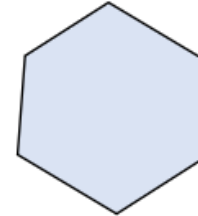
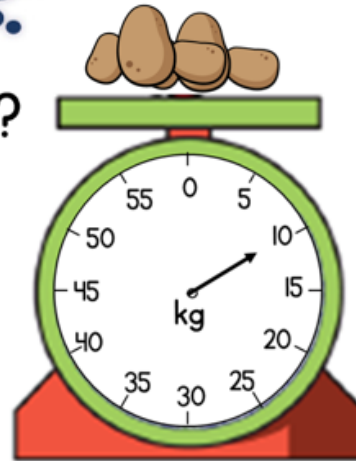


SIMMERING BRONZE

Flashback 4

What shape is this?

1) How heavy are the potatoes?



2) How many minutes are there in 2 and a half hours?

3) What time is shown on the clock?



4) What is double 8 subtract 3?



Flashback 4

What shape is this?

1) $1,000 \text{ g} = \underline{\quad} \text{ kg}$

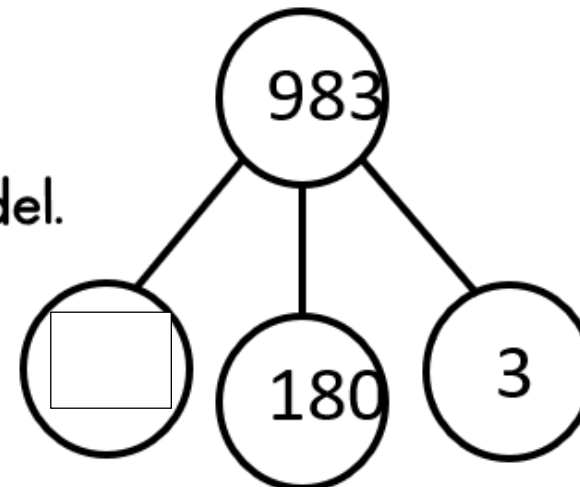
2) How many faces does a cuboid have?



3) Which is longest 30 cm, 30 mm or 3 m?

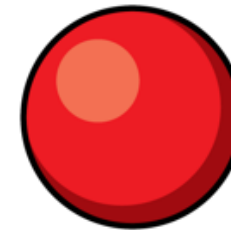


4) Complete the part-whole model.

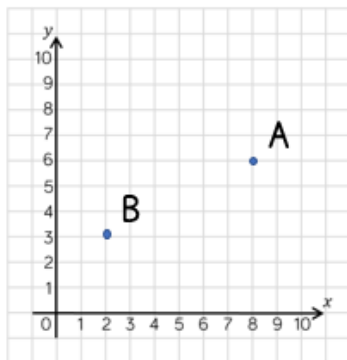


Flashback 4

How many vertices has this shape got?



- 1) Describe the translation from point A to point B.



- 2) Which type of triangle has 1 line of symmetry?

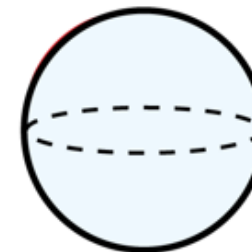
- 3) Which angle is larger, A or B?



- 4) Calculate $300 + 1,900 + 2,700$

Flashback 4

If you cut this shape in half, what shape would it make?



1) Estimate the capacity of a mug.



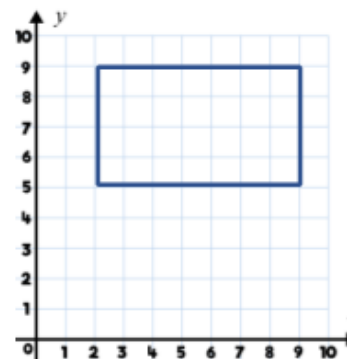
A. 30 ml

B. 300 ml

C. 900 ml

2) 7 week and 3 days = days

3) What are the coordinates of the vertices of the rectangle?

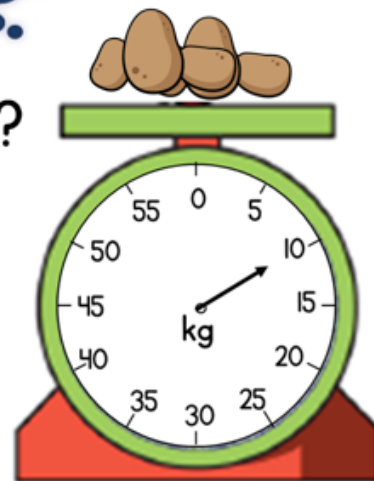


4) Write 17% as a decimal and a fraction.

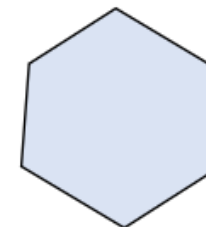
Flashback 4

regular hexagon

1) How heavy are the potatoes?



10 kg



2) How many minutes are there in 2 and a half hours? 150

3) What time is shown on the clock?



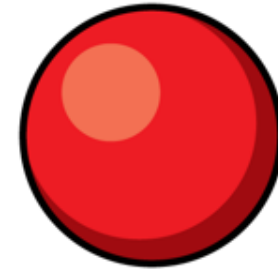
ten to 5

4) What is double 8 subtract 3? 13

Flashback 4

Year 3 | Week 9 | Day 5

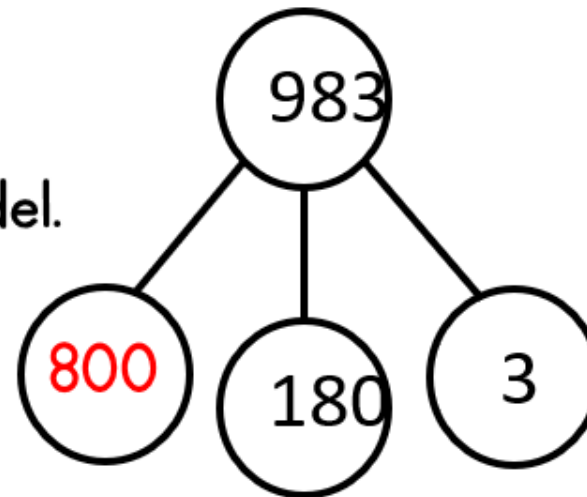
1) $1,000 \text{ g} = \underline{1} \text{ kg}$



2) How many faces does a cuboid have? **6**

3) Which is longest 30 cm, 30 mm or 3 m? **3 m**

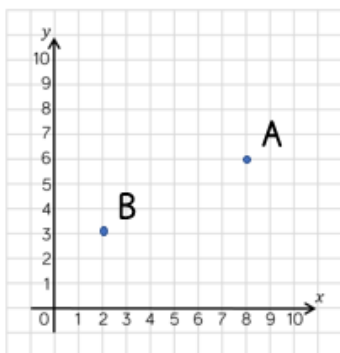
4) Complete the part-whole model.



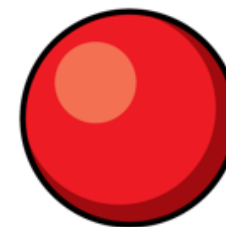
Flashback 4

A sphere does not have any vertices

- 1) Describe the translation from point A to point B.



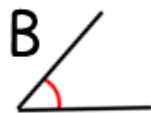
6 left, 3 down



- 2) Which type of triangle has 1 line of symmetry?

isosceles triangle

- 3) Which angle is larger, A or B?



B

- 4) Calculate $300 + 1,900 + 2,700$

4,900

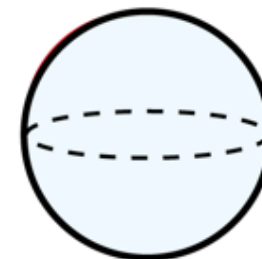
Flashback 4

hemisphere

- 1) Estimate the capacity of a mug.

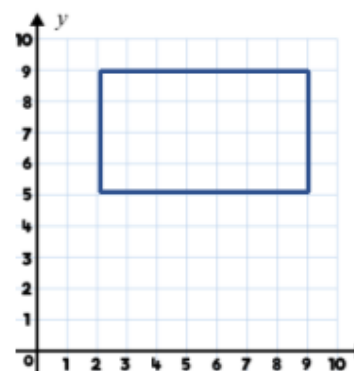


A. 30 ml B. 300 ml C. 900 ml **B. 300 ml**



- 2) 7 week and 3 days = 52 days

- 3) What are the coordinates of the vertices of the rectangle?



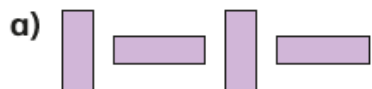
(2,5) (2,9)
(9,5) (9,9)

- 4) Write 17% as a decimal and a fraction.

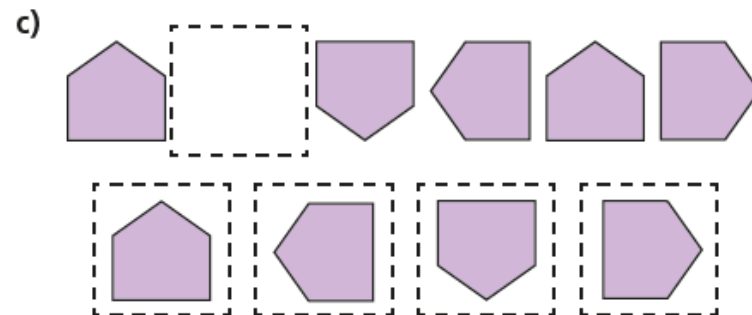
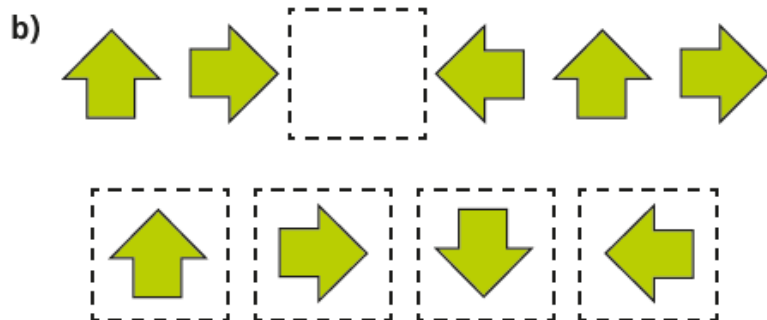
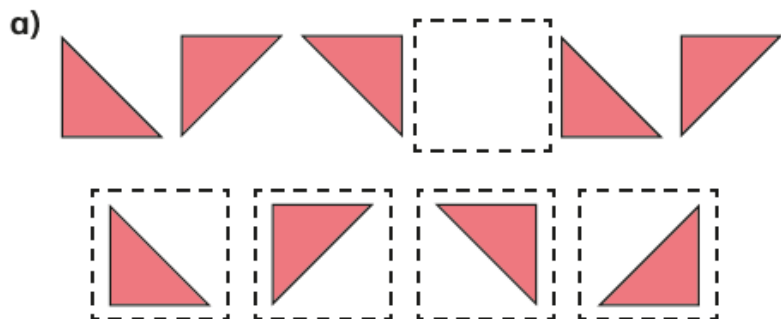
0.17 **$\frac{17}{100}$**

Making patterns with shapes

1 Draw the next two shapes in each pattern.



2 Tick the missing shape for each pattern.

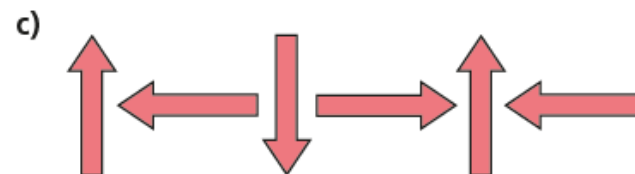


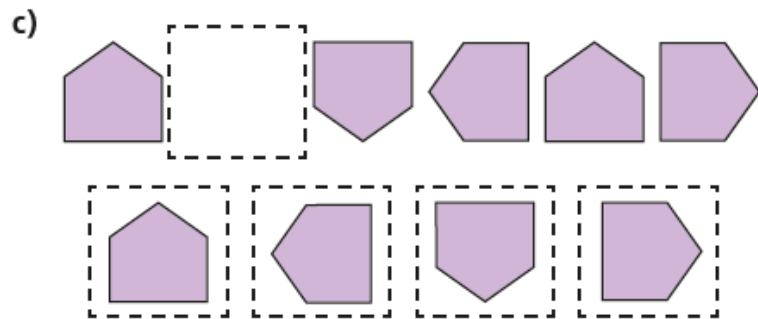
What is the turn in each pattern?

Talk about it with a partner.



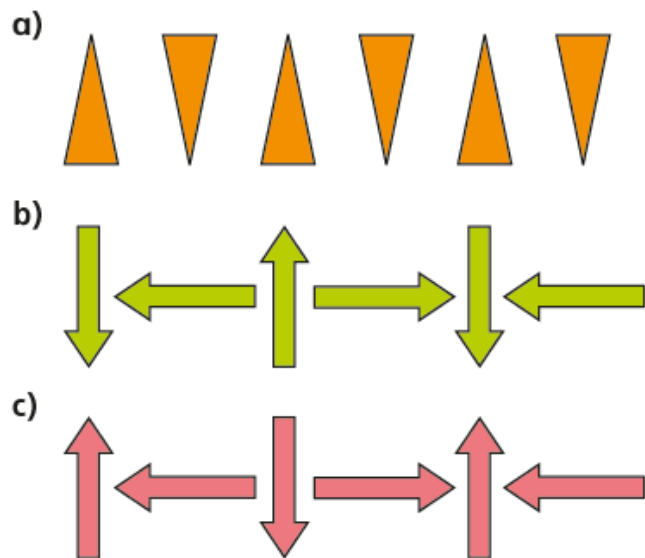
3 Describe the turn in each pattern.





What is the turn in each pattern?
Talk about it with a partner.

3 Describe the turn in each pattern.



4 Tommy is describing a pattern.



The first shape is a triangle and it turns a quarter turn clockwise each time.

Draw the first five shapes in Tommy's pattern.
Compare answers with a partner.

5 Dora, Eva, Amir and Ron are describing a pattern.



Dora

The square does not turn at all each time.



Eva

The square turns a half turn each time.

The square turns a quarter turn each time.



Amir



The square turns a three-quarter turn each time.

Ron

Who do you agree with?

Talk about it with a partner.

Horizontal and vertical

1 Which line is horizontal?



2 Which line is vertical?

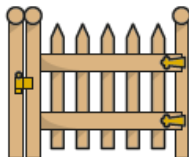


3 Use a ruler to draw the lines.

- Draw a horizontal line 5 cm long.
- Draw a line that is not horizontal or vertical.
- Draw a vertical line 5 cm long.



4 Find two horizontal lines on the gate.



5 Find three vertical lines on the chair.



6 Here are some flags.

a) Which flags have horizontal stripes?



b) Which flags have vertical stripes?



c) Is the statement true or false?

This flag has vertical and horizontal stripes.



6 Here are some flags.

a) Which flags have horizontal stripes?



b) Which flags have vertical stripes?

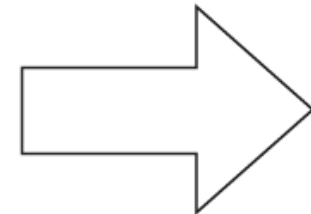
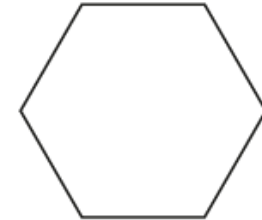
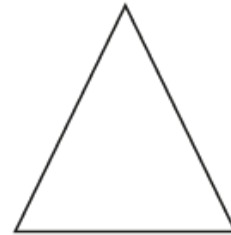


c) Is the statement true or false?

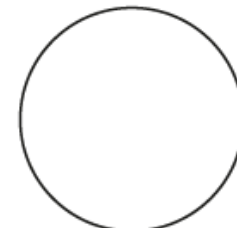
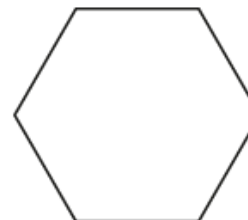
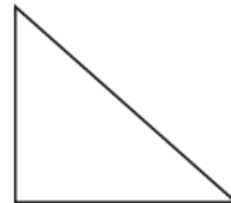
This flag has vertical and horizontal stripes.



7 Draw the shapes that have a vertical line of symmetry. Mark the line of symmetry on the shapes.



8 Draw the shapes that have a horizontal line of symmetry. Mark the line of symmetry on the shapes.



Quadrilaterals

1 Use the word bank to label each quadrilateral.

- rhombus
- parallelogram
- trapezium
- rectangle
- square

a)

d)

b)

e)

c)

How did you know which shape was which?

2 Here are some quadrilaterals.

A

B

C

D

E

- a) Mark any right angles on the shapes.
One shape has been done for you.
- b) Mark any pairs of parallel lines.
One shape has been done for you.
- c) Which shapes do not have any right angles?
- d) Which shapes have two pairs of parallel lines?
- e) Which shapes have four equal sides?

Compare answers with a partner.

3 Complete the table for all the shapes.
The first one has been done for you.


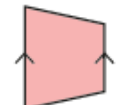
Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
					2

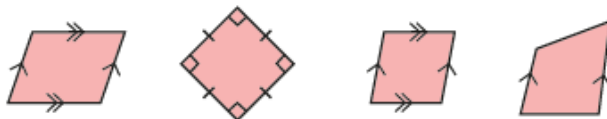
What is the same about all of the shapes? What is different?

- Mark any right angles on the shapes.
One shape has been done for you.
- Mark any pairs of parallel lines.
One shape has been done for you.
- Which shapes do not have any right angles?
- Which shapes have two pairs of parallel lines?
- Which shapes have four equal sides?

Compare answers with a partner.

- Complete the table for all the shapes.
The first one has been done for you.

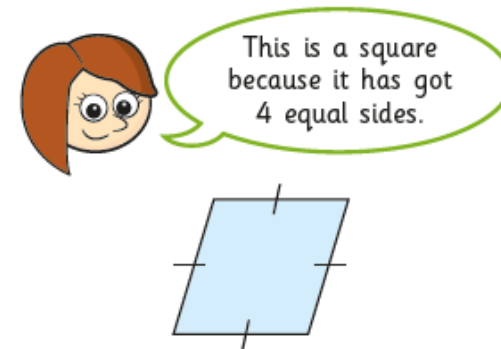
Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
					2



What is the same about all of the shapes? What is different?

- Draw the shapes on a squared grid.
a) square b) trapezium c) parallelogram


5



Do you agree with Rosie?

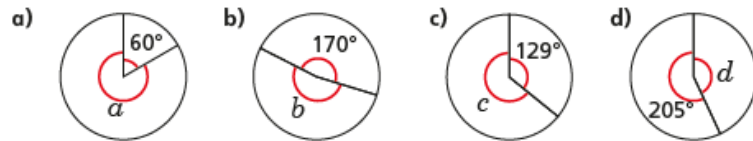
Explain your answer.

- Complete this Frayer Model to describe a quadrilateral.

My definition	Key characteristics
Example	Non-example
	

Calculating angles around a point

1 Work out the sizes of the unknown angles.

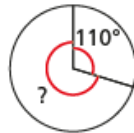


2 Ron turns clockwise through 110 degrees.

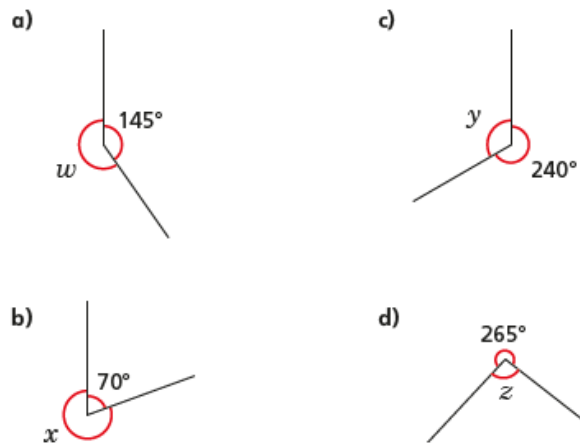
He continues to turn the same way.

He wants to turn to where he was facing at the start.

How many more degrees does he need to turn through?



3 Work out the size of the unknown angles.



4 Work out the sizes of the unknown angles.



5 Ms Hall asks her class to draw an angle of 250 degrees.



Amir

My protractor only goes up to 180 degrees.



Alex

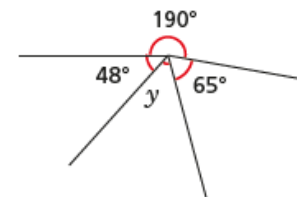
That's true. But I think we can still use it.

a) Explain why Alex is correct.

b) Draw an angle of 250 degrees.

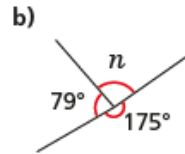
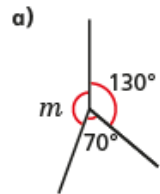
Compare methods with a partner.

6 Work out the size of angle y .



Calculating angles around a point

4 Work out the sizes of the unknown angles.



5 Ms Hall asks her class to draw an angle of 250 degrees.



Amir

My protractor only goes up to 180 degrees.



Alex

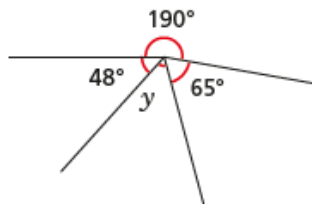
That's true. But I think we can still use it.

a) Explain why Alex is correct.

b) Draw an angle of 250 degrees.

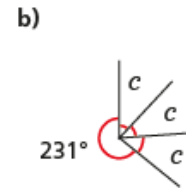
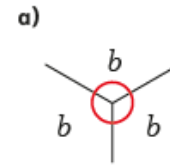
Compare methods with a partner.

6 Work out the size of angle y .

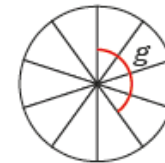


7 Work out the sizes of the unknown angles.

Give reasons to support your answers.



8 A circle is divided into ten equal sections.



What is the size of the angle marked g ?



Making patterns with shapes

1 Draw the next two shapes in each pattern.



a)

b)

c)

d)

2 Tick the missing shape for each pattern.

a)

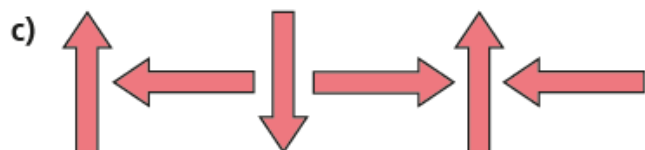
b)

c)

What is the turn in each pattern?
Talk about it with a partner.



3 Describe the turn in each pattern.

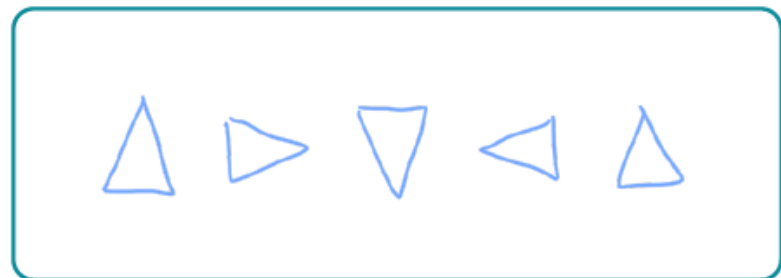


4 Tommy is describing a pattern.

The first shape is a triangle and it turns a quarter turn clockwise each time.



Draw the first five shapes in Tommy's pattern.



Compare answers with a partner.

5 Dora, Eva, Amir and Ron are describing a pattern.



Dora

The square does not turn at all each time.

The square turns a quarter turn each time.



Amir



Eva

The square turns a half turn each time.

The square turns a three-quarter turn each time.



Ron

Who do you agree with? ALL

Talk about it with a partner.

Horizontal and vertical

1 Circle the line that is horizontal.



2 Circle the line that is vertical.

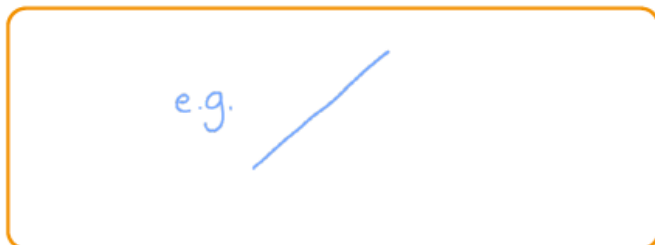


3 Use a ruler to draw the lines.

a) Draw a horizontal line 5 cm long.



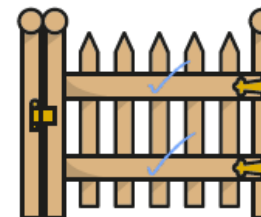
b) Draw a line that is not horizontal or vertical.



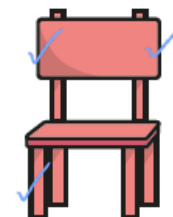
c) Draw a vertical line 5 cm long.



4 Tick two horizontal lines on the gate.

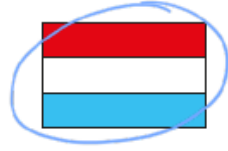
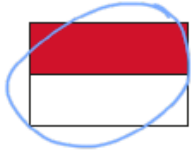


5 Tick three vertical lines on the chair.

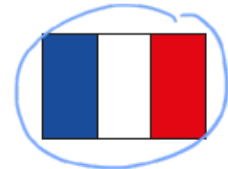


6 Here are some flags.

a) Circle the flags that have horizontal stripes.



b) Circle the flags that have vertical stripes.



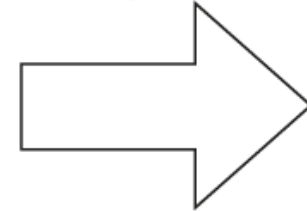
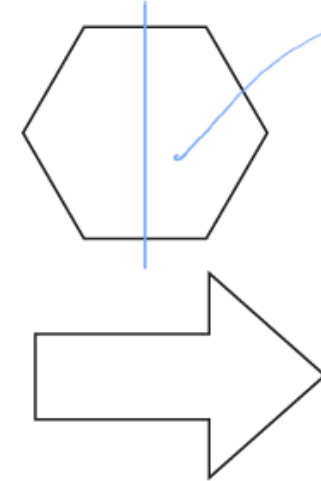
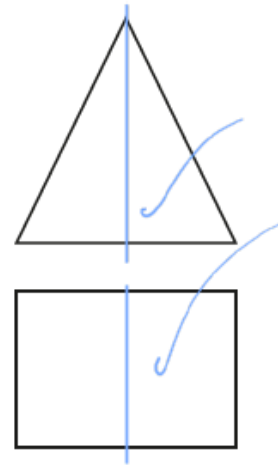
c) Is the statement true or false?

This flag has vertical and horizontal stripes.

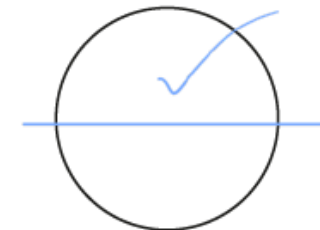
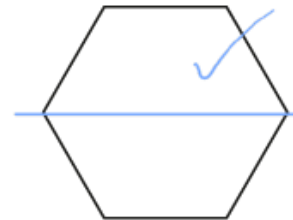
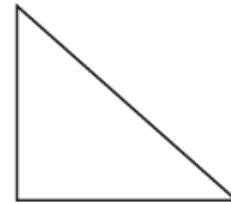


false

7 Tick the shapes that have a vertical line of symmetry.
Draw on the shapes to show the line of symmetry.



8 Tick the shapes that have a horizontal line of symmetry.
Draw on the shapes to show the line of symmetry.

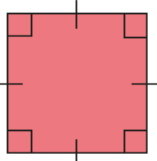


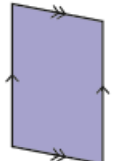



Quadrilaterals

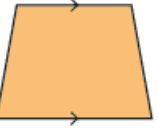
1 Use the word bank to label each quadrilateral.

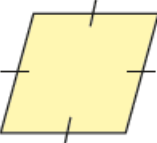
- rhombus
- parallelogram
- trapezium
- rectangle
- square

a) 
square

d) 
parallelogram

b) 
rectangle

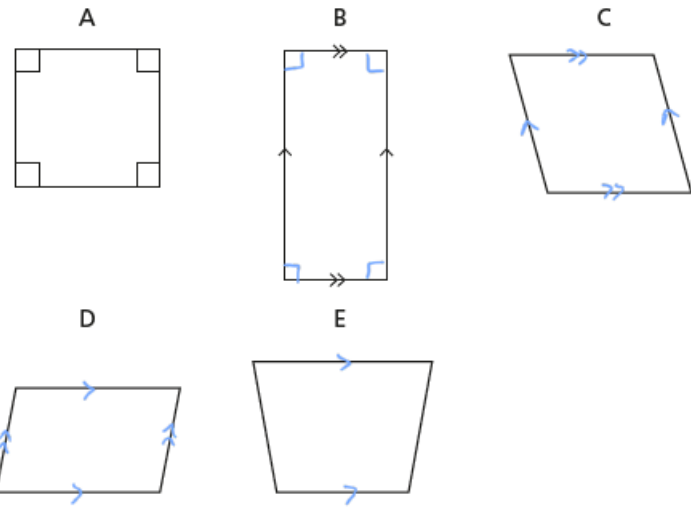
e) 
trapezium

c) 
Rhombus

How did you know which shape was which?



2 Here are some quadrilaterals.



a) Mark any right angles on the shapes.
 One shape has been done for you.

b) Mark any pairs of parallel lines.
 One shape has been done for you.

c) Which shapes do not have any right angles?

C D E

d) Which shapes have two pairs of parallel lines?

B C D

e) Which shapes have four equal sides?

A C

Compare answers with a partner.



3 Complete the table.

Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
	Yes	4	0	1	2
	Yes	4	0	2	2 pairs
	Yes	4	4	2	4
	Yes	4	0	2	4
	Yes	4	0	1	0

What is the same about all of the shapes?
 What is different?

4 Draw the shapes on the grid.

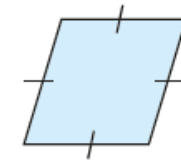
a) square b) trapezium c) parallelogram

e.g.

5



This is a square because it has got 4 equal sides.



Do you agree with Rosie? No

Explain your answer.

6

Complete this Frayer Model to describe a quadrilateral.

e.g.

My definition A closed shape with four straight sides.	Key characteristics closed shape 4 straight sides 4 vertices
Quadrilateral	
Example 	Non-example

Calculating angles around a point

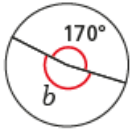
1 Work out the sizes of the unknown angles.

a)



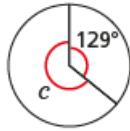
$a = 300^\circ$

b)



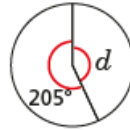
$b = 190^\circ$

c)



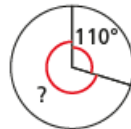
$c = 231^\circ$

d)



$d = 155^\circ$

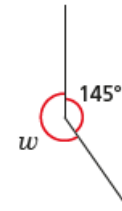
2 Ron turns clockwise through 110 degrees. He continues to turn the same way. He wants to turn to where he was facing at the start. How many more degrees does he need to turn through?



250°

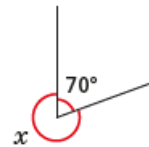
3 Work out the size of the unknown angles.

a)



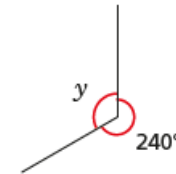
$w = 215^\circ$

b)



$x = 290^\circ$

c)



$y = 120^\circ$

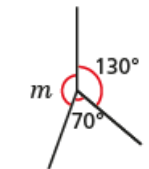
d)



$z = 95^\circ$

4 Work out the sizes of the unknown angles.

a)



$m = 160^\circ$

b)



$n = 106^\circ$

- 5 Ms Hall asks her class to draw an angle of 250 degrees.

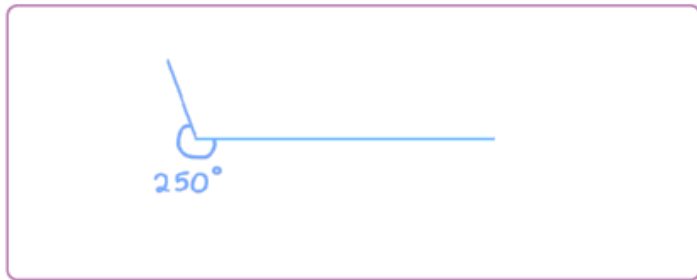


My protractor only goes up to 180 degrees.

That's true. But I think we can still use it.

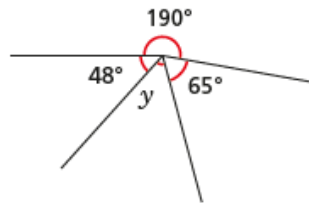


- a) Explain why Alex is correct.
b) Draw an angle of 250 degrees.



Compare methods with a partner.

- 6 Work out the size of angle y .

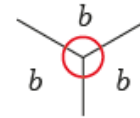


$y =$ $^{\circ}$

- 7 Work out the sizes of the unknown angles.

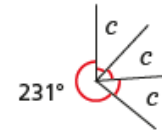
Give reasons to support your answers.

a)



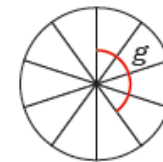
$b =$ $^{\circ}$ because angles around a point sum to 360° and 360 ÷ 3 = 120

b)



$c =$ $^{\circ}$ because angles round a point sum to 360° 360 - 231 = 129 and 129 ÷ 3 = 43

- 8 A circle is divided into ten equal sections.



What is the size of the angle marked g ?

$g =$ $^{\circ}$