4	Kimberley and Port Elizabeth	km
5	Durban and Bloemfontein	km

Activity 2

The Grade 4 learners conducted a survey to find out whether the learners in the class preferred a horse, a dog, a lion or an elephant.

They recorded the data in this table:

Table 1:

Boy/ Girl	Favourite animal
Boy	Horse
Girl	Horse
Girl	Dog
Boy	Lion
Boy	Dog
Girl	Dog
Girl	Lion
Boy	Horse
Girl	Dog
Girl	Elephant
Girl	Elephant
Boy	Lion
Girl	Dog
Boy	Elephant
Girl	Elephant
Boy	Lion
Boy	Horse
Girl	Dog
Boy	Lion
Girl	Dog

1. We first have to answer the question:
'How many boys and how many girls were surveyed?'
 - a. Use tallies to find out how many boys there are, how many girls there are and how many learners were surveyed.

Table 2:

	Tallies	Frequency
Boy		
Girl		
Total		

Lesson 25: Classify and organise data (2)

b. How many girls were surveyed? _____

c. How many more girls were surveyed than boys?

2. We have to answer the question: 'Which animal is the learners' favourite?'

a. Use tallies to find out which animals the children liked the most.

Table 3:

	Tallies	Frequency
Lion		
Dog		
Horse		
Elephant		
Total		

b. Is the total for Table 2 and Table 3 the same? _____

c. How many learners said a dog is their favourite animal? _____

d. How many learners said an elephant is their favourite animal? _____

3. The learners want to answer the questions: 'Which animal is the girls' favourite? And which animal is the boys' least favourite?' so they drew a two-way table.

a. Use tallies to find out which animal the boys and girls prefer.

Favourite animal Boy or girl	Lion	Dog	Horse	Elephant	TOTAL
Boys					
Girls					
TOTAL					

b. Replace the tallies with numbers and find the totals.

Favourite animal Boy or girl	Lion	Dog	Horse	Elephant	TOTAL
Boys					
Girls					
TOTAL					

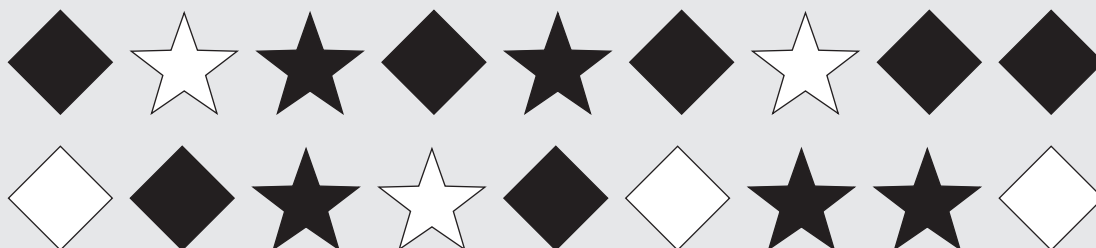
c. What is the girls' favourite animal? _____

d. Which animals are the boys' least favourite animals?

e. How many girls said a lion was their favourite animal? _____

HOMEWORK

1 Record the information about the 2D shapes in the table.



	Square	Star	Total
Black			
White			
Total			

2. a How many black stars are there? _____

b How many white 2D shapes are there? _____

c How many squares are there altogether? _____

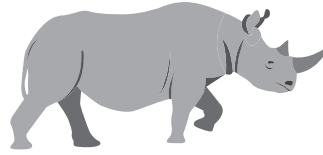
Lesson 26: Bar graphs (1)

Mental maths

1	Start at 0 and count up in 25s until you reach 200.	
2	Start at 200 and count down in 25s until you reach 100	
3	Start at 150 and count up in 25s until you reach 350.	
4	Start at 400 and count down in 25s until you reach 200	
5	Start at 550 and count up in 25s until you reach 750.	
6	Start at 725 and count down in 25s until you reach 525	

Activity 1

It is sad that every year rhinos are killed by poachers.

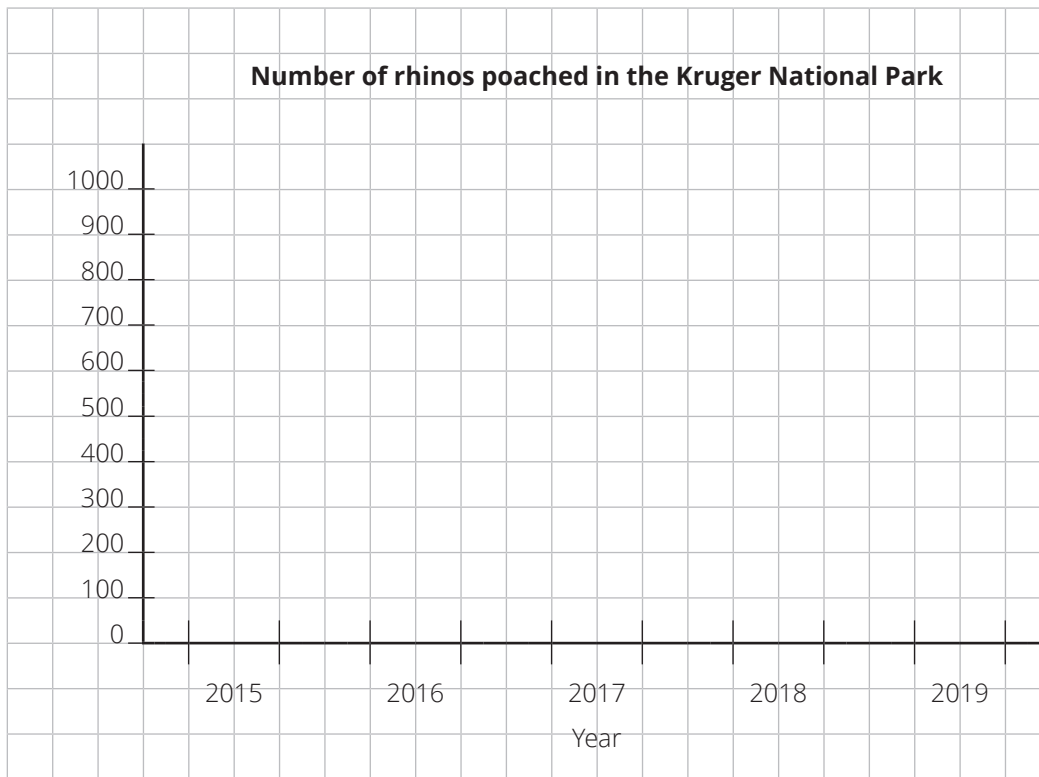


Poaching is illegal hunting

Data about rhino poaching in the Kruger National Park

Rhino poached in the Kruger National Park					
Year	2015	2016	2017	2018	2019
Number of rhino poached	850	700	500	450	600

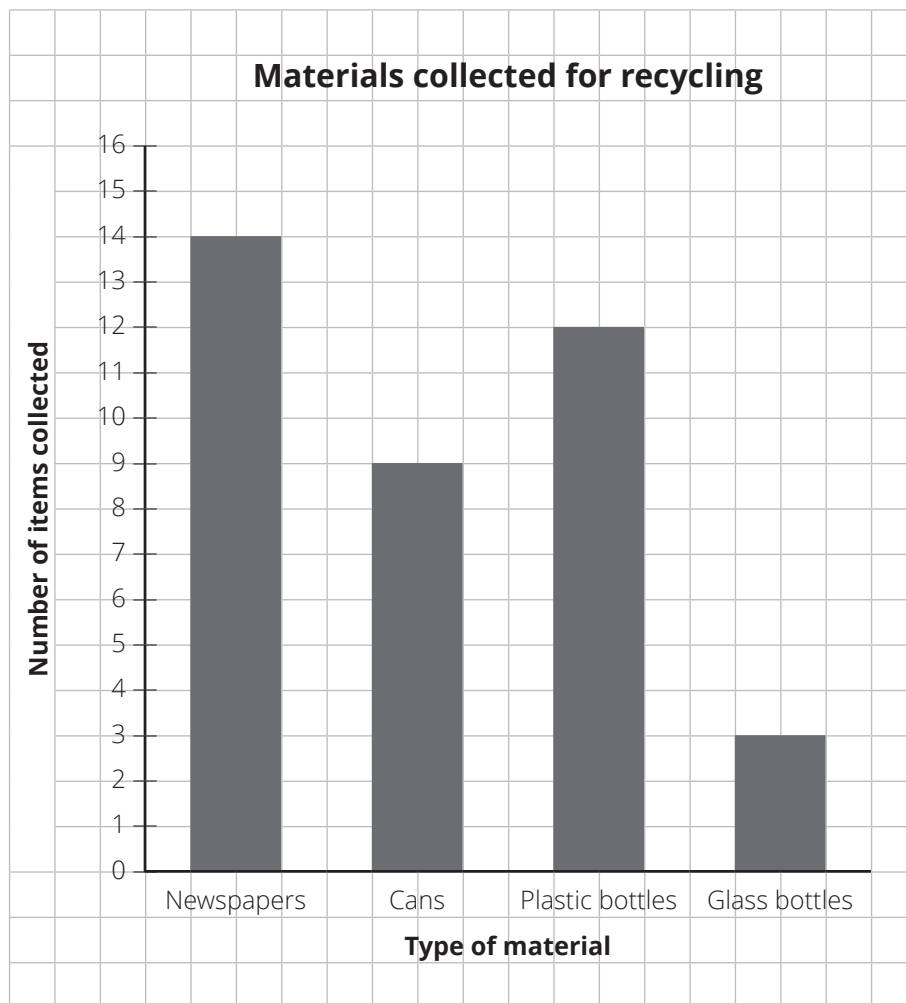
Use the data from the table to draw the bar for each year.



Activity 2

A Grade 4 class collected material for a recycling project.

They drew a graph to show the number of pieces of each type of material the learners collected.



Use the graph to answer the questions.

1. What do the four bars represent? _____

2. Which type of material did the learners collect most of?

Lesson 26: Bar graphs (1)

3. How many glass bottles were collected? _____

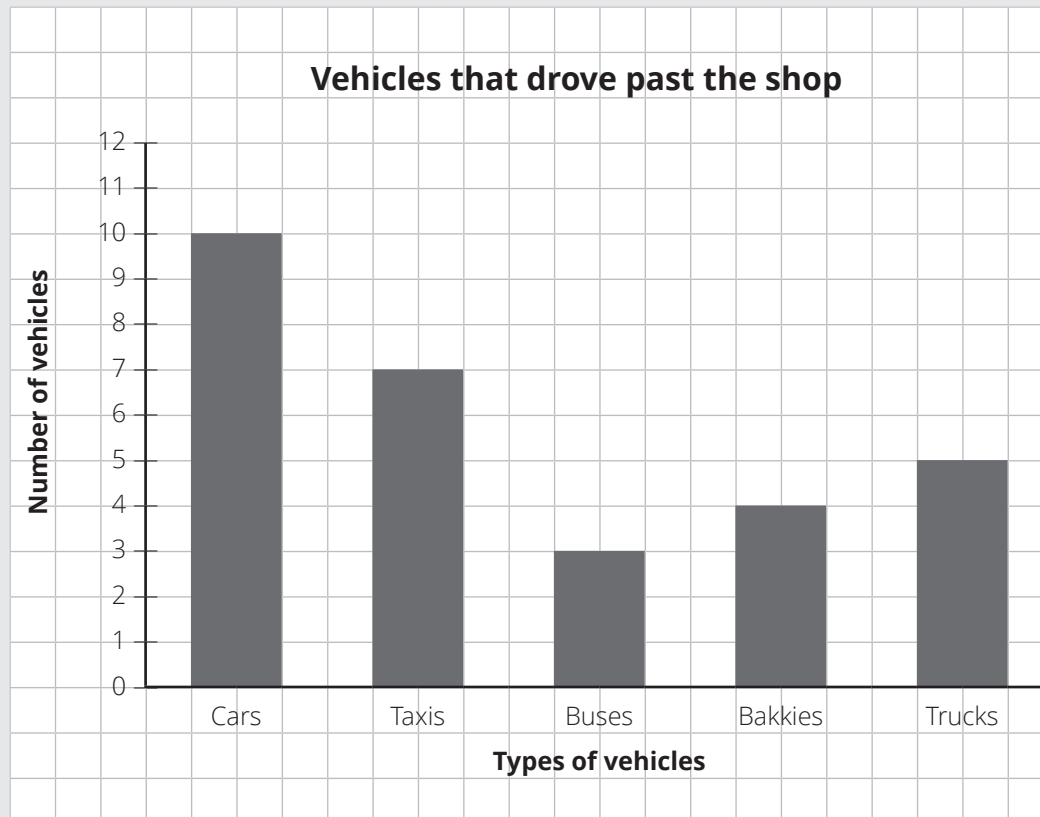
4. How many more plastic bottles than glass bottles did learners collect?

5. How many items did they collect altogether?

6. Write the types of material collected in order of the least material collected to the most material collected.

HOMEWORK

The bar graph shows the number of vehicles that drove past a shop in half an hour.



Look at the bar graph as you answer the questions.

1. How many bakkies drove past the shop? _____
2. How many cars drove past the shop? _____
3. How many more trucks than bakkies drove past the shop?

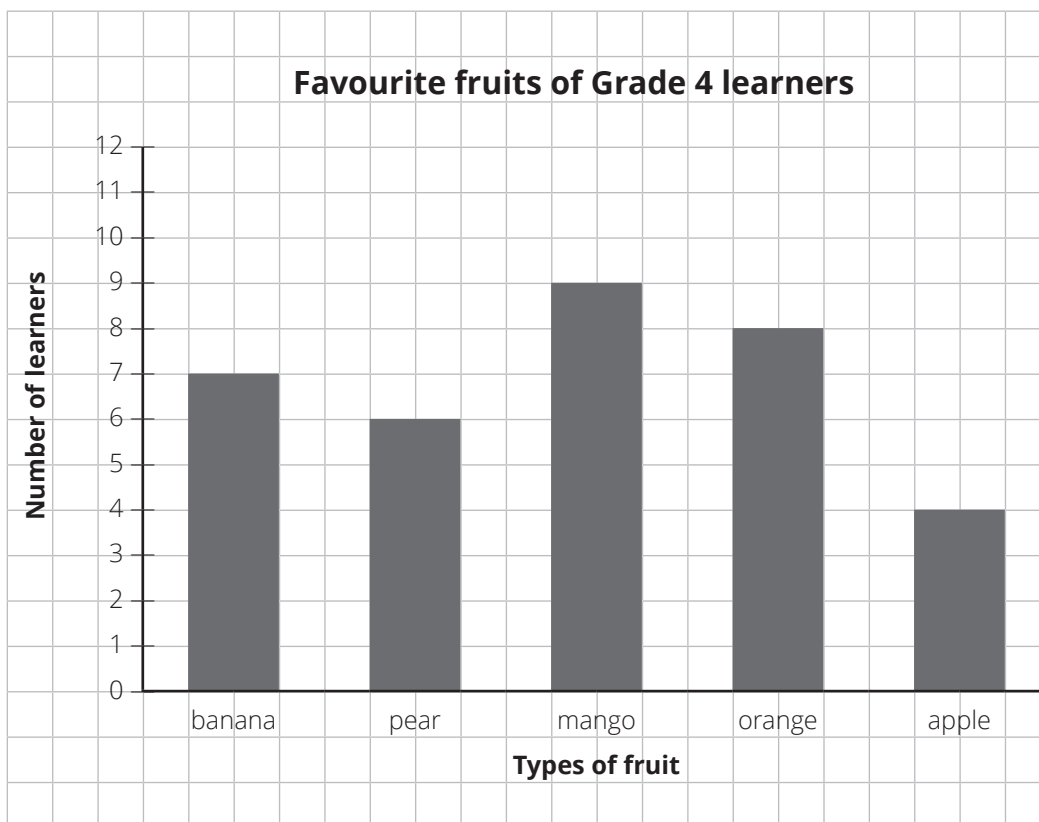
4. How many vehicles drove past the shop altogether in that half an hour?

Lesson 27: Intervals on a bar graph (1)

Mental maths

1	Start at 850 and count up in 25s until you reach 1 000.	
2	Start at 900 and count down in 25s until you reach 725.	
3	Start at 625 and count up in 25s until you reach 775.	
4	Start at 450 and count down in 25s until you reach 275.	
5	Start at 375 and count up in 25s until you reach 575.	
6	Start at 525 and count down in 25s until you reach 325.	

Link to previous lesson



Activity 2

1. The table shows the price of sweets.

Sweet	Price (rand)
Sugar pop	6
Candy twist	9
Chewy gum	4
Sherbet	3
Chocolate	10

a. What is the biggest number? _____

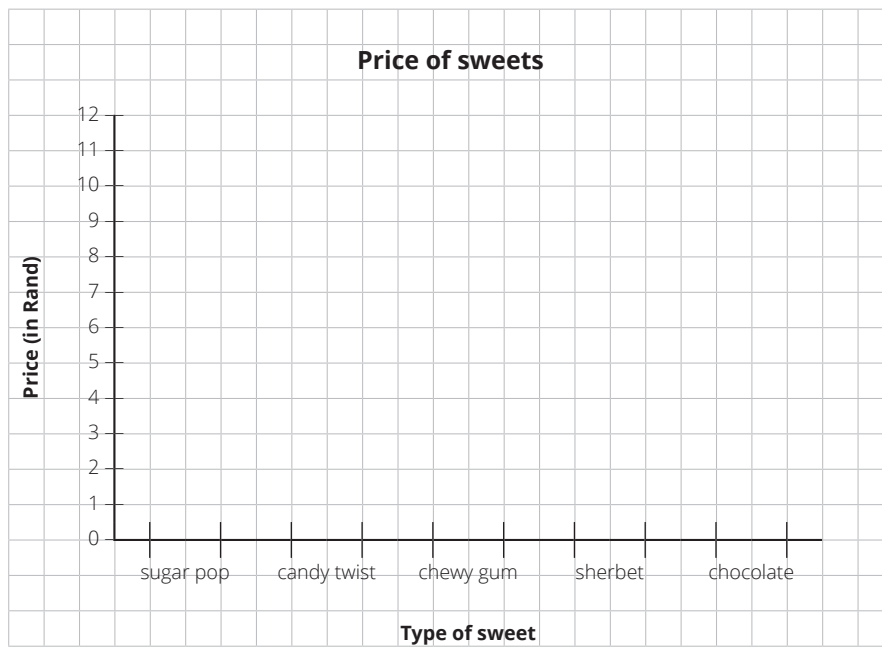
b. What is the smallest number? _____

c. What interval do you think should you use for one space on the vertical axis?

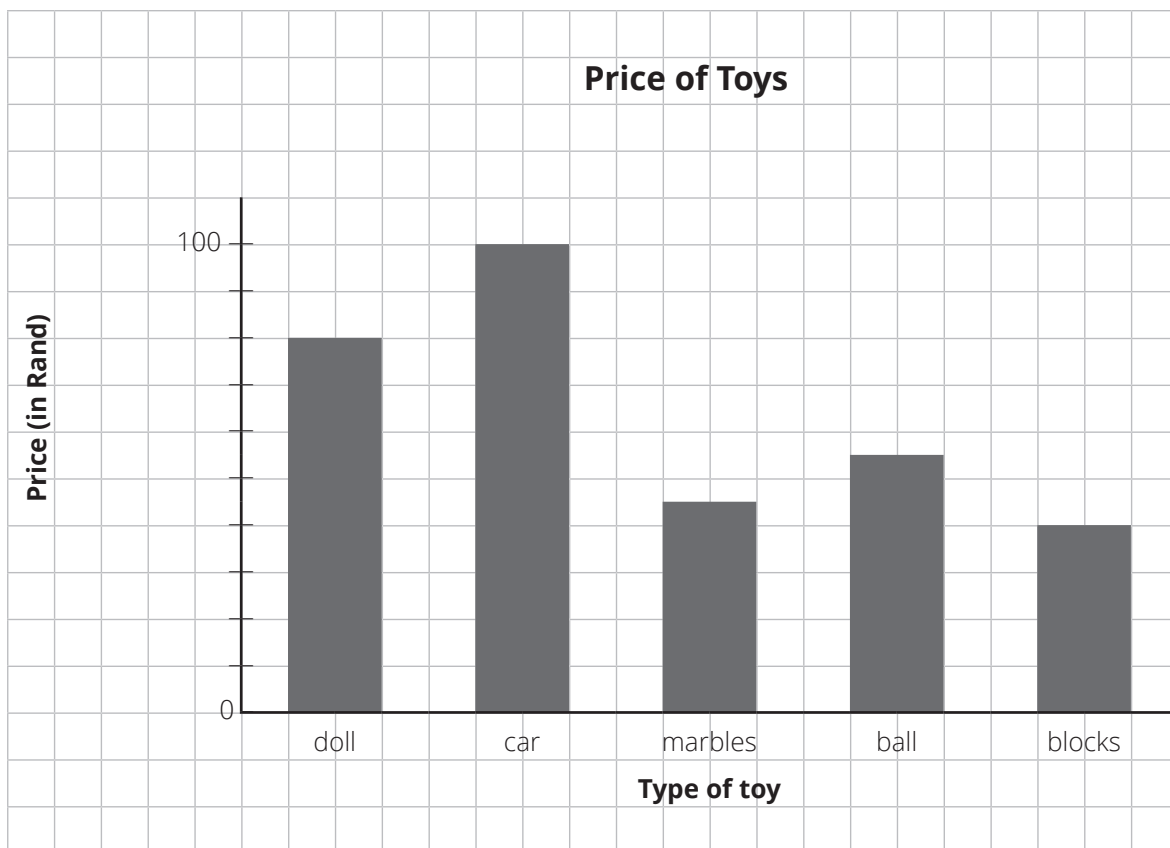
d. Give a reason for your answer.

Lesson 27: Intervals on a bar graph (1)

e. Complete the bar graph.



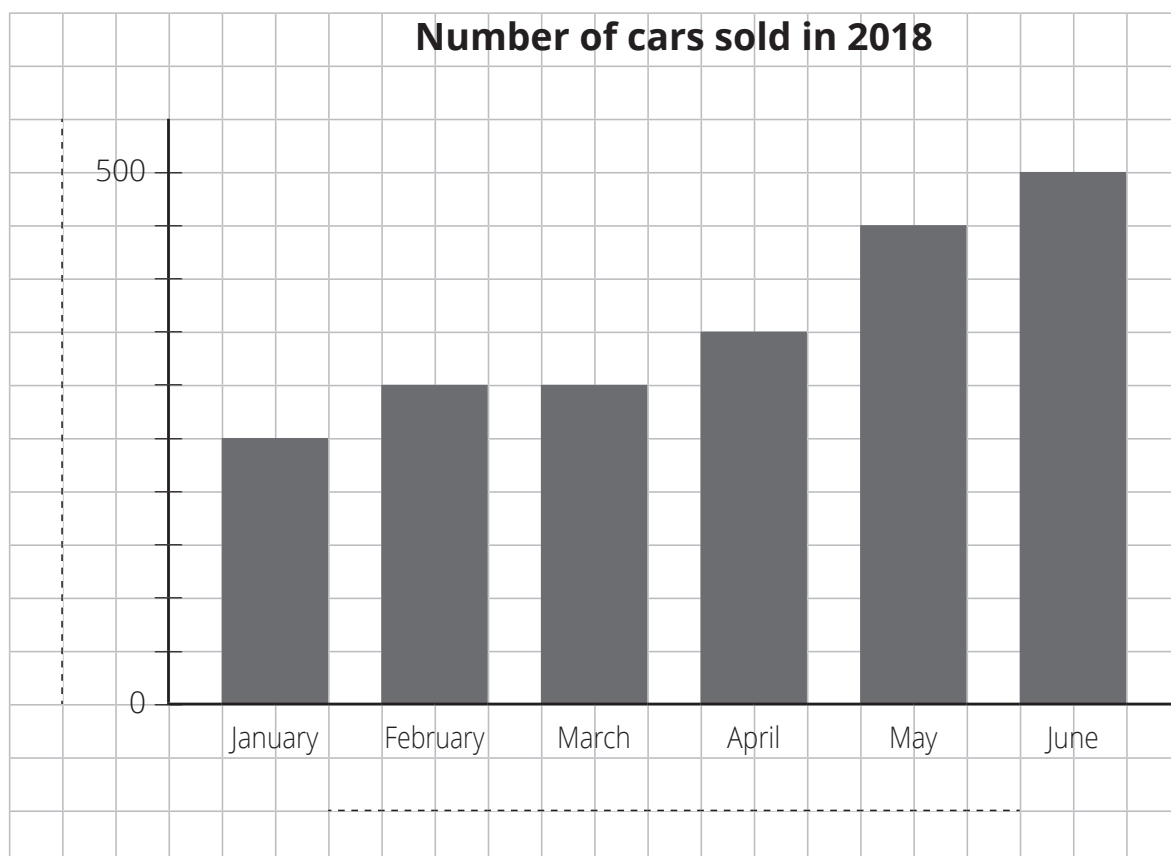
2. The graph shows the price of toys.



- What is the interval on the vertical axis? _____
- Write all the numbers on the vertical axis.
- Write the price of each toy on the top of each bar.

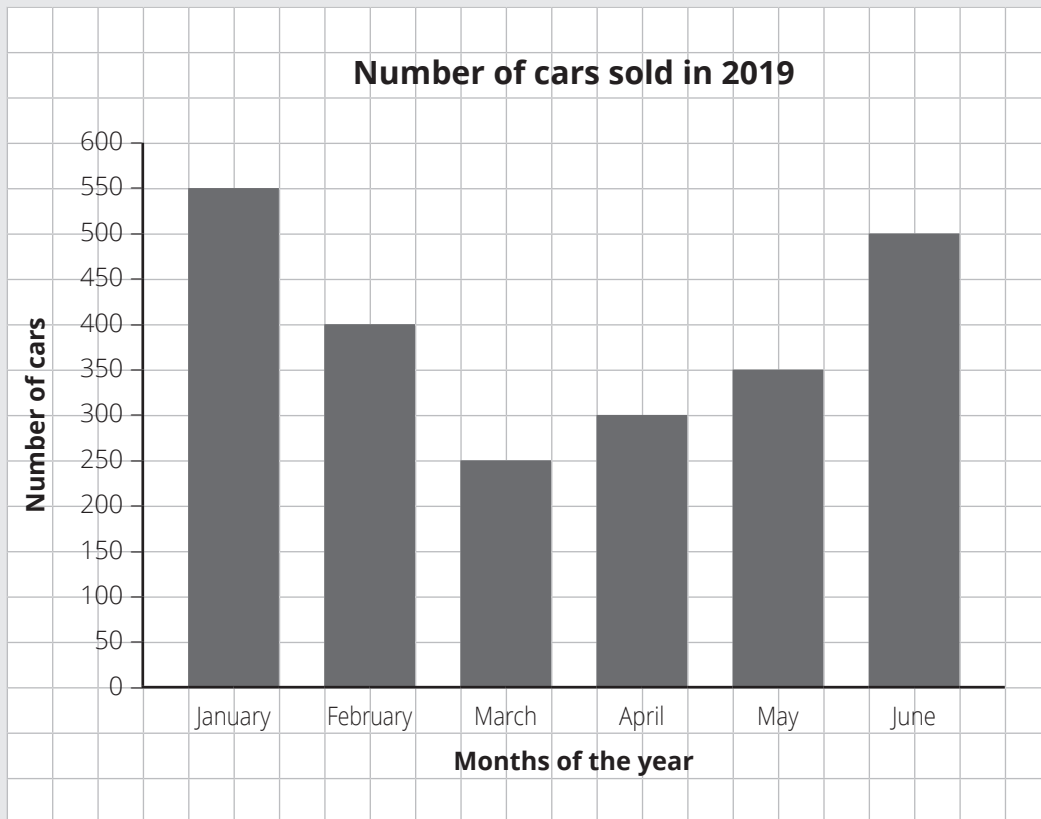
Activity 3

- What is the interval on the vertical axis of the graph? _____
- Fill in the missing numbers on the vertical axis of the graph.
- Complete the bar graph by filling in the missing labels.



HOMEWORK

Use the bar graph as you answer the questions.



1. How many cars were sold in March? _____

2. How many more cars were sold in June than in April?

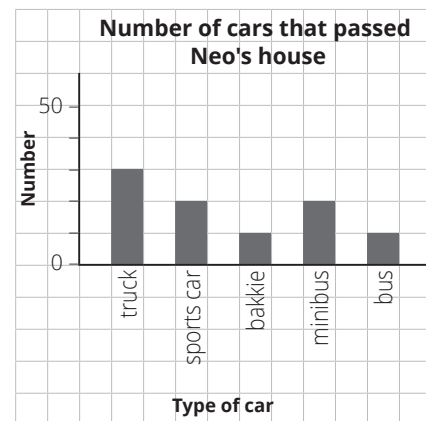
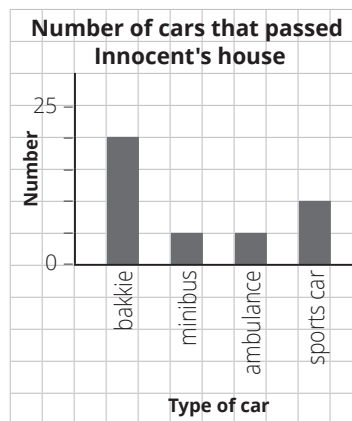
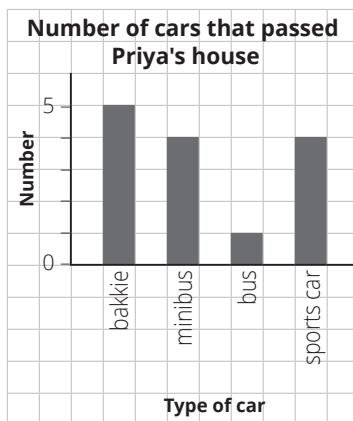
3. How many cars were sold in January and February?

Lesson 28: Intervals on a bar graph (2)

Mental maths

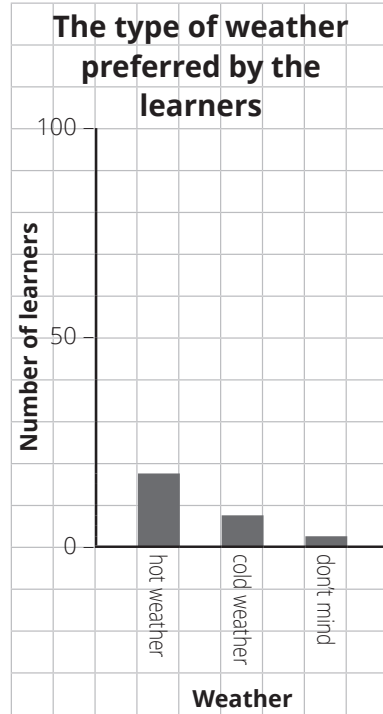
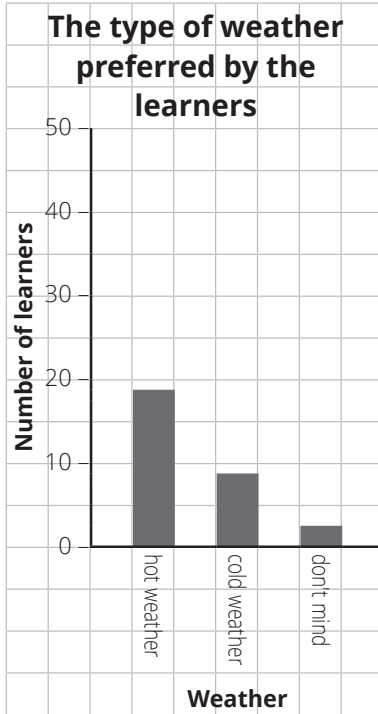
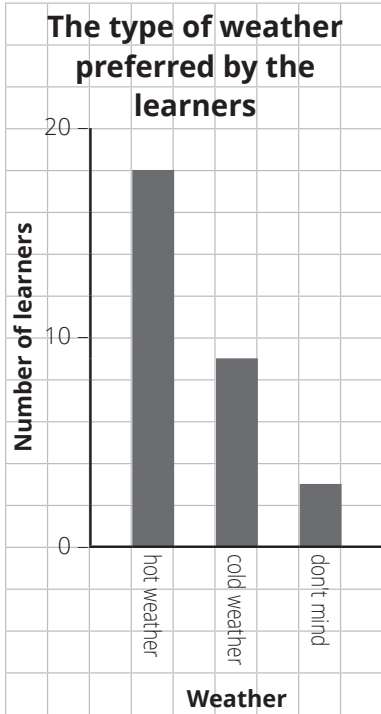
1	Start at 200 and count up in 50s until you reach 550.	
2	Start at 400 and count down in 50s until you reach 0	
3	Start at 350 and count up in 50s until you reach 700.	
4	Start at 750 and count down in 50s until you reach 400	
5	Start at 650 and count up in 50s until you reach 1 000.	
6	Start at 950 and count down in 50s until you reach 600	

Link to previous lesson



Activity 1

Learners' preferred weather



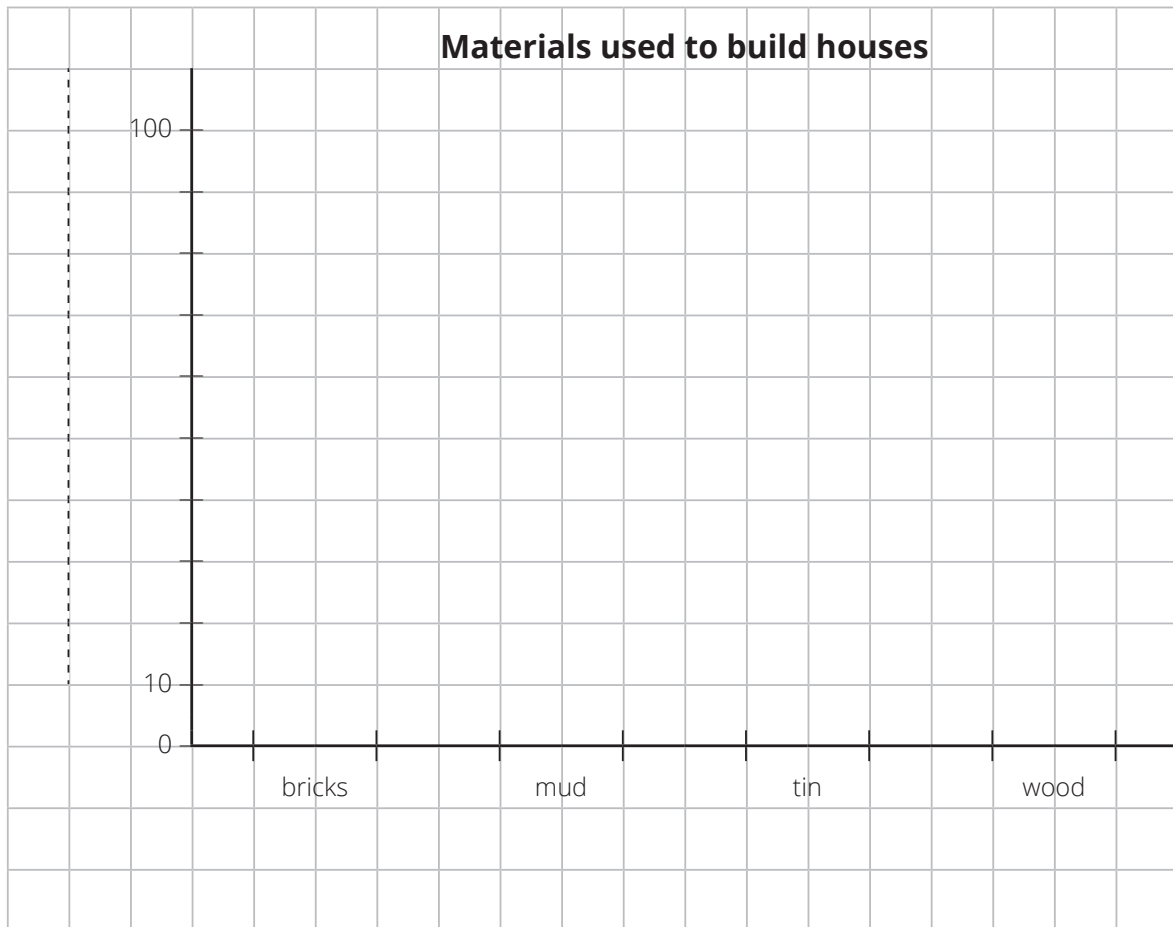
Activity 2

The tallies show the types material used to build houses in an area.

Material	Tallies	Frequency
Bricks	 	
Mud		
Tin		
Wood		

1. Fill in the frequency for each material on the Frequency Table.

2. On the following set of axes:
 - a. Fill in headings on the two axes.
 - b. Fill in the values on the vertical axis.
 - c. Draw the bars.

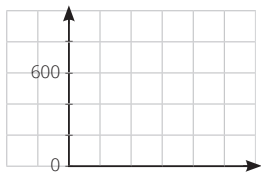
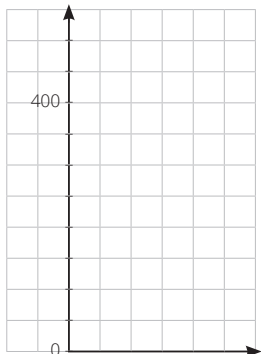
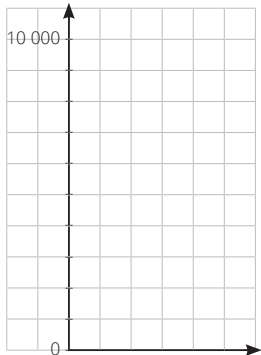
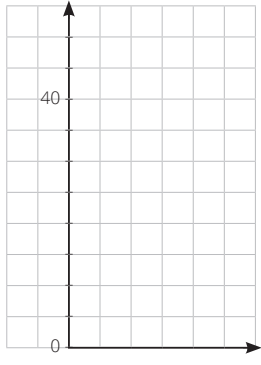


HOMEWORK

Lerato needs to draw four graphs. She gets the axes shown below ready for the graphs.

Find the interval she used for each graph.

Draw a line to match the axes in A with the interval in B.

A Axes	B Intervals
	50
	200
	5
	1 000




Lesson 29: Pictographs (1)

Mental maths


1	Start at 500 and count up in 100s until you reach 1 100	
2	Start at 1 000 and count down in 100s until you reach 400	
3	Start at 7 500 and count up in 100s until you reach 8 000.	
4	Start at 5 700 and count down in 100s until you reach 5 200	
5	Start at 8 600 and count up in 100s until you reach 9 100.	
6	Start at 3 300 and count down in 100s until you reach 2 800	

Link to previous lesson

How learners get to school

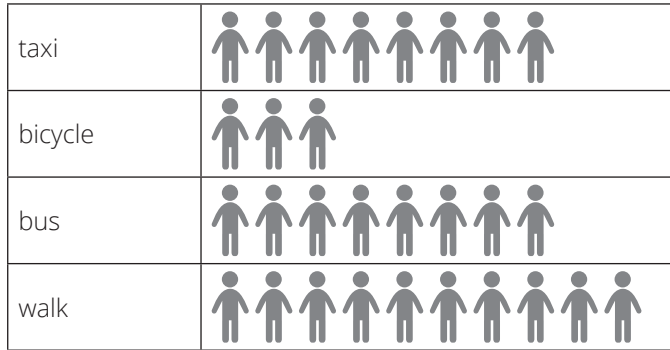
taxi	
bicycle	
bus	
walk	


Key

 represents one learner

Activity 1

How learners get to school



Key
 = 5 learners

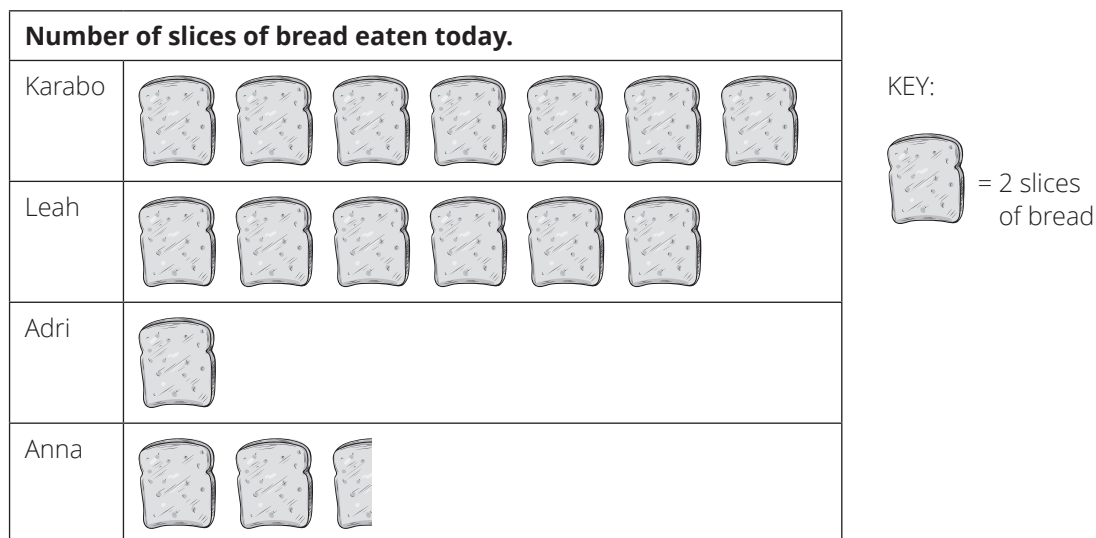
How many learners use the bus to get to school? _____

How many learners walk to school? _____

How many more learners use a taxi than a school bus to get to school?

Activity 2

1. Read the information in the pictograph. Answer the questions.



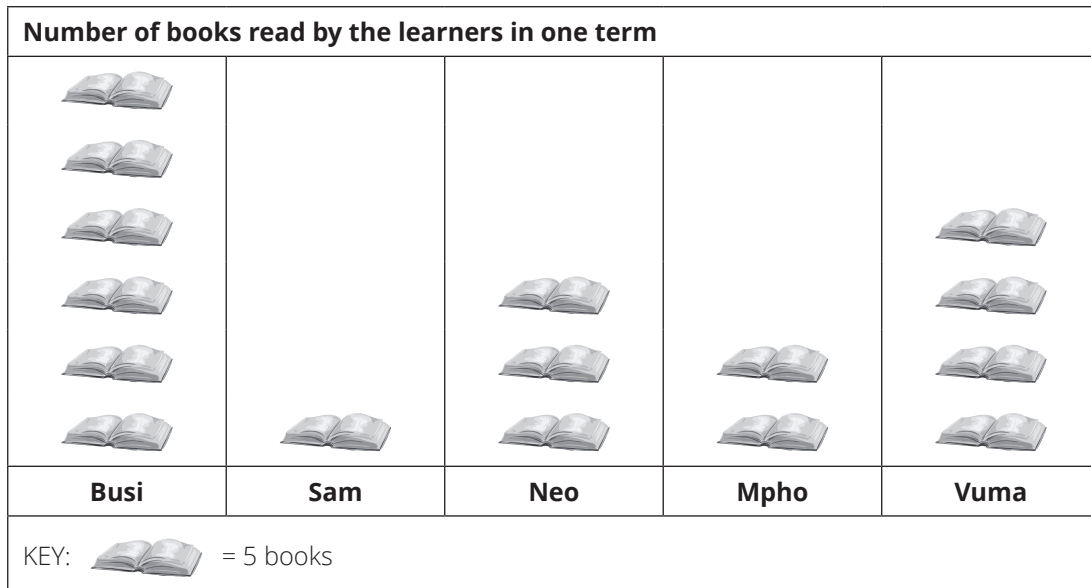
- a. What is the key? _____
- b. How many slices of bread did Karabo eat? _____
- c. How many slices of bread did Adri eat? _____
- d. How many slices of bread did Anna eat? _____
- e. Who ate the most slices of bread? _____
- f. Who ate the least slices of bread? _____
- g. How many more slices of bread did Anna eat than Adri?

- h. How many slices of bread did the children eat altogether?

Lesson 29: Pictographs (1)

2. The pictograph shows the number of books read by five different learners in one term.

Look at the pictograph. Answer the questions.



- a. What is the key? _____
- b. How many learners were surveyed? _____
- c. How many books did Neo read? _____
- d. How many more books did Busi read than Sam?


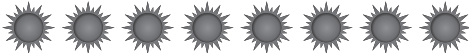
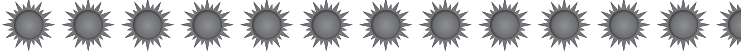

- e. How many books were read altogether by these learners?

Activity 3

1. All pictographs use symbols to show data.

This pictograph shows the number of sunny days each month over December, January and February.

Look at the pictograph. Answer the questions.

Number of sunny days during December, January and February	
December	
January	
February	
KEY:	 = 2 days

a. What is the key? _____

b. How many sunny days were there in December?

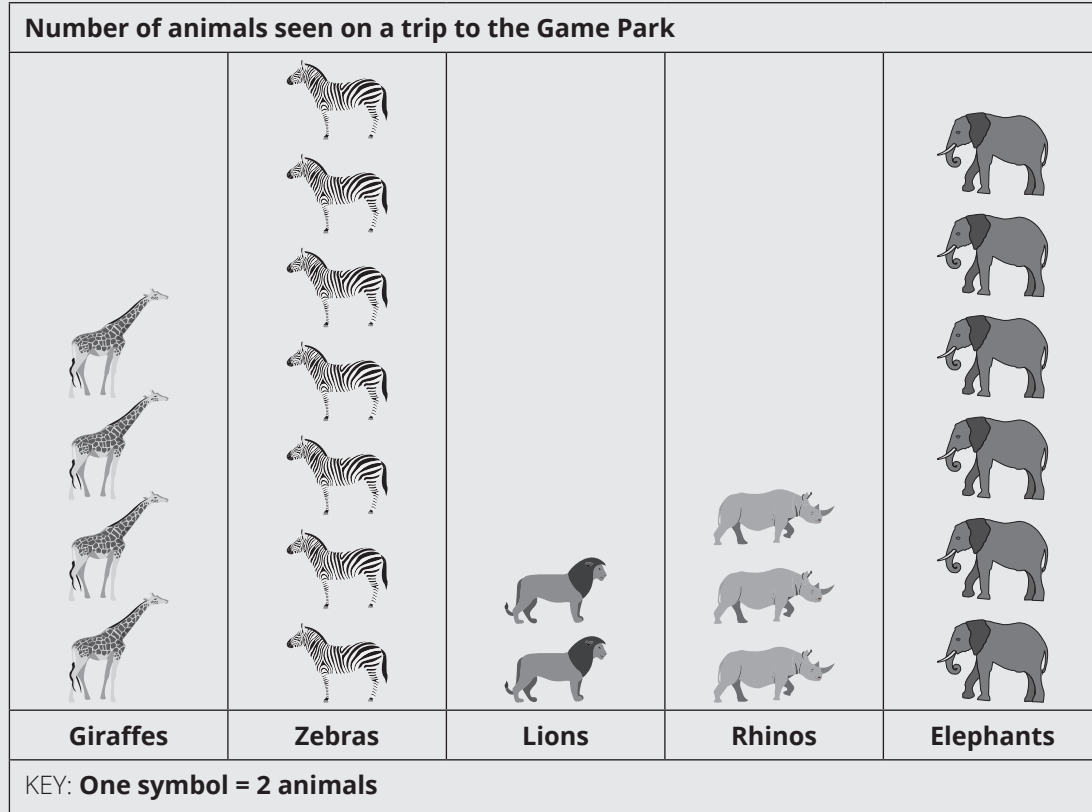
c. How many sunny days were there in January?

d. How many sunny days were there in February?

e. How many fewer sunny days were there in January than in February?

HOMEWORK

Look at the pictograph. Answer the questions.



1. What is the key? _____
2. How many different types of animals did the children see? _____
3. Which animal did they see most of? _____
4. How many zebras did they see? _____
5. Arrange the animals in order from the animals they saw most of to the animal they saw least of.

Lesson 30: Pictographs (2)

Mental maths






1	Start at 1 000 and count up in 200s until you reach 2 000	
2	Start at 9 000 and count down in 200s until you reach 8 000	
3	Start at 4 600 and count up in 200s until you reach 5 600	
4	Start at 5 400 and count down in 200s until you reach 4 400	
5	Start at 6 800 and count up in 200s until you reach 7 800	
6	Start at 1 600 and count down in 200s until you reach 400.	

Activity 1

Mass of fish caught every day during the week			
Day	Mass of fish caught	How many symbols?	KEY:
Day 1	89 kg		
Day 2	103 kg		
Day 3	215 kg		
Day 4	48 kg		
Day 5	156 kg		
Day 6	160 kg		

HOMEWORK

Match the heading of a pictograph with the most suitable symbol for that pictograph.

Pictograph heading	Symbol
Number of fish packed each day	
Number of taxis at the taxi rank	
Number of goals scored in the season	
Number of learners who ride on a bicycle to school	
Number of buses made each year	

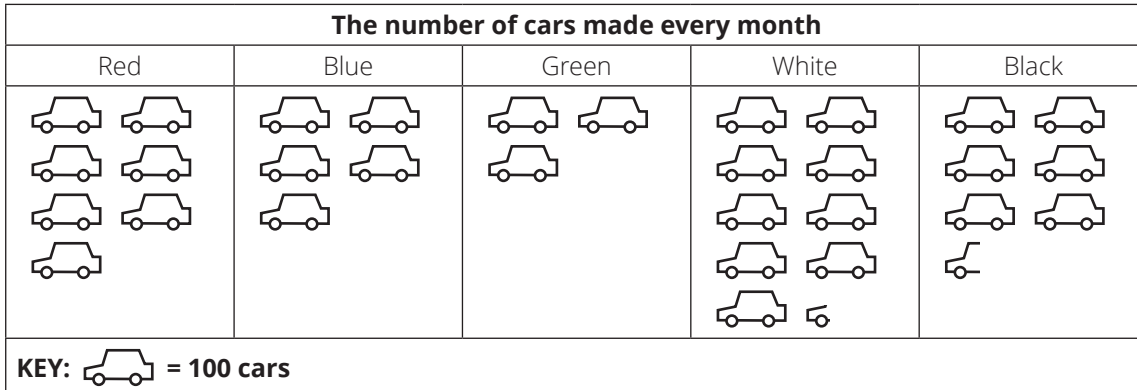
Lesson 31: Pictographs (3)

Mental maths

1	Start at 500 and count up in 500s until you reach 3 000.	
2	Start at 2 500 and count down in 500s until you reach 0.	
3	Start at 5 500 and count up in 500s until you reach 8 000.	
4	Start at 10 000 and count down in 500s until you reach 7 500.	
5	Start at 6 000 and count up in 500s until you reach 8 500.	
6	Start at 4 500 and count down in 500s until you reach 2 000.	

Activity 2

A pictograph was drawn to show the number of cars made every month.



- In the key, how many cars does one symbol represent? _____
- How many different colour cars were made? _____
- How many red cars were made? _____
- How many blue cars were made? _____
- How many green cars were made? _____
- How many white cars were made?

- How many black cars were made?

- Which colour car did they make the second most of? _____

9. Which colour car do you want to have? Why?

Activity 3

The number of people who attended football matches from March to July were recorded in the following table:

Number of people who attended football matches from March to July					
Month	March	April	May	June	July
Frequency	10 000	25 000	45 000	37 000	53 000

A pictograph was drawn of the data.

It was decided to use the symbol  to represent 10 000 people.

1. What does one symbol represent? _____

2. Work out how many balls we would have to draw for each month.

March: 10 000 people _____

April: 25 000 people _____

May: 35 000 people _____

June: 37 000 people _____

July: 53 000 people _____

3. Draw symbols to complete the pictograph

Number of people who attended football matches from March to July				
March	April	May	June	July
KEY:  = 10 000 people				

4. During which month do you think the final was played?
Give a reason for your answer.

HOMEWORK

A key was used to draw a pictograph.



1 Use the key to draw pictures to represent 500 shirts.

2 Use the key to draw pictures to represent 760 shirts.

3 Use the key to draw pictures to represent 410 shirts.

Lesson 32: Pictographs (4)

Mental maths

1	Start at 1 000 and count up in 1 000s until you reach 6 000.	
2	Start at 100 000 and count down in 1 000s until you reach 96 000.	
3	Start at 50 000 and count up in 1 000s until you reach 54 000.	
4	Start at 46 000 and count down in 1 000s until you reach 42 000.	
5	Start at 27 000 and count up in 1 000s until you reach 31 000.	
6	Start at 73 000 and count down in 1 000s until you reach 69 000.	

Activity 1


1. Read the information and then answer the questions.

A survey was carried out to see what kind of lighting was used in households. 19 853 of the households use gas lighting, 10 770 households use candles and 16 208 households use electric lighting.

- a. Complete the frequency table to represent the data.

Source of lighting in households	
Gas	
Candles	
Electricity	
Total	

Lesson 32: Pictographs (4)

- b. Calculate how many symbols will be needed to draw a pictograph if  represents 5 000 households.

Gas _____

Candles _____

Electricity _____

- c. Draw a pictograph to represent the data in the frequency table.

Heading: _____

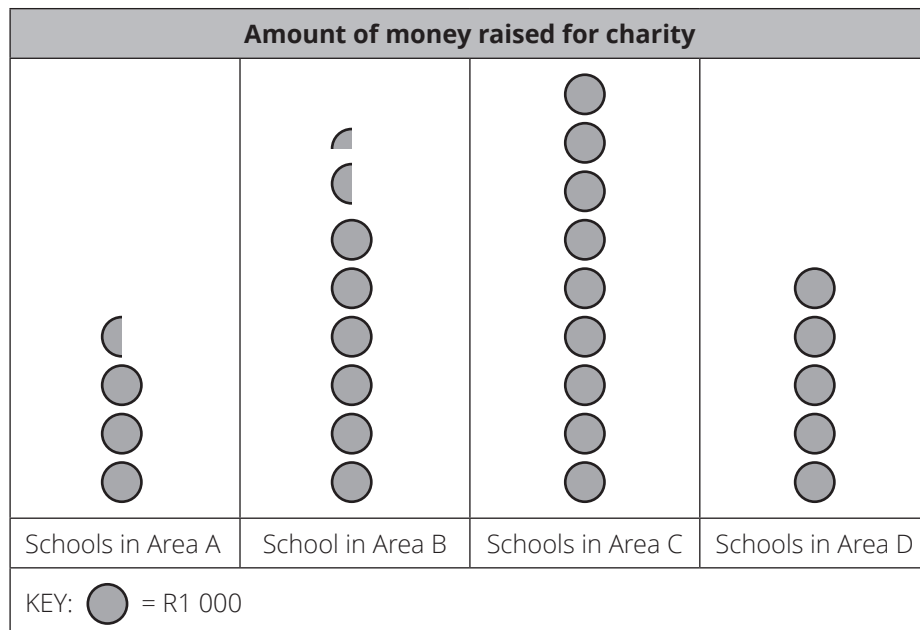
Gas	
Candles	
Electricity	
KEY:  = 5 000 households	

- d. Use the pictograph.

Write one sentence about the sources of lighting used in households.

Activity 2

Study the pictograph below.



1. What is shown on this pictograph?

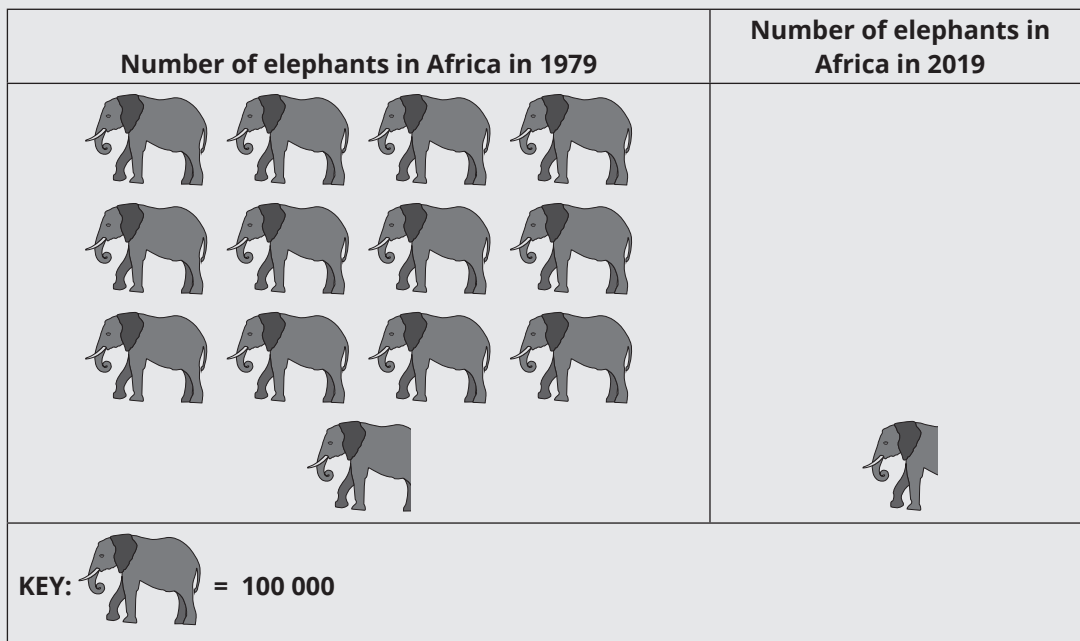
2. What does the key tell us?

3. Which area raised the most money for charity? _____

4. Approximately how much money did the schools in each area raise?

HOMEWORK

Look at the pictograph. It shows the number of elephants in Africa in 1979 and 2019.



Answer the questions.

1. Approximately how many elephants were there in Africa in 1979?

2. Approximately how many elephants were there in Africa in 2019?

3. Why do you think the number of elephants decreased between 1979 and 2019?

Lesson 33: Reading and interpreting graphs (1)

Mental maths

1	Start at 0 and count up in 2 000s until you reach 10 000.	
2	Start at 12 000 and count down in 2 000s until you reach 4 000	
3	Start at 94 000 and count up in 2 000s until you reach 100 000.	
4	Start at 66 000 and count down in 2 000s until you reach 58 000	
5	Start at 38 000 and count up in 2 000s until you reach 46 000	
6	Start at 52 000 and count down in 2 000s until you reach 48 000	

Activity 1

1. Look at the pie chart. Answer the question.

a. Which activity does Maria use most of her

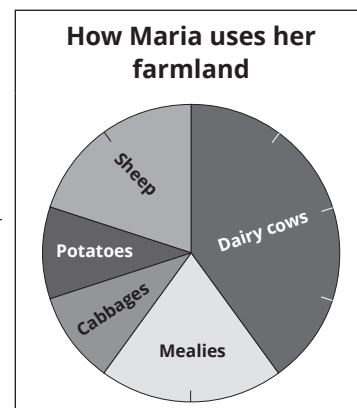
farmland for? _____

b. Which two activities does Maria use least of her farmland for?

c. Into how many equal parts is the circle divided? _____

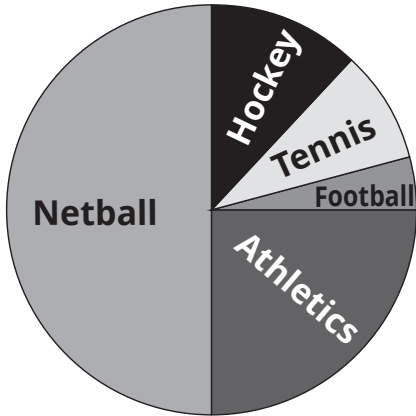
d. What fraction of her farmland does Maria use for growing potatoes?

e. What fraction of her farmland does Maria use for growing mealies?

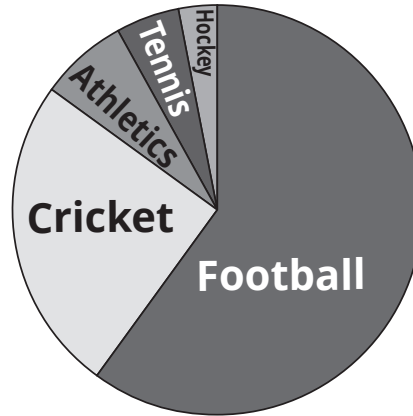


2. Look at the pie charts. Answer the questions.

A. Favourite sports of girls

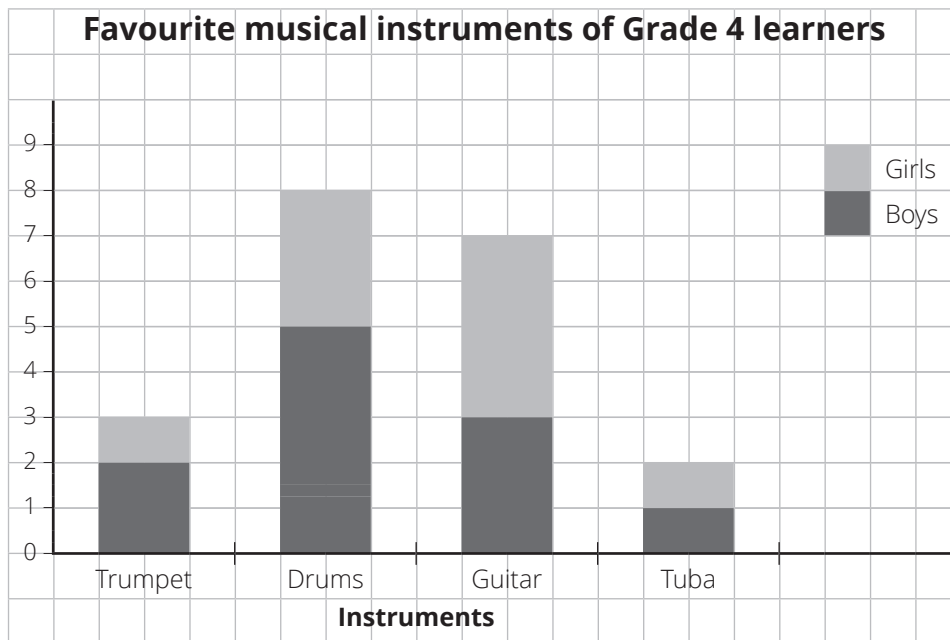


B. Favourite sports of boys



- a. What is shown in Graph A? _____
- b. What sport is shown in Graph B? _____
- c. Which sport is most popular with the girls? _____
- d. Which sport is most popular with the boys? _____
- e. Which sport do half of the girls like? _____
- f. Which sport do more than half the boys like? _____
- g. Which sport is liked by the least boys? _____
- h. What sport is liked by the least girls? _____

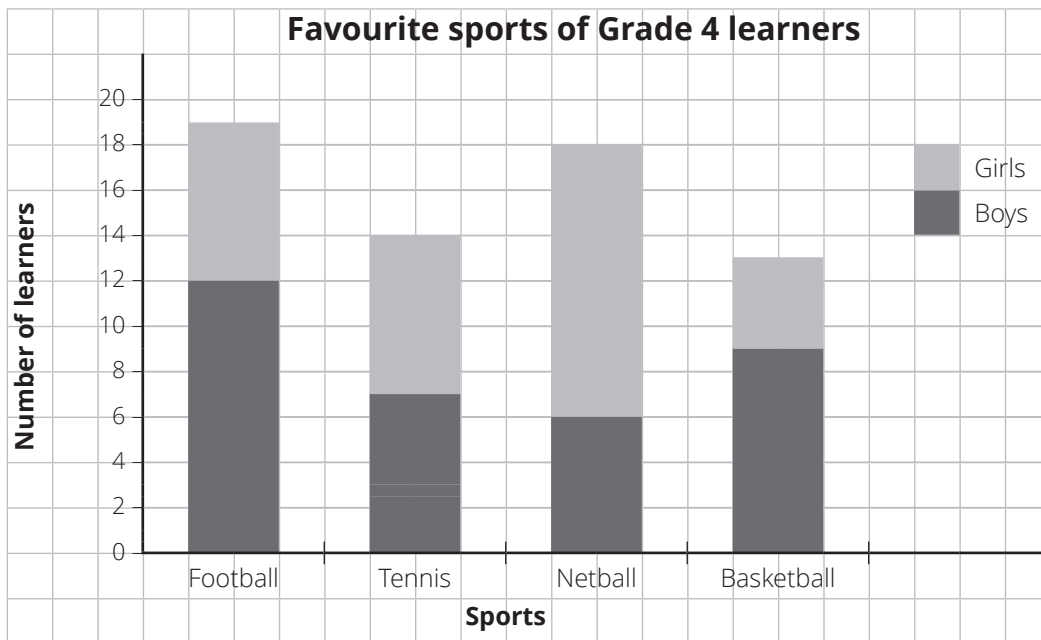
Activity 3



Work with your partner.

Write down three questions to ask the class about the graph.

1. Look at the stacked bar graph. Answer the questions.



- Which is the boys' favourite sport? _____
- Which is the girls' favourite sport? _____
- Which is the favourite sport overall? _____
- Which sport is the favourite of the same number of boys and girls?

- How many children altogether list football as their favourite sport?

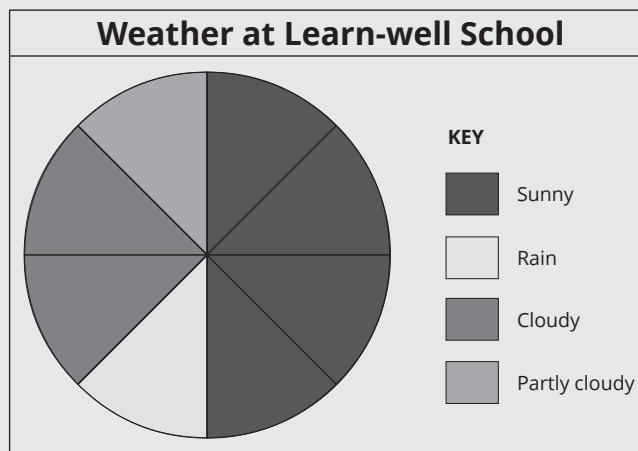
- How many boys and how many girls list football as their favourite sport?

g. Do more boys or girls list basketball as their favourite?

h. Which sport is the favourite of the least number of girls?

HOMEWORK

Look at the pie chart. Answer the questions.



1. What weather condition was most common?

2. What fraction of the time was the weather sunny?

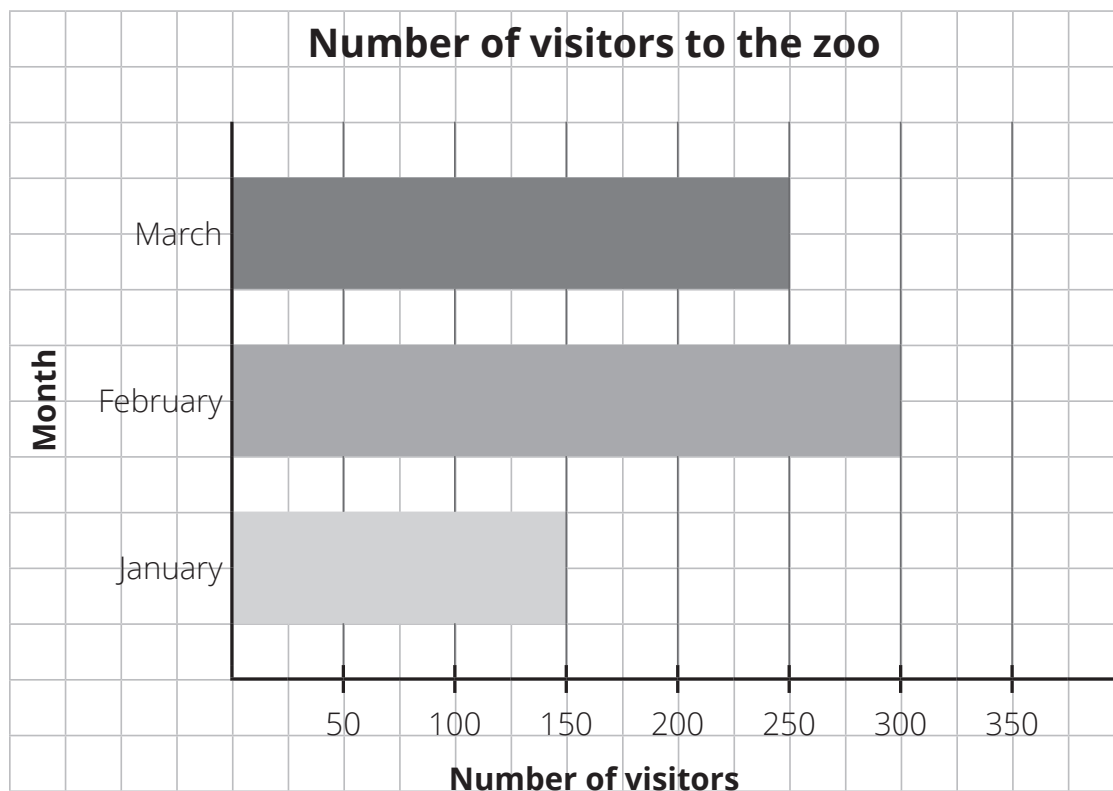
3. What fraction of the time was the weather cloudy?

Lesson 34: Reading and interpreting graphs (2)

Mental maths

1	Start at 0 and count up in 5 000s until you reach 25 000.	
2	Start at 100 000 and count down in 5 000s until you reach 50	
3	Start at 55 000 and count up in 5 000s until you reach 75 000.	
4	Start at 25 000 and count down in 5 000s until you reach 5 000	
5	Start at 65 000 and count up in 5 000s until you reach 45 000.	
6	Start at 40 000 and count down in 5 000s until you reach 20 000	

Activity 1



Use your horizontal bar graph to answer these questions:

1. During which month did the most people visit the zoo?

2. How many people visited the zoo during this month?

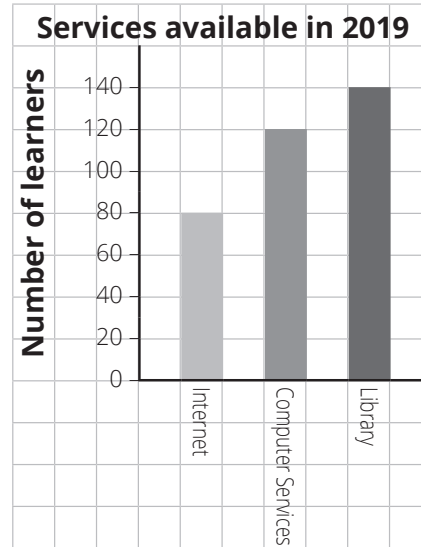
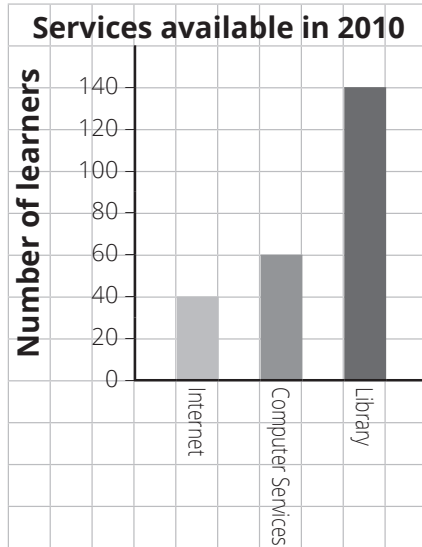
3. During which month did the least people visit the zoo?

4. How many people visited the zoo during this month?

5. Ask: How many more people visited the zoo in February than in March?

Activity 2

These two bar charts show data collected in 2010 and 2019.



1. What data is shown on these two graphs?

2. How many learners had computer services available in 2010?

3. How many learners had computer services available in 2019?

4. How many learners had the internet available in 2010?

5. How many learners had the internet available in 2019?

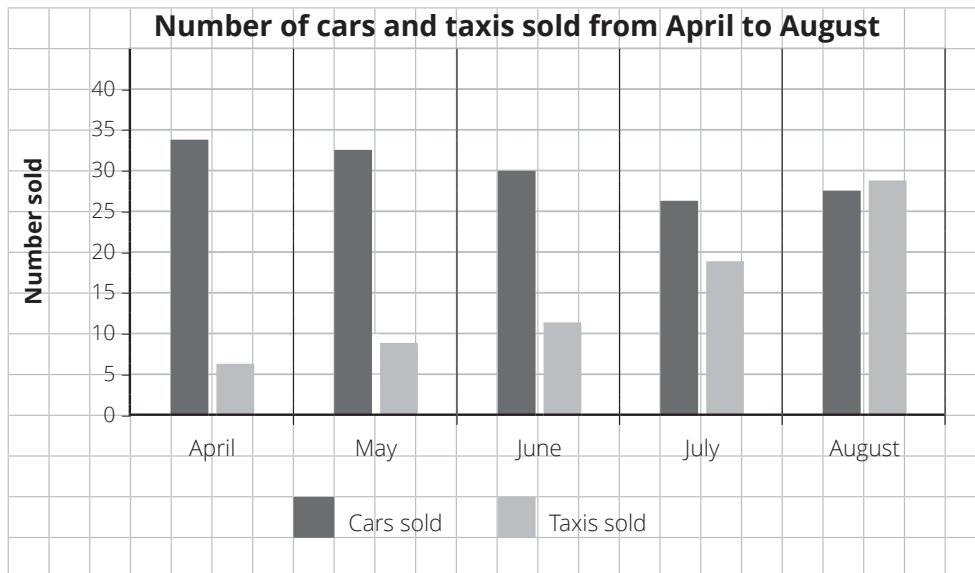
6. Write a sentence about what the graphs tell you about the number of learners who had computers and the internet available in 2010 and 2019.

7. Which service did the same number of learners have available in 2010 and 2019?

8. What changes would you expect to see in the graphs if you collected the same data this year? Why?

Activity 3

This double bar graph shows the number of cars and taxis sold per month from April to August.



1. During which months were more cars sold than taxis?

2. During which month were nearly the same number of cars and taxis sold?

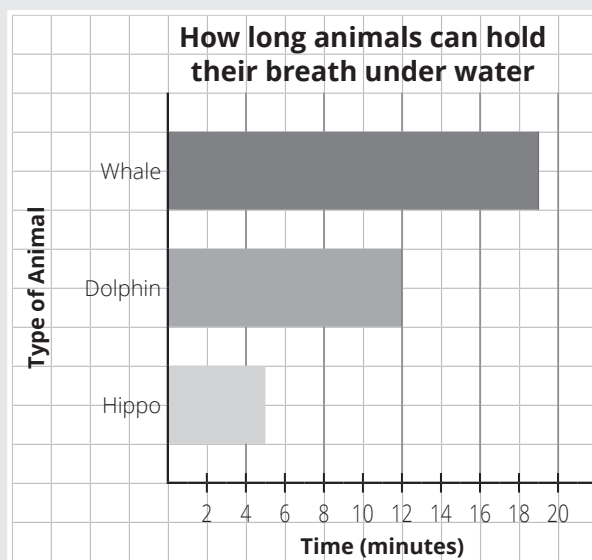
3. Approximately how many cars were sold during the first five months of the year?

4. Approximately how many taxis were sold during these five months?

5. How many more cars than taxis were sold?

HOMEWORK

Use the graph showing how long animals can hold their breath under water. Answer the questions.



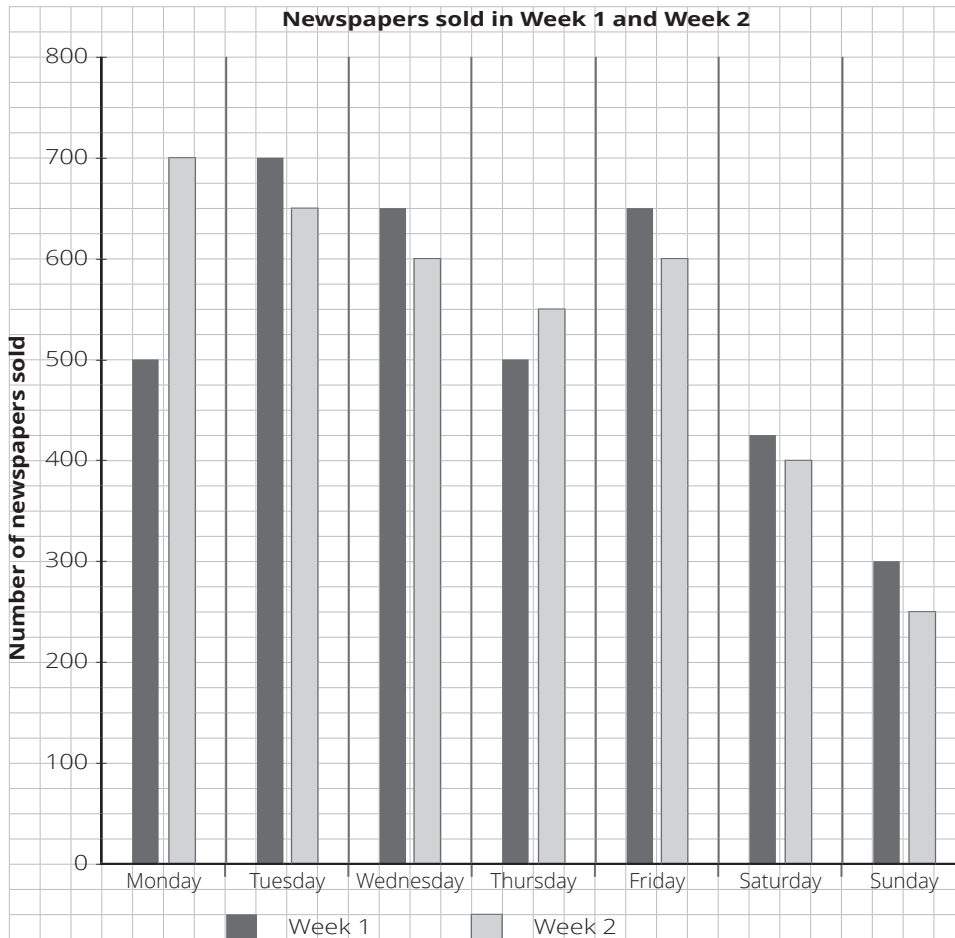
1. Which animal can hold its breath for longest? _____
2. How much longer can a whale hold its breath under water than a hippo?

Lesson 35: The data handling cycle (1)

Mental maths

1	Start at 0 and count up in 10 000s until you reach 40 000.	
2	Start at 60 000 and count down in 10 000s until you reach 30 000.	
3	Start at 660 000 and count up in 10 000s until you reach 690 000.	
4	Start at 440 000 and count down in 10 000s until you reach 410 000.	
5	Start at 280 000 and count up in 10 000s until you reach 310 000.	
6	Start at 920 000 and count down in 10 000s until you reach 890 000.	

Link to previous lesson

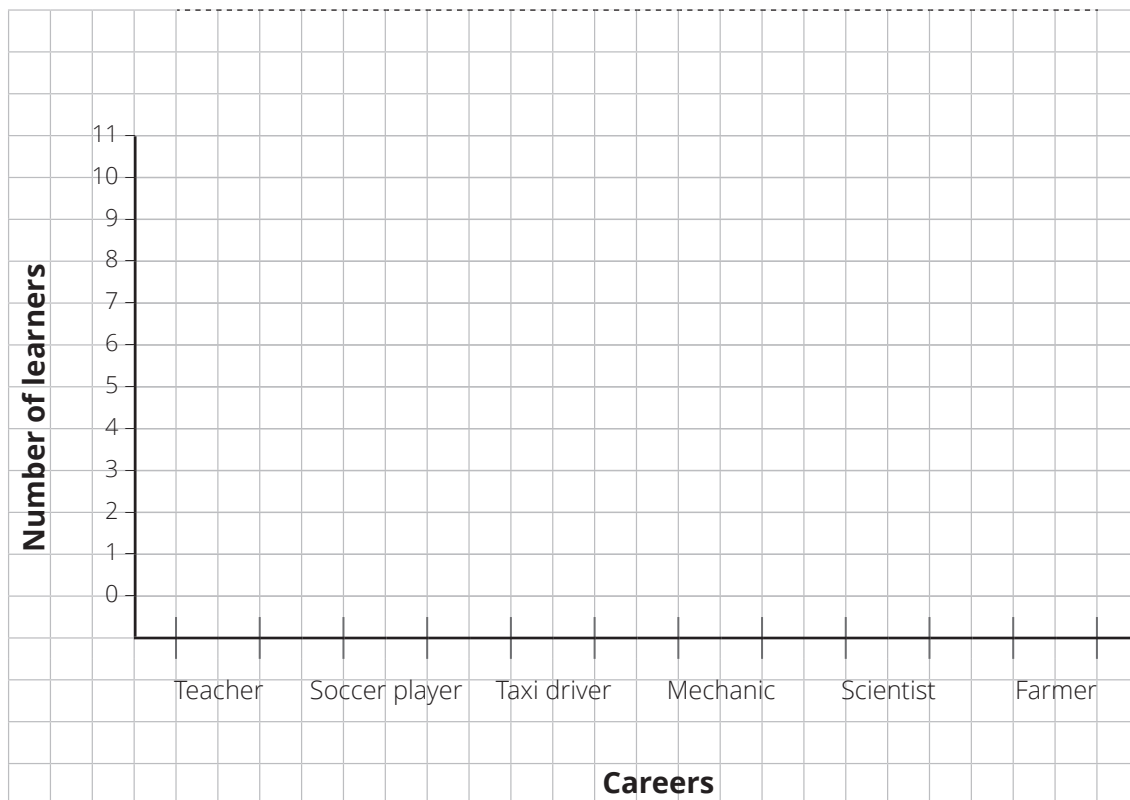


Activity 2

The learners in Grade 4 at the Red School asked the question “What do you want to be when you finish school?” and collected the following data:

Career	Tallies	Frequency
1. Teacher		(10)
2. Soccer player		(5)
3. Taxi driver		(8)
4. Mechanic		(2)
5. Scientist		(7)
6. Farmer		(3)
Total		(35)

1. Complete the frequency column of the table.
2. A bar graph is drawn to represent the data.
 - a. Draw bars on the grid below to represent the data.
 - b. Write the title of the bar graph in the space at the top of the graph.



Lesson 35: The data handling cycle (1)

3 Interpret the data by answering the following questions:

a List the careers in order from most popular to least popular.

b Which career was the most popular? _____

c Which career was least popular? _____

d What is the difference between the most popular career and the least popular career?

4 Report on your findings by recording

a The total number of learners who took part in the survey.

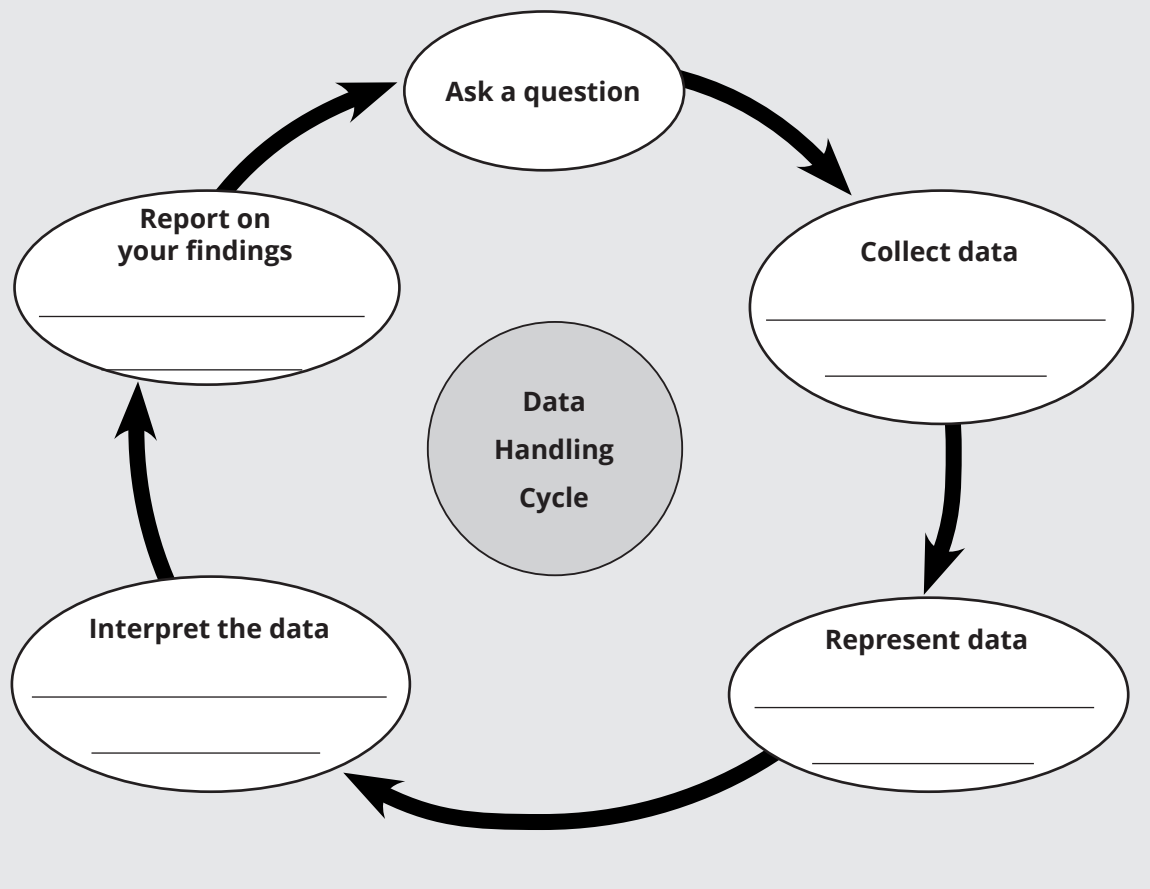
b Which career was most popular, and which one was least popular?

HOMEWORK

The diagram shows the data handling cycle which starts with "Ask a question".

Write the following in the correct place on the data handling cycle.

- Draw a graph
- Write a report
- Use tallies and calculate frequencies
- Ask questions based on the graph



Lesson 36: The data handling cycle (2)

Mental maths

1	Start at 40 000 and count up in 10 000s until you reach 70 000.
2	Start at 180 000 and count down in 10 000s until you reach 150 000.
3	Start at 290 000 and count up in 10 000s until you reach 320 000.
4	Start at 660 000 and count down in 10 000s until you reach 630 000.
5	Start at 880 000 and count up in 10 000s until you reach 910 000.
6	Start at 520 000 and count down in 10 000s until you reach 490 000.

Link to previous lesson

	Tallies	Frequency
Number of girls	 	
Number of boys	 	
Total		

Activity 1

Busi wanted to know how many rhinos were poached in South Africa from 2014 to 2019.

She started off by asking the question “How many rhinos were poached in South Africa from 2014 to 2019?”.

Busi goes through the Data Handling Cycle

1 Ask a question:

Busi asked the question “How many rhinos were poached in South Africa from 2014 to 2019”.

2 Collect data:

Busi researched the question and found information on the internet to help her.

She organised the data on a frequency table like this:

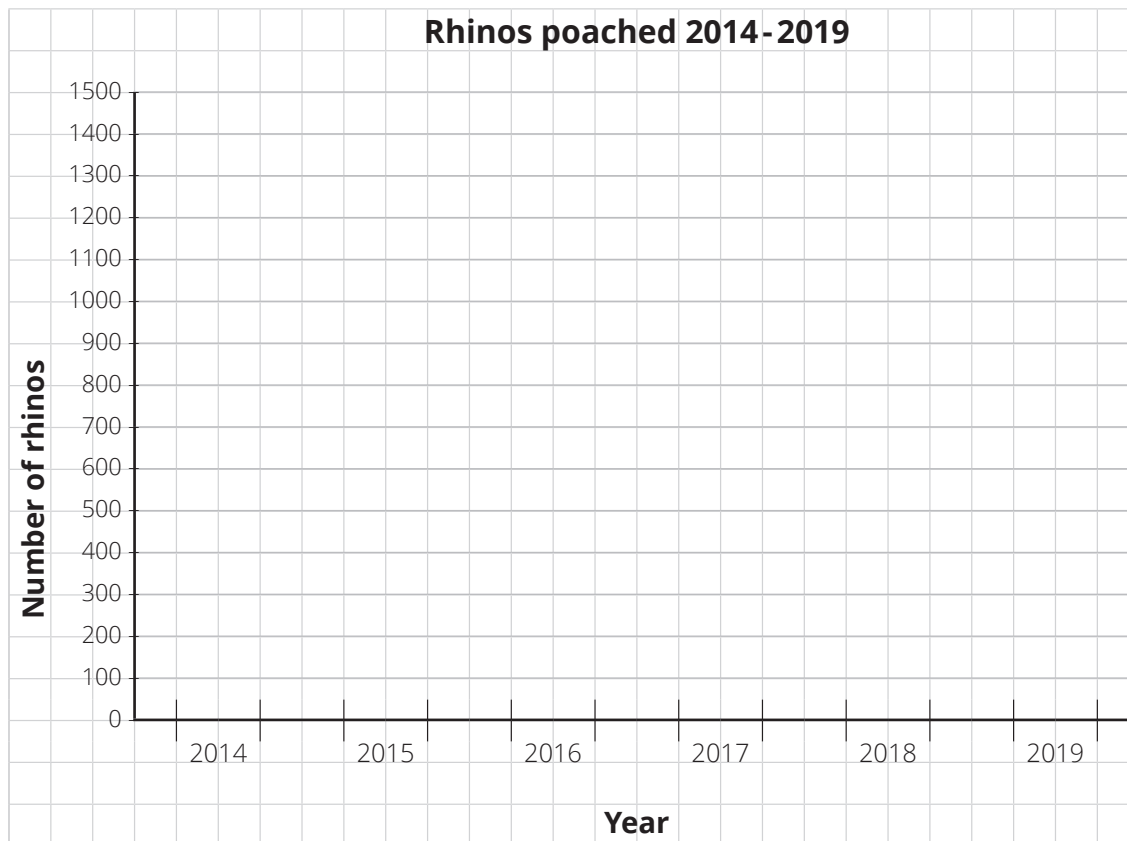
NUMBER OF RHINO'S POACHED	
Year	Number of rhinos
2014	1 300
2015	1 400
2016	1 200
2017	1 100
2018	900
2019	600

<https://www.savetherhino.org/rhino-info/poaching-stats/>

3 Represent data:

Busi decided to draw a bar graph to represent the data.

Draw the bars for each year on this bar graph.



4 Interpret data

- a How many rhinos were poached altogether from 2014 to 2019?

b In which year were the most rhinos poached?

c In which year were the smallest number of rhinos poached?

d What is the difference in the number of rhinos poached in these two years?

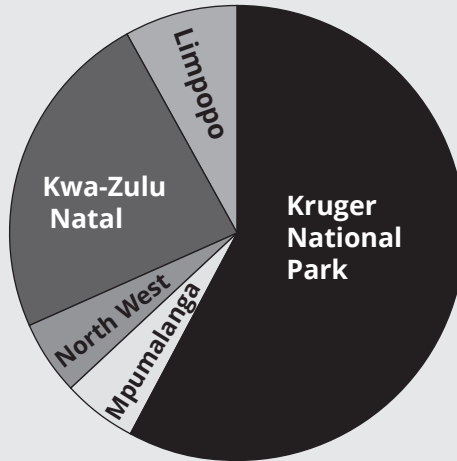
e If you look at the graph, how many rhinos do you think will be poached in 2020?

5 Report on findings.
Write a short paragraph to tell the story about rhino poaching in South Africa between 2014 and 2015.

HOMEWORK

Busi also draw a pie chart to show where the most rhinos were poached in South Africa in 2019.

Where the most rhinos were poached in South Africa in 2019



<https://www.savetherhino.org/rhino-info/poaching-stats/>

Answer these questions about the pie chart:

- 1) Where were the most rhinos poached? _____
- 2) What can you say about the number of rhinos poached in the North West and the number of rhinos poached in Mpumalanga?

- 3) Arrange the areas in order from the area where most rhinos were poached to the area where the least rhinos were poached.

Lesson 37: Consolidation


- 1 Look at the frequency table.

The number of learners who take part in after school activities	
Activity	Frequency
Football	38
Netball	34
Athletics	26
Tennis	14
Choir	39
Extra homework	42
Total	

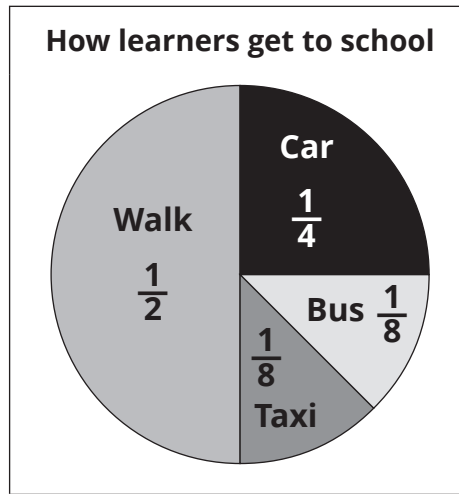
- a What is the total number of learners who took part in after school activities?

- b Draw a pictograph to show the different activities and the number of learners that do each one.

Use the key  = 4 learners

The number of learners who take part in after school activities		
Activity		Frequency
Football		38
Netball		34
Athletics		26
Tennis		14
Choir		39
Extra homework		42
Key  = 4 learners		

2 Look at the pie chart. Answer the questions.



a Are these statements true or false? Put a tick in the correct column.

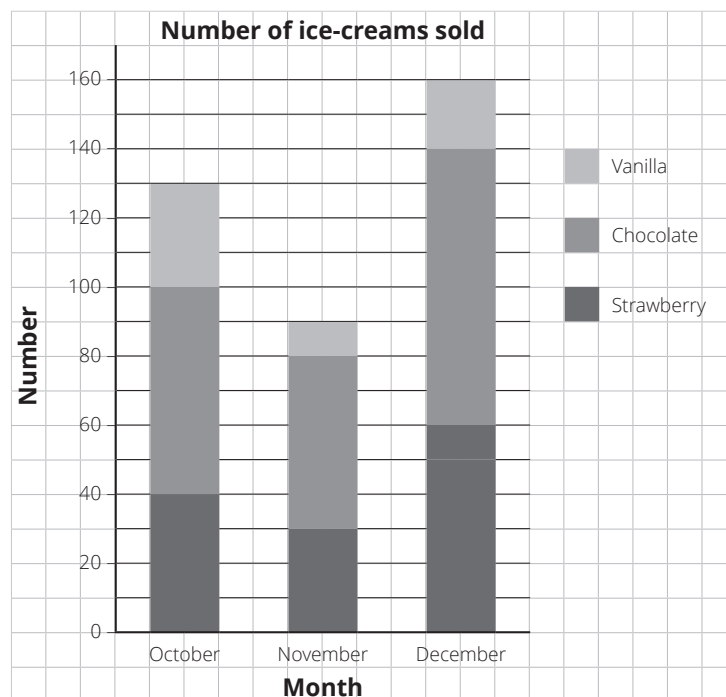
	TRUE	FALSE
This is a stacked bar graph.		
Half the learners walk to school.		
The same number of learners travel by taxi and by bus.		
More learners travel to school by taxi than by car		

b Compare the number of learners that travel to school by bus and by car.

Write two sentences.

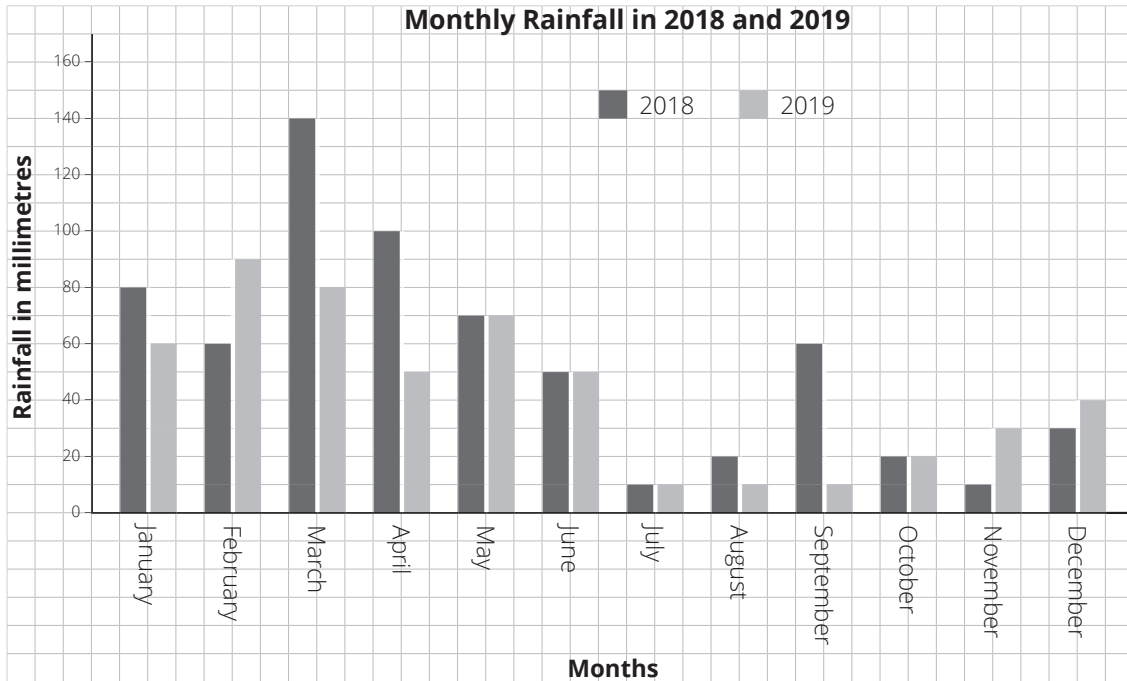
Use fractions in your answer.

3 Look at the bar graph. Answer the questions.



- a. During which month were the least ice-creams sold? _____
- b. Give one reason why more ice-creams were sold in December than in the other two months.
- _____
- _____
- c. Which flavour was the most popular in all three months? _____
- d. About 160 ice-creams were sold in December.
- How many were strawberry ice-creams? _____
- How many were chocolate ice-creams? _____
- How many were vanilla ice-creams? _____

4. Look at the bar graphs. Answer the questions.



a. During which month in 2019 did it rain the most?

b. How much did it rain in March 2019? _____

c. What is the difference in the amount of rainfall received in January 2018 and January 2019?

d. During which five months was the same amount of rainfall received in 2018 and 2019?

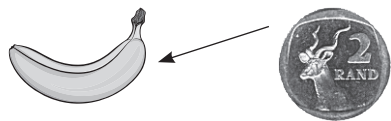
Lesson 38: Finding easy ways to multiply

Mental maths

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

Activity 1

- 1 One banana costs R2.

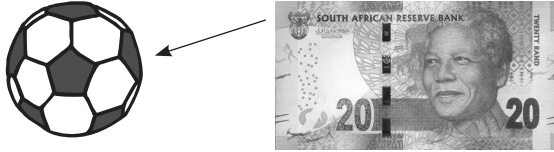


- a. How much will 3 bananas cost?
Write the number sentence and find the answer.

- b. How much will 5 bananas cost?
Write the number sentence and find the answer

Lesson 38: Finding easy ways to multiply

2. One ball costs R20.



- a. How much will 3 balls cost?
Write the number sentence and find the answer.

- b. How much will 5 balls cost?
Write the number sentence and find the answer.

3. One jersey costs R200.

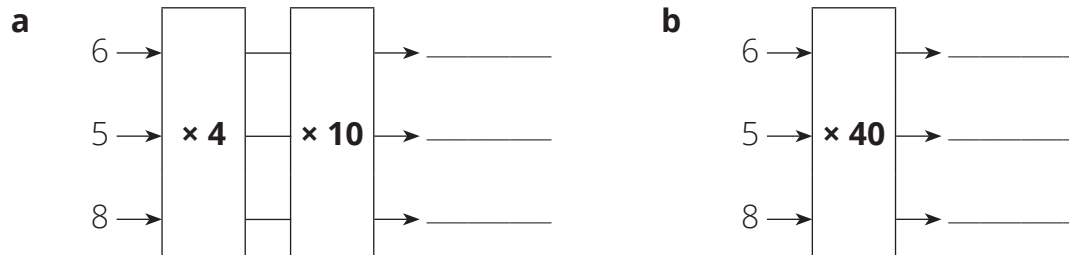


- a. How much will 3 jerseys cost?
Write the number sentence and find the answer

- b. How much will 5 jerseys cost?
Write the number sentence and find the answer

Activity 2

1. Write the missing output numbers on the flow diagrams.

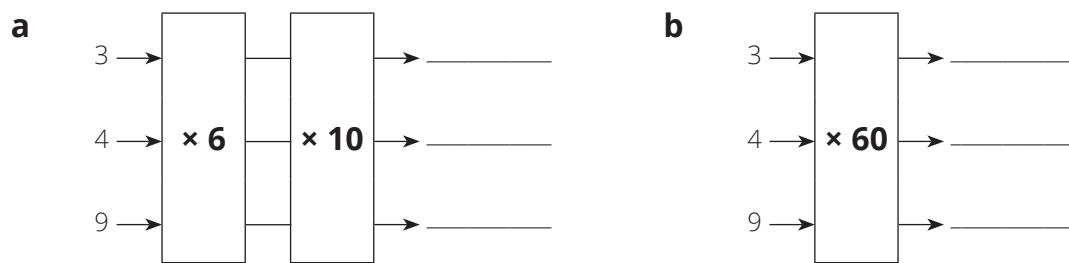


2 a What do you notice about the answers in **a** and **b**? _____

b Why? _____

3 Do you think the flow diagrams **a** and **b** below will give you the same answers?

Check by writing the answers for each flow diagram.



4 Is multiplying by 6 and then multiplying by 10 the same as multiplying by 60 which is 6×10 ?

HOMEWORK

Complete the times table grid

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

Lesson 39: Breaking down numbers to multiply

Mental maths

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

Link to previous lesson

Complete the table.

Number	1	2	3	4	5		7	8		10
$\times 7$		14				42			63	

Activity 2

Use lines and dots to stand for Tens and Ones

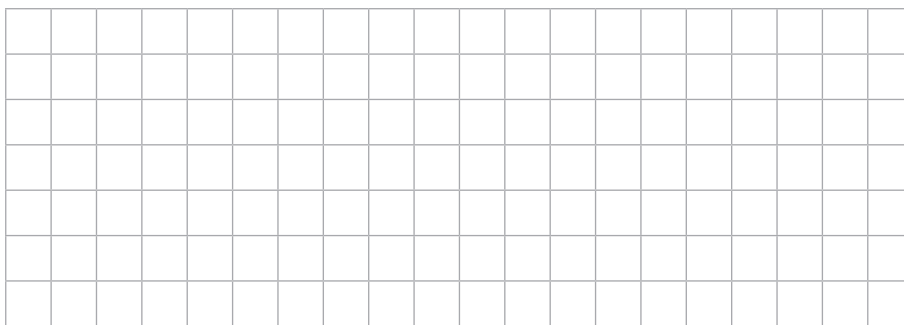
- Calculate $3 \times 14 = \square$. Draw lines and dots to show how you get your answer.

Lesson 39: Breaking down numbers to multiply

2 Calculate $4 \times 19 = \square$. Draw lines and dots to show how you get your answer.



3 Calculate $5 \times 13 = \square$. Draw lines and dots to show how you get your answer.



Activity 3

1 Calculate $6 \times 11 = \square$.

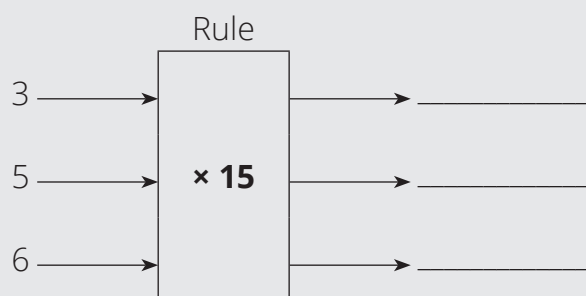
2 Calculate $8 \times 12 = \square$.

3 Calculate $7 \times 13 = \square$.

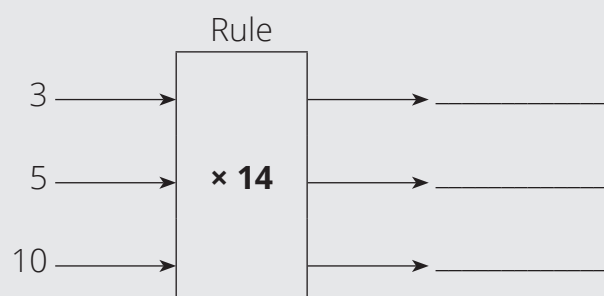
HOMEWORK

Complete the flow diagrams.

1



2



Lesson 40: Using the column method to multiply (1)

Mental maths

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

Link to previous lesson

Complete the table.

Number	1	2		4	5	6	7		9	
$\times 10$			30					80		100

Activity 2

Use the column method to calculate the answers:

1 $12 \times 3 = \square$

	T	O

2 $24 \times 2 = \square$

	T	O

Lesson 40: Using the column method to multiply (1)

3 $20 \times 4 = \square$

	T	O

4 $43 \times 2 = \square$

	T	O

5 $32 \times 3 = \square$

	T	O

6 $40 \times 2 = \square$

	T	O

HOMEWORK

Use the column method to calculate the answers:

1 $23 \times 3 = \square$

		T	O

2 $34 \times 2 = \square$

		T	O

3 $30 \times 3 = \square$

		T	O

4 $42 \times 2 = \square$

		T	O

Lesson 41: Using the column method to multiply (2)

Mental maths

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

Activity 2

Use the column method to calculate the following:

1 $48 \times 2 = \square$

	T	O

2 $24 \times 3 = \square$

	T	O

3 $26 \times 3 = \square$

	T	O

4 $29 \times 2 = \square$

	T	O

Activity 3

Use the column method to calculate the following:

1 $15 \times 3 = \square$

	T	O

2 $38 \times 2 = \square$

	T	O

3 $13 \times 5 = \square$

	T	O

4 $23 \times 4 = \square$

	T	O

HOMEWORK

Use the column method to calculate the following:

1 $12 \times 7 = \square$

		T	O

2 $16 \times 3 = \square$

		T	O

3 $25 \times 3 = \square$

		T	O

Lesson 42: Using the column method to multiply (3)

Mental maths

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

Activity 2

Use the column method to calculate:

1 $42 \times 3 = \square$

2 $54 \times 2 = \square$

3 $41 \times 9 = \square$

4 $60 \times 6 = \square$

Activity 3

Use the column method to calculate the following:

1

	H	T	O
		4	1
x			1
<hr/>			

2

	H	T	O
		4	1
x			2
<hr/>			

3

	H	T	O
		4	1
x			3
<hr/>			

4

	H	T	O
		4	1
x			4
<hr/>			

5

	H	T	O
		4	1
x			5
<hr/>			

6

	H	T	O
		4	1
x			6
<hr/>			

Lesson 42: Using the column method to multiply (3)

7

	H	T	O
		4	1
x			7
<hr/>			

8

	H	T	O
		4	1
x			8
<hr/>			

9

	H	T	O
		4	1
x			9
<hr/>			

HOMEWORK

Write the number sentences. The answer to **c** has been done for you as an example.

a _____

f _____ **b** _____

50

e _____ **c** $50 \times 8 = 400$ _____

d _____

Lesson 43: Using the column method to multiply (4)

Mental maths

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

Activity 2

1

	H	T	O
		8	6
\times			5
<hr/>			

2

	H	T	O
		5	4
\times			9
<hr/>			

3

	H	T	O
		6	8
\times			3
<hr/>			

4

	H	T	O
		3	9
\times			8
<hr/>			

Activity 3

1 One box of cereal costs R75. How much will eight boxes cost?

a Write the number sentence: _____

b Do the calculation. Use the column method.

c Answer: _____

2 How much will nine pairs of socks cost if one pair of socks costs R49?

a Write the number sentence: _____

b Do the calculation. Use any method.

c Answer: _____

3 There are 24 hours in a day. How many hours are there in a week?

a Write the number sentence: _____

b Do the calculation. Use any method.

c Answer: _____

HOMEWORK

Complete the multiplication table:

×	5	8	7	4	1	9	2	6	3
10									
40									
60									
90									
30									
70									
0									

Lesson 44: Consolidation

1 Complete the table.

Number	2	7	5	1	0	10	50	100
$\times 5$								

2 Enter the numerals 1 to 9 in the place of \square . Do the nine calculations.

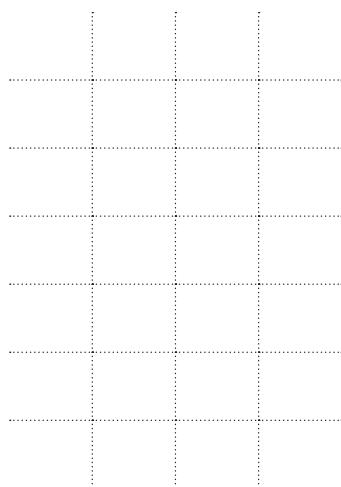
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Lesson 44: Consolidation

3 A small bus can transport 28 people.
How many people can be transported in 6 small buses?

a Write the number sentence. _____

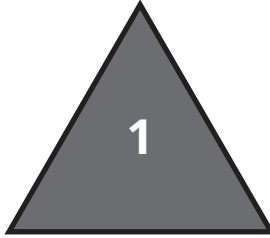
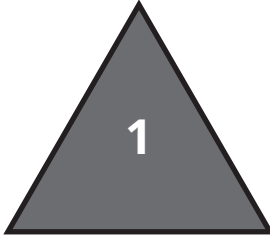
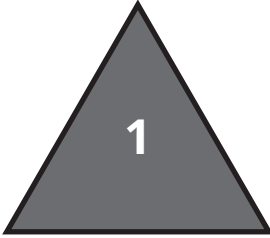
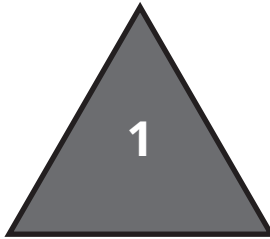
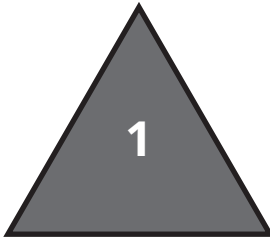
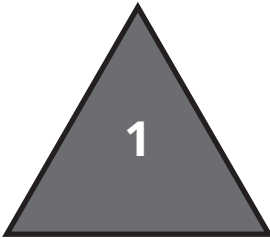
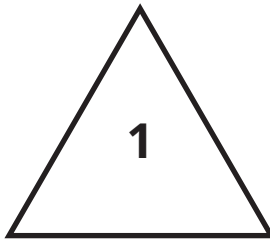
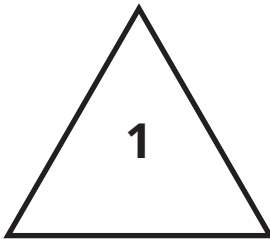
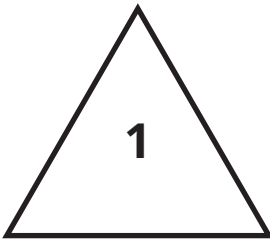
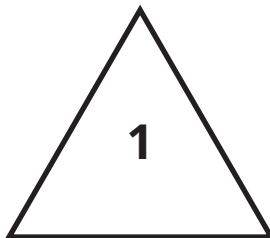
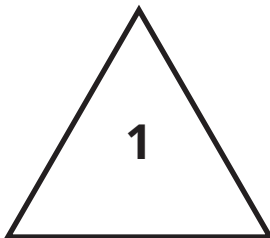
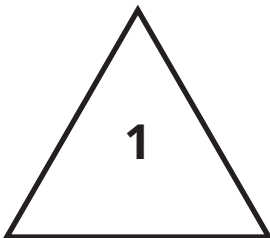
b Do the calculation. Use any method.



c Answer: _____

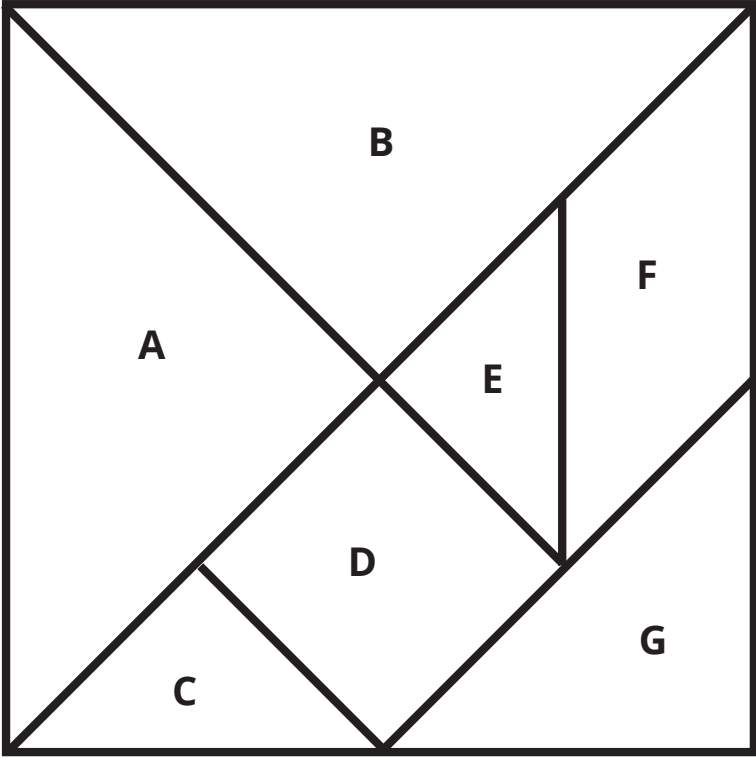
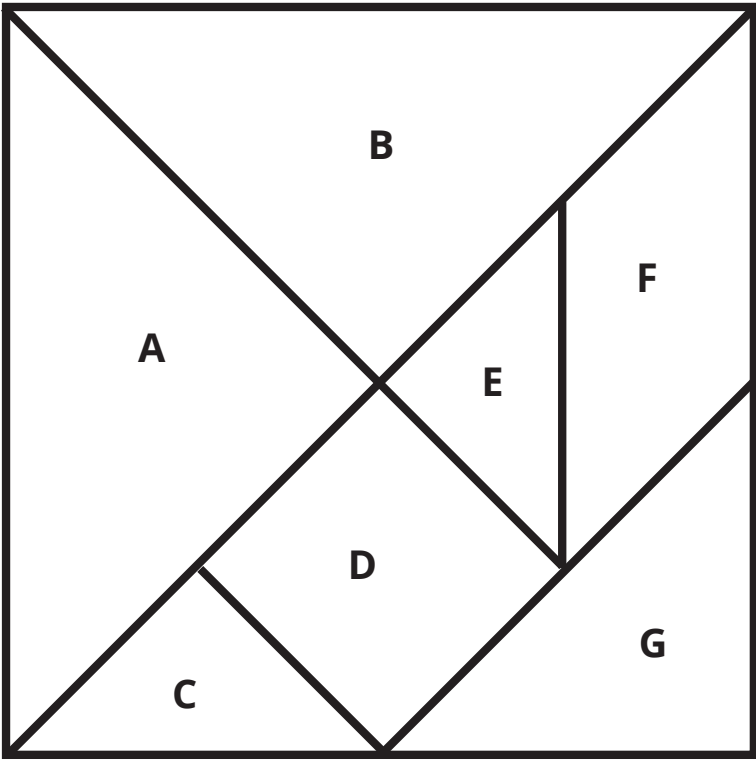
RESOURCES

Lesson 9: Tessellations



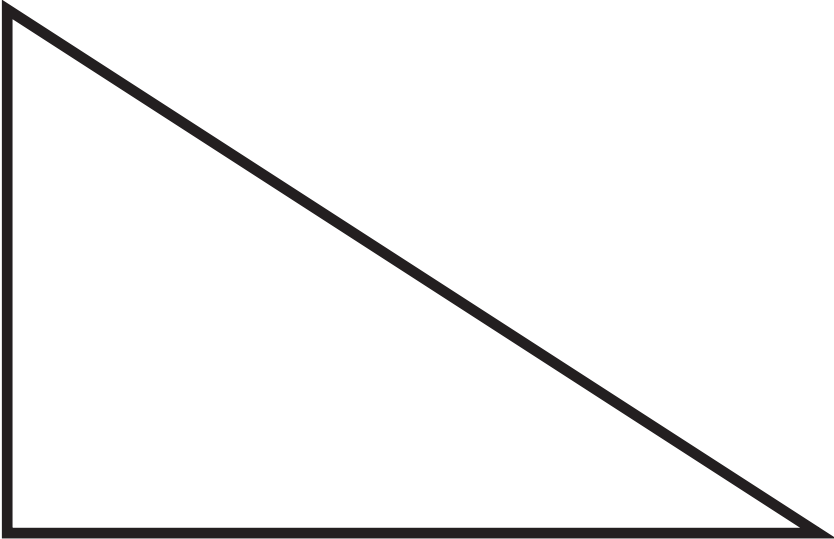
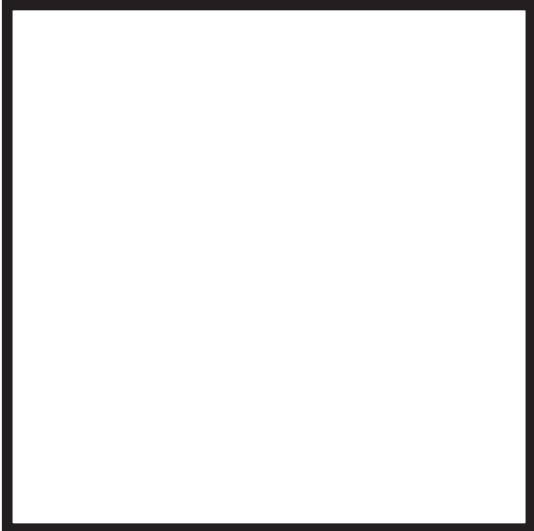


Lesson 6: Consolidation



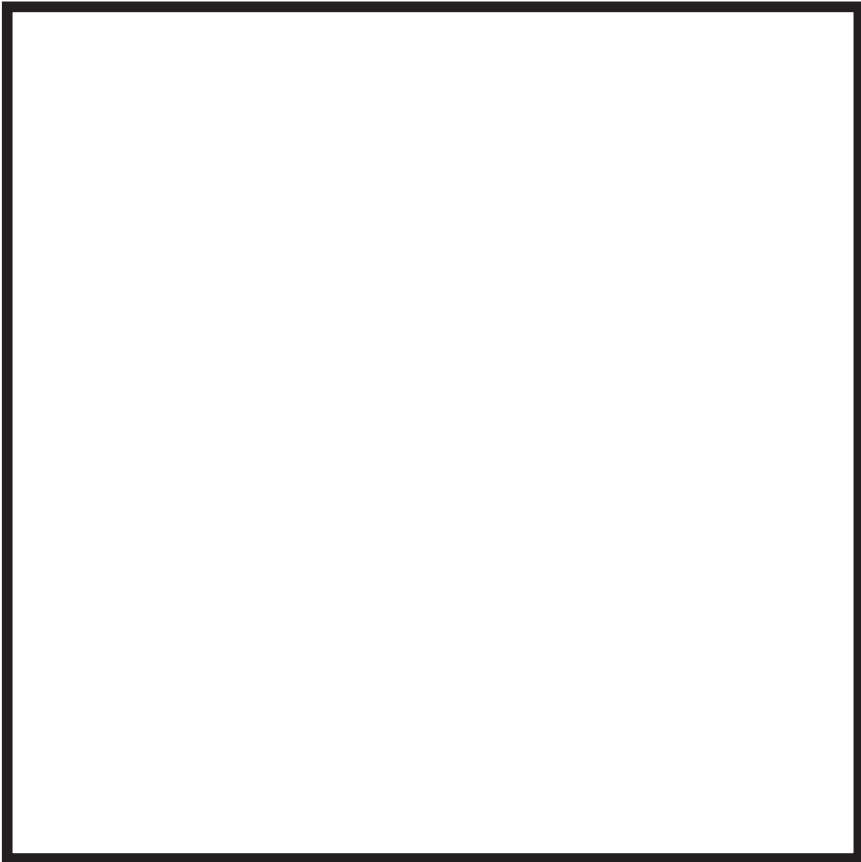


Lesson 5: Squares, rectangles and right-angled triangles





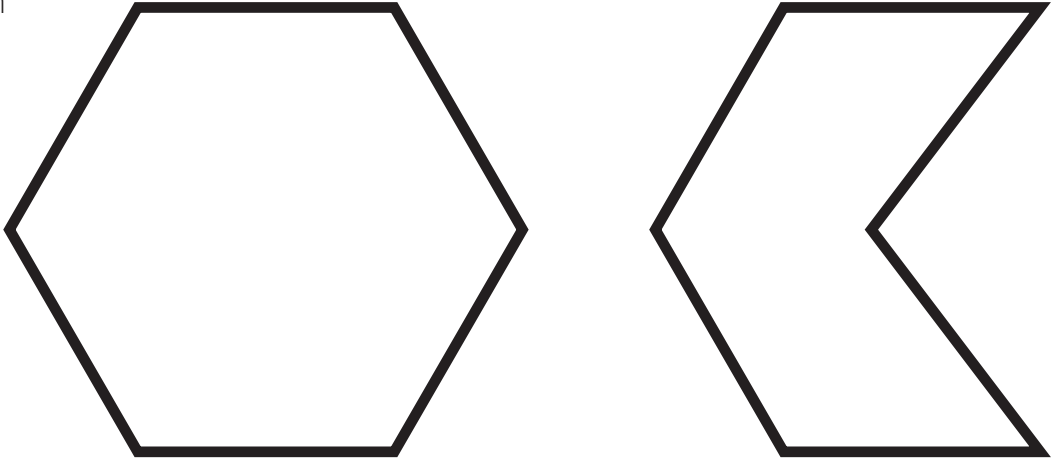
Lesson 4: Right-angled triangles





Lesson 2: Polygons and circles

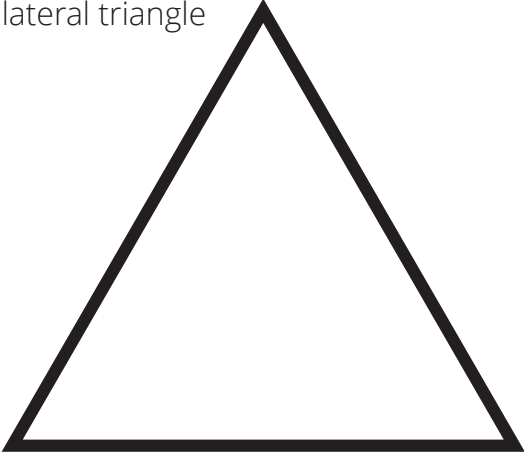
Hexagon



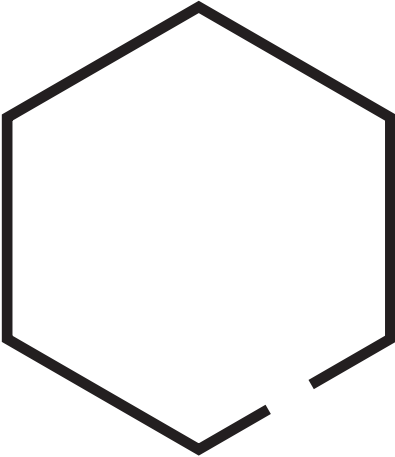
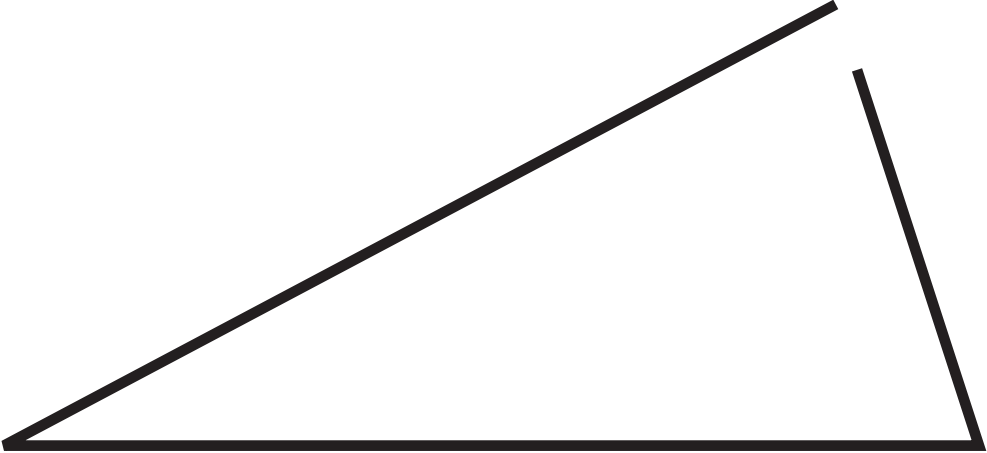
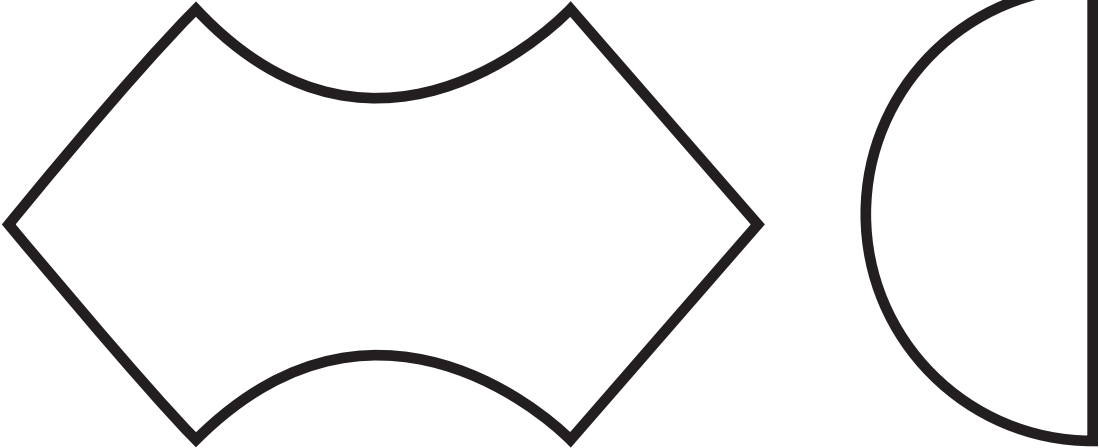
Pentagon



Equilateral triangle

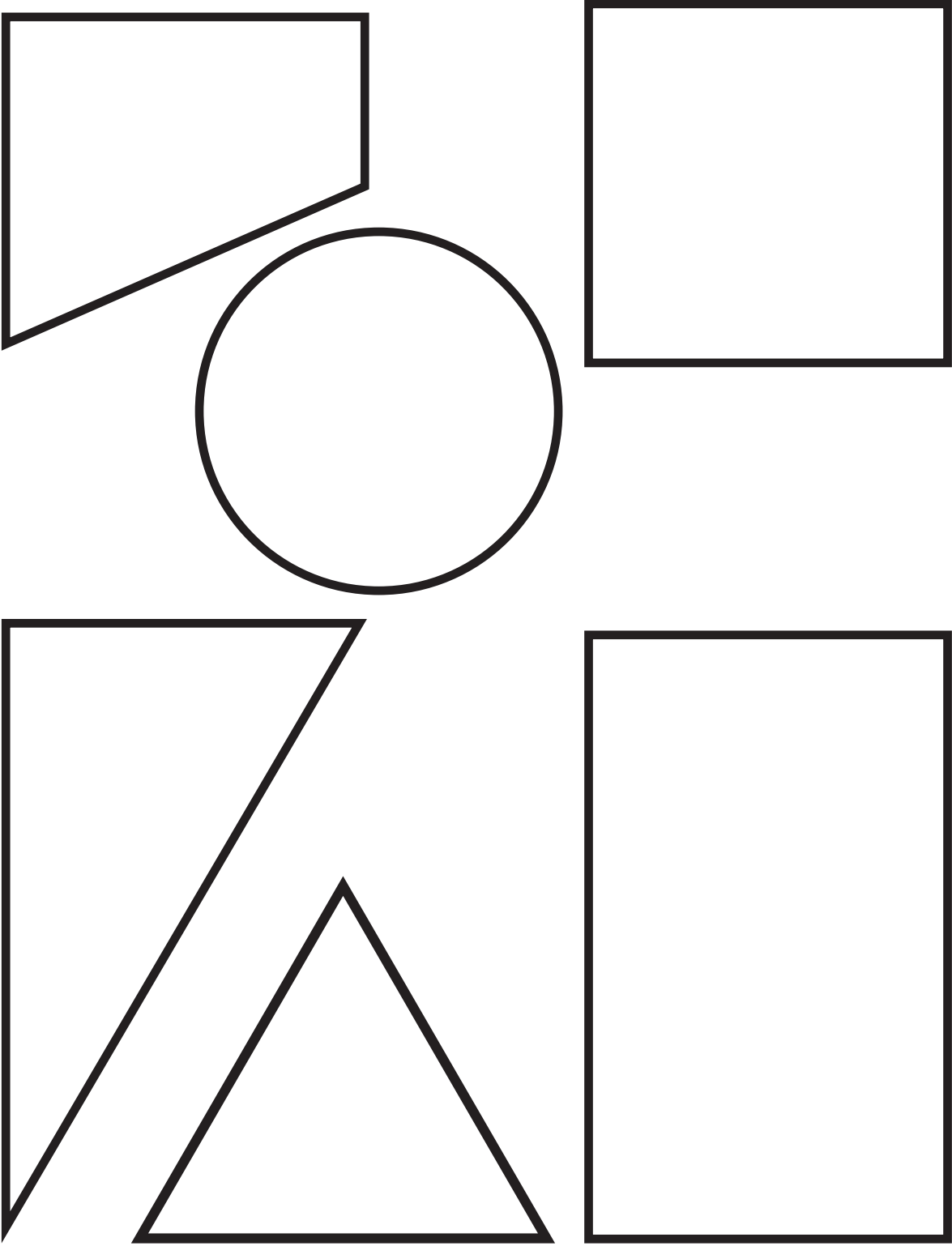






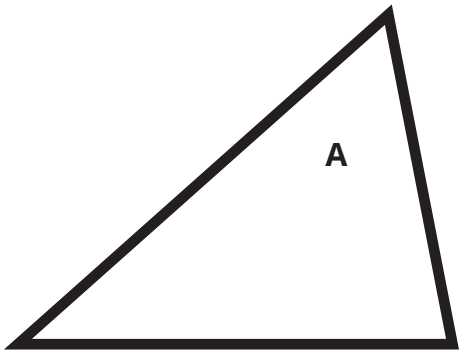


Lesson 1: Properties of 2-D shapes (square, rectangle, circle and triangle)

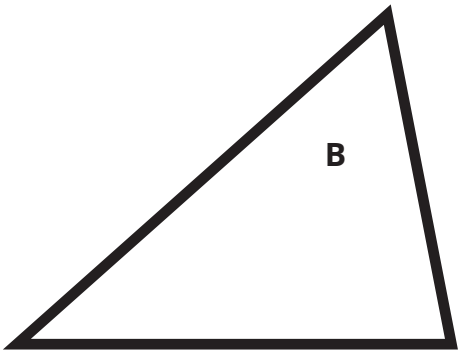




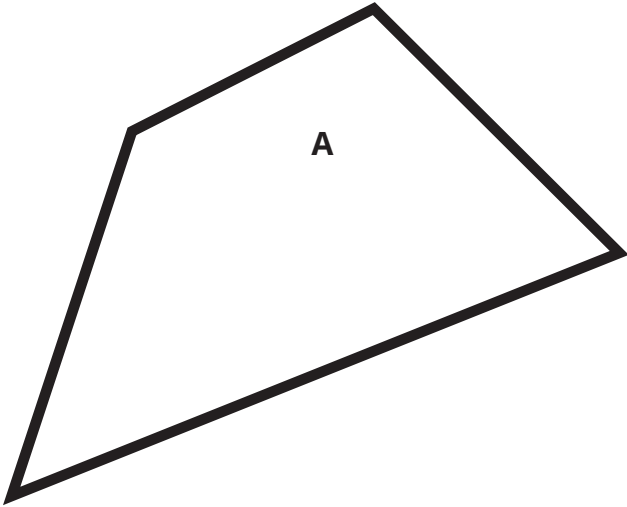
Triangle A



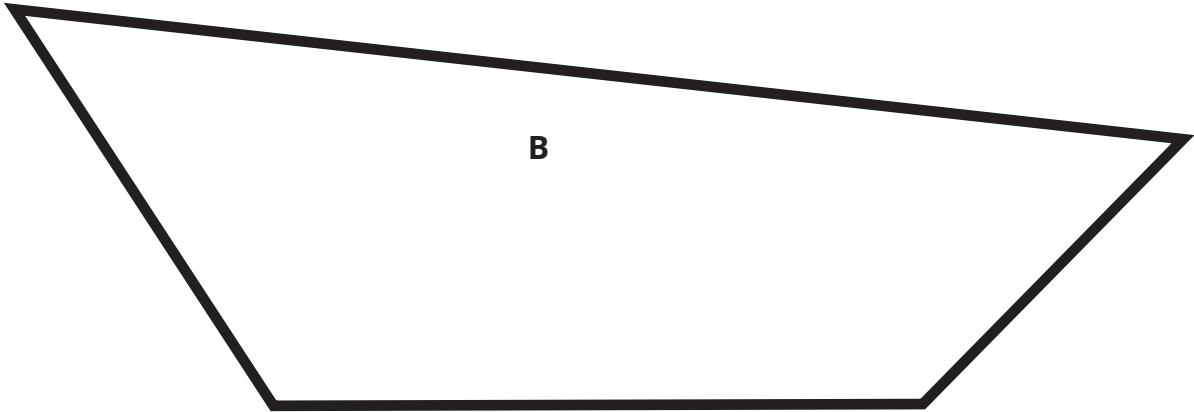
Triangle B



Quadrilateral A



Quadrilateral B





Quadrilateral C

