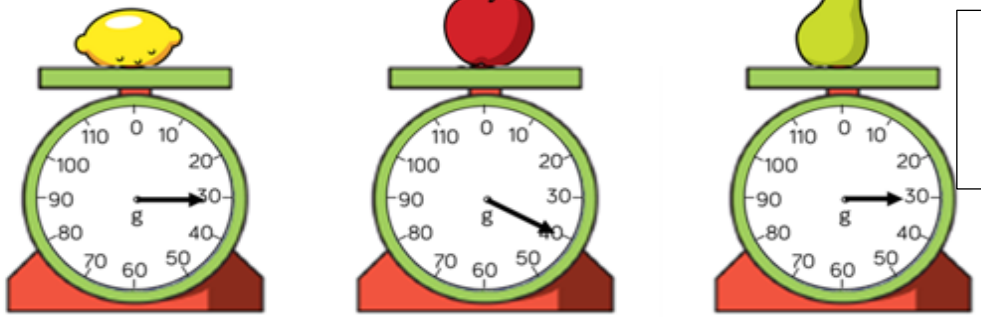
SIMMERING BRONZE

Flashback 4

What shape is this?

1) Which item is the heaviest?



2) How much heavier is the apple than the pear?

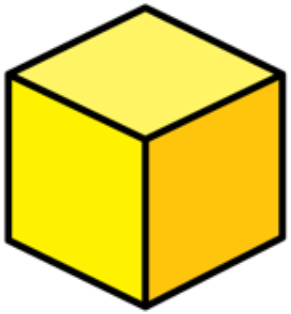
3) What time is shown on the clock?

4) What is double 6 add 5?

SIMMERING SILVER

Flashback 4

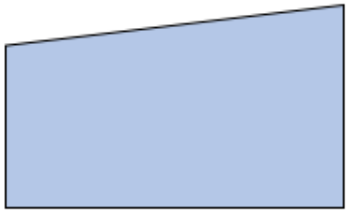
What shape is this?



1) 

The potatoes weigh ☐ kg and ☐ g

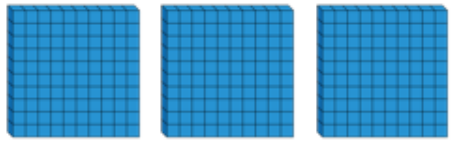
2) How many pairs of perpendicular lines are in the shape?



☐

3) How many acute angles are in the shape above? ☐

4) Which number is represented?



:: ☐

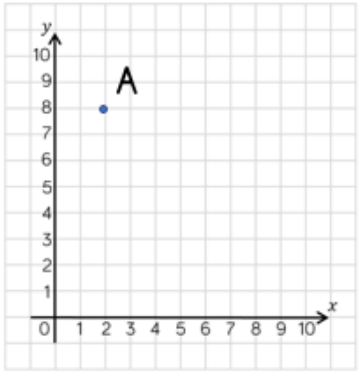
White Rose Maths

SIMMERING GOLD

Flashback 4

What shape is this?

1) Translate point A 4 to the right and 3 down.
Write the coordinates of the new point.



2) How many lines of symmetry does a rhombus have?

3) An angle measures 90°. What type of angle is it?

4) Subtract 3,462 from 5,200

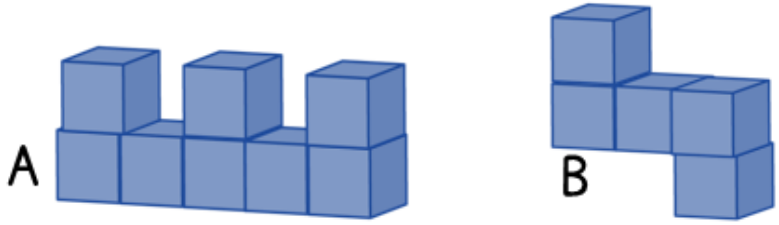
White Rose Maths

SIMMERING PLATINUM

Flashback 4

What shape is this?

1) Put the shapes in ascending order of volume.



2) $\frac{1}{4}$ of an hour is equal to ☐ minutes.

3) How many km are the same as 3,217 m?

4) What number comes next in the sequence?

879, 889, 899, ☐

White Rose Maths

ANSWERS SIMMERING BRONZE

Flashback 4

Year 2 | Week 8 | Day 1

1) How long did the programme last?

start  end 

20 minutes

2) What time is shown on the clock?

25 past 9

3) Use <, > or = to compare the lengths.

30 cm (<) 3 m

4) What is $\frac{3}{4}$ of 12? 9

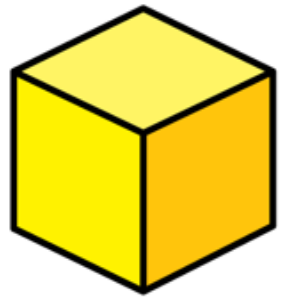
White Rose Maths

ANSWERS SIMMERING SILVER

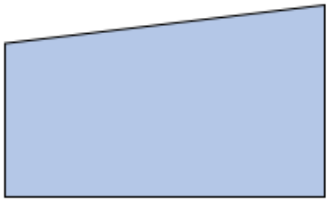
Flashback 4

cube

1) The potatoes weigh 6 kg and 500 g



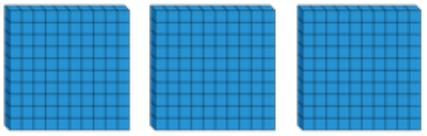
2) How many pairs of perpendicular lines are in the shape?



2

3) How many acute angles are in the shape above? 1

4) Which number is represented?



304

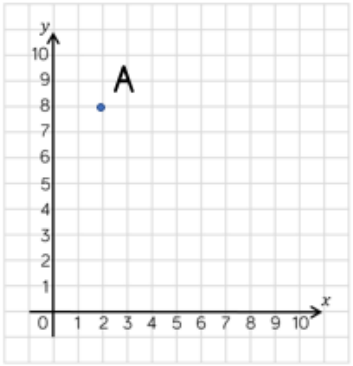
White Rose Maths

ANSWERS SIMMERING GOLD

Flashback 4

cone

1) Translate point A 4 to the right and 3 down.
Write the coordinates of the new point.



(6, 5)

2) How many lines of symmetry does a rhombus have? 2

3) An angle measures 90°. What type of angle is it?
right angle

4) Subtract 3,462 from 5,200 1,738

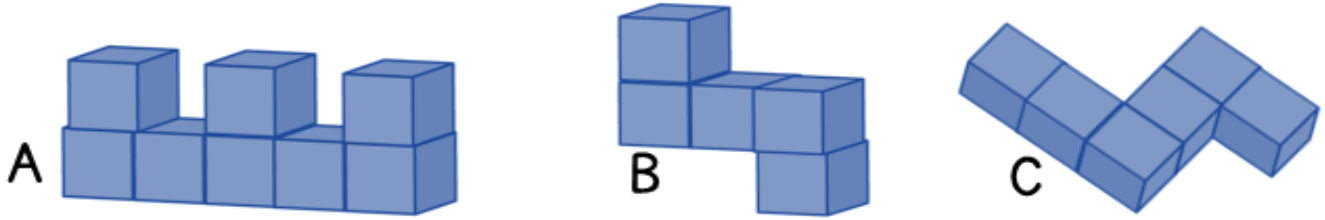
White Rose Maths

ANSWERS SIMMERING PLATINUM

Flashback 4

kite

1) Put the shapes in ascending order of volume.



B, C, A

2) $\frac{1}{4}$ of an hour is equal to [15] minutes.

3) How many km are the same as 3,217 m? 3.217 km

4) What number comes next in the sequence?

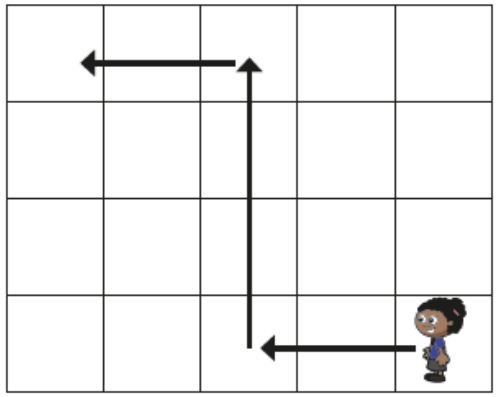
879, 889, 899, 909

White Rose Maths

BRONZE

Describing movement and turns

1 Whitney is moving around a grid.



Complete the sentences to describe Whitney's movement.

First, she walks ☐ squares forwards.

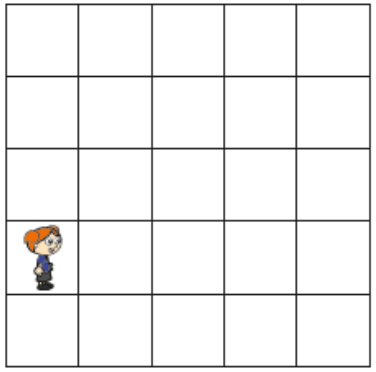
Then she turns _____ and walks ☐ squares forwards.

Then she turns _____ and walks ☐ squares forwards.

2 Alex is moving around a grid.

Draw arrows to show her movement.

- First, she walks 2 squares forwards.
- Then, she turns left and walks 3 squares forwards.
- Then she turns right and walks 2 squares forwards.

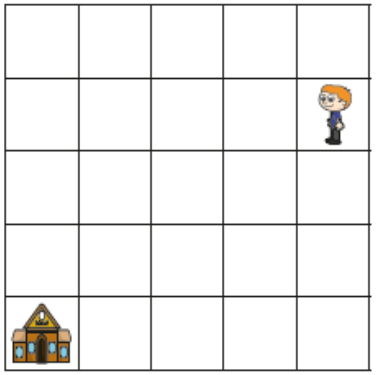


Could Alex have got there another way?

3 Ron is on his way to school.

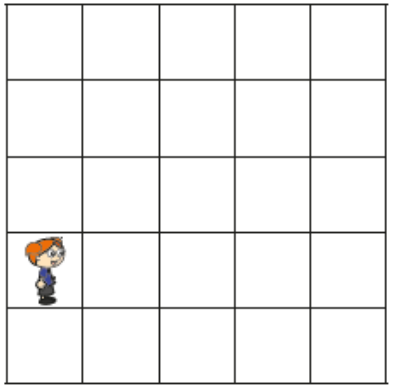
a) Draw arrows to show the path Ron could take to school.

b) Describe the path to a partner.
Did you choose the same path for Ron?



2 Alex is moving around a grid.

Draw arrows to show her movement.



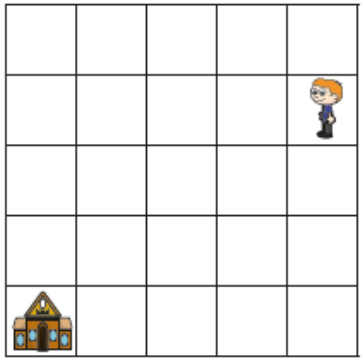
- First, she walks 2 squares forwards.
- Then, she turns left and walks 3 squares forwards.
- Then she turns right and walks 2 squares forwards.

Could Alex have got there another way?

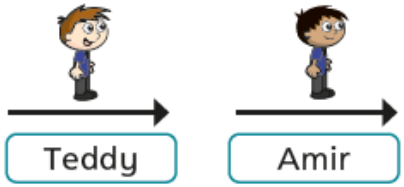
3 Ron is on his way to school.

a) Draw arrows to show the path Ron could take to school.

b) Describe the path to a partner.
Did you choose the same path for Ron?



4 Teddy and Amir are both facing the same way.



a) Teddy turns left.
Draw an arrow to show the way he is facing now.

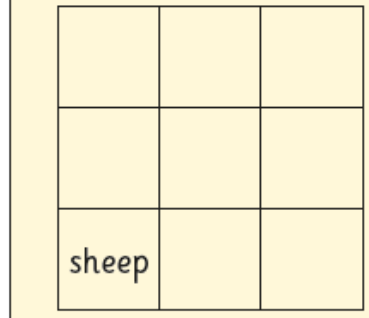
b) Amir turns a quarter turn anticlockwise.
Draw an arrow to show the way he is facing now.

What do you notice?

5 Rosie and Dexter are answering a question.

The sheep moves 2 squares forwards.

Where is the sheep now?



Who do you agree with?
Talk about it with a partner.

Compare angles

1 Here are some angles.

a) Which angle is greater than a right angle?

b) Which angle is less than 90 degrees?

2 Draw three different angles that are less than a right angle.

Compare answers with a partner.

Complete the sentence.

These are all examples of _____ angles.

3 Draw two different obtuse angles.

Compare answers with a partner.

Complete the sentence.

Obtuse angles are greater than ☐ degrees

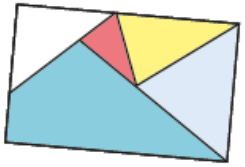
but less than ☐ degrees.

4 Is the angle between the hands of the clock acute or obtuse?

a)

b)

5 Here is a piece of wallpaper.



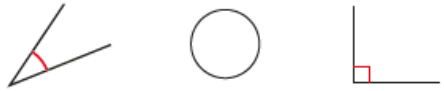
a) Find two right angles on the wallpaper.

b) Find four acute angles on the wallpaper.

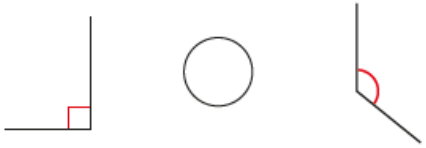
c) Find two obtuse angles on the wallpaper

6 Write <, > or = to compare the sizes of the angles.

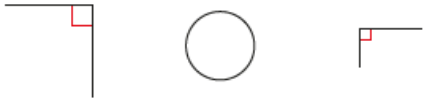
a)



b)



c)



7 Draw a shape that has one right angle, two acute angles and one obtuse angle.

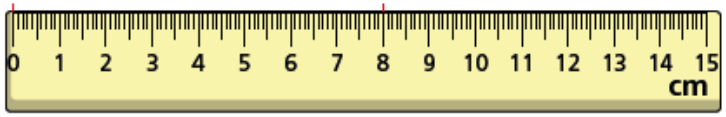
Compare answers with a partner.

What is the same and what is different about your shapes?

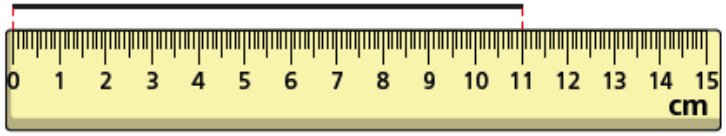
Draw accurately

1 How long is each line?

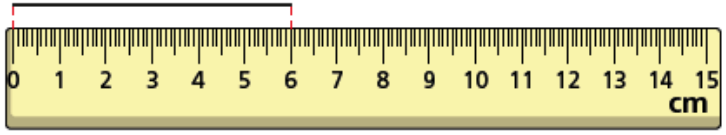
a)



b)

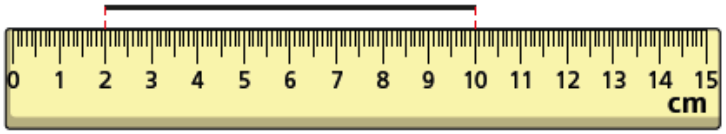


c)



2 Draw two lines that are each 5 cm long.

3 Dani says the line is 10 cm long.

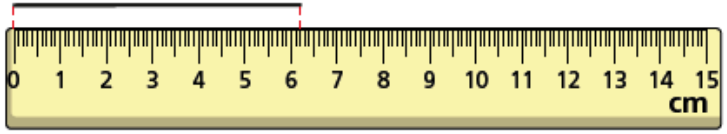


a) What mistake has Dani made?

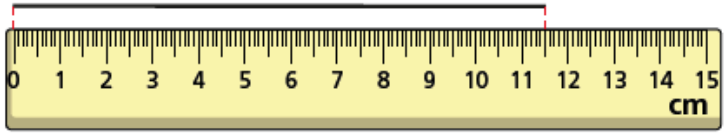
b) How long is the line?

4 What is the length of each line in millimetres?

a)



b)



c) _____

5 Use a ruler to draw the lines.

a) Draw a line 8 cm long.

b) Draw a line 80 mm long.

What do you notice about the lines you have drawn? Why is this?

6 Use a ruler to help you answer the questions.

a) Draw a 4 cm by 4 cm square.

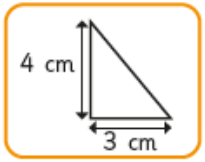
b) Measure the length of the diagonal.

Give your answer in millimetres.

7 Draw a rectangle 8 cm long and 32 mm wide.

8 a) Make a sketch of the triangle.

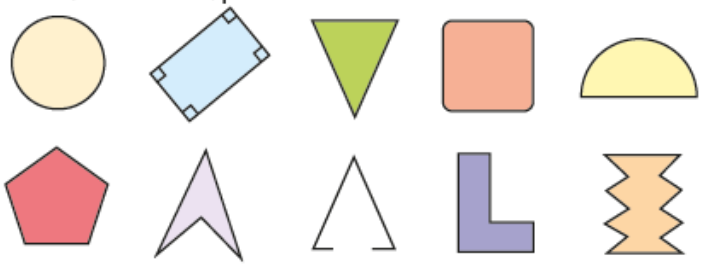
b) Use your drawing to work out the perimeter of the triangle.



GOLD

Triangles

1 Here are some shapes.



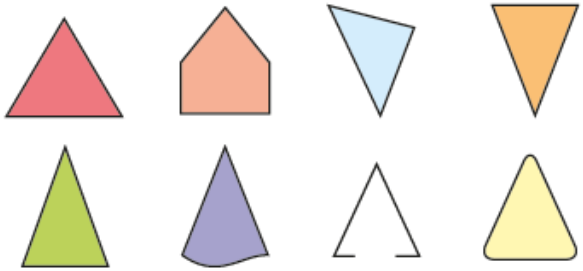
a) Which shapes are polygons?

b) Talk to a partner about why the other shapes are not polygons.

c) Write a definition of a polygon.

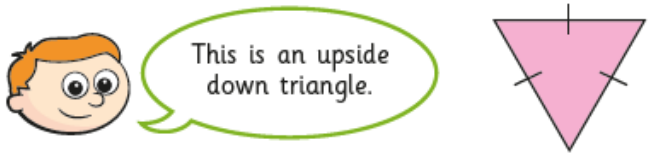
Compare your definition with a partner's.

2 Which shapes are triangles?



For any shapes that are not triangles, talk to a partner about why somebody might think they are triangles.

3 Ron is classifying triangles.

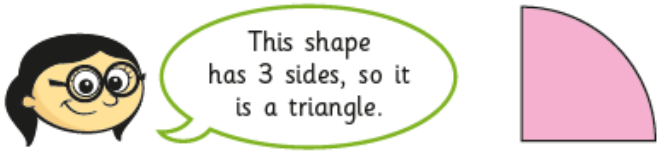


a) Ron is incorrect.

Explain why.

b) What type of triangle is it?

4 Annie is identifying shapes.



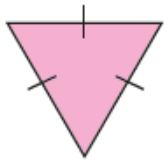
Do you agree with Annie?

Explain your answer.

5 Match the type of triangle to the definition.

scalene	equilateral	isosceles
2 sides and 2 angles equal	no sides or angles equal	all sides and all angles equal

3 Ron is classifying triangles.



a) Ron is incorrect.

Explain why.

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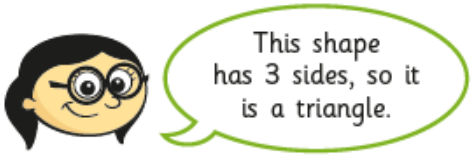
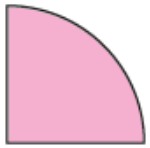
4 Annie is identifying shapes.





Do you agree with Annie?

Explain your answer.

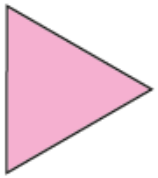
5 Match the type of triangle to the definition.

scalene	equilateral	isosceles
2 sides and 2 angles equal	no sides or angles equal	all sides and all angles equal

6 Label each triangle as either equilateral, isosceles or scalene.

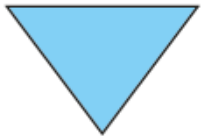
You will need to measure the side lengths.

A

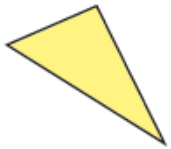


B

C

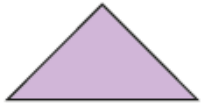


D



E

F



7 Draw each triangle on a squared grid.

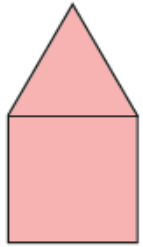
a) isosceles **b)** right-angled **c)** scalene

Which triangle was hardest to draw?

8 The diagram shows an equilateral triangle and a square.

The perimeter of the square is 100 cm.

Work out the perimeter of the compound shape.



PLATINUM

Drawing lines and angles accurately

1 Draw each of the angles accurately.

Use a horizontal line as part of your angle.

a) 60 degrees

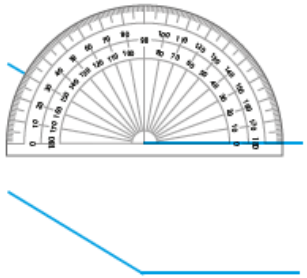
b) 85°

c) 110°

d) 143°

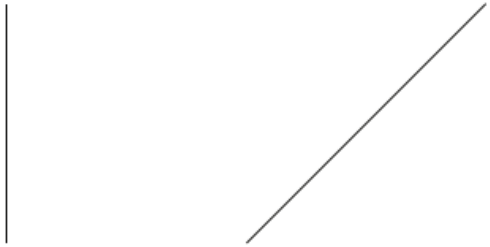
2 Dexter is asked to draw an angle of 30 degrees.

He marks a point as shown.



What mistake has Dexter made?

3 Draw an angle of 100° on each line.

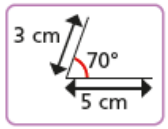


4 Draw three angles that all measure 55°.

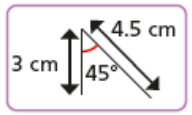
Each angle should be in a different orientation.

5 Draw these lines and angles accurately using a ruler and protractor.

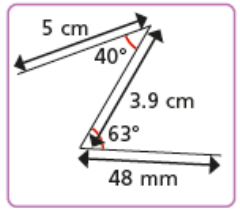
a)



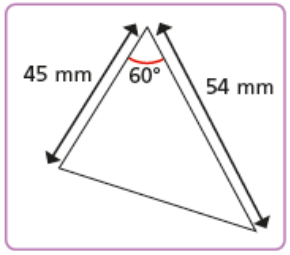
b)



6 Make an accurate drawing of the shape.

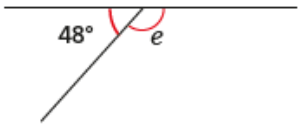


7 Draw the triangle accurately and work out its perimeter.

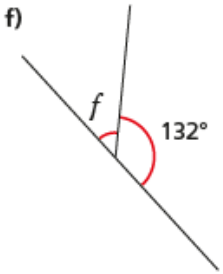


Calculating angles on a straight line

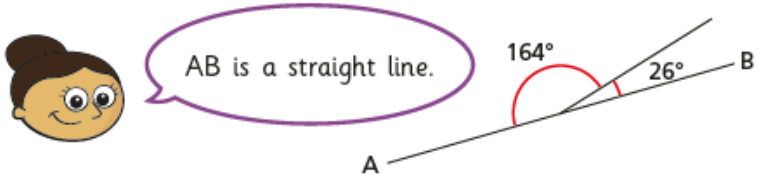
e)



f)



3 Dora draws two angles.



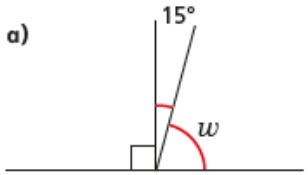
Do you agree with Dora?

Explain your answer.

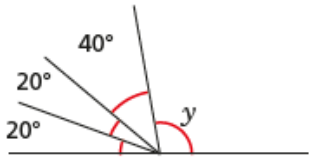
4 Work out the size of the unknown angles.

Show the steps in your working.

a)

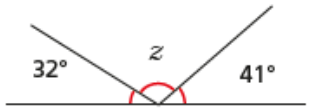


c)



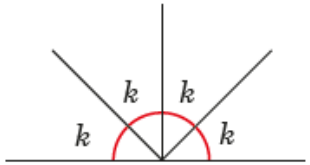
b)

d)

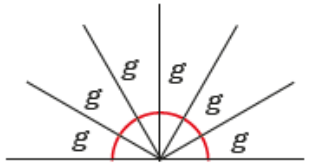


5 Work out the sizes of the unknown angles.

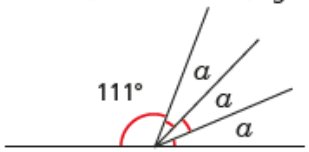
a)



b)

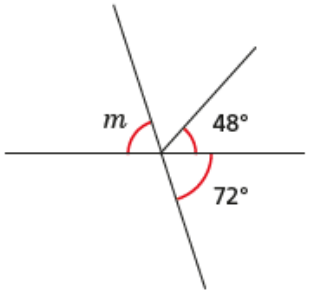


6 Work out the size of angle a.



7 Work out the size of angle m.

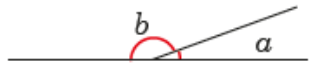
Show all your working out.



8 Two angles are marked.

Angle b is eight times the size of angle a.

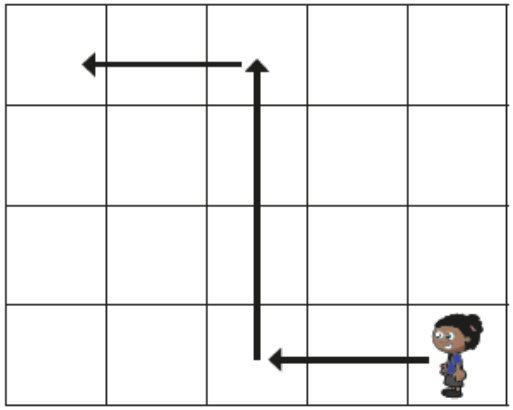
What is the size of each angle?



BRONZE ANSWERS

Describing movement and turns

1 Whitney is moving around a grid.



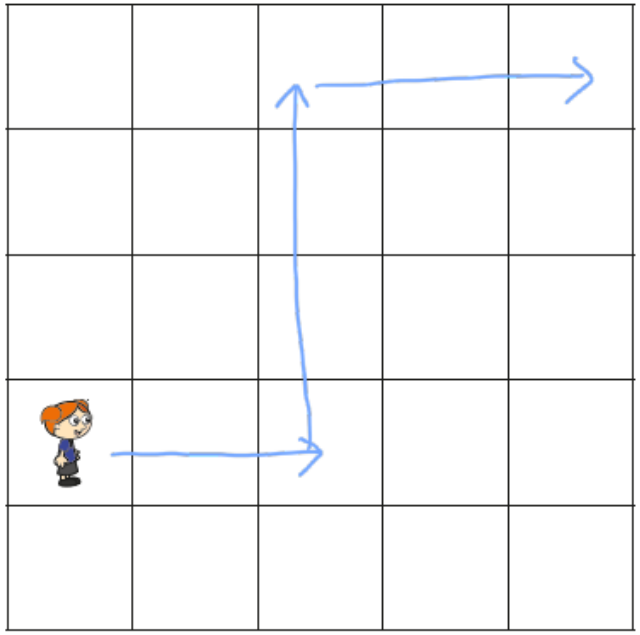
Complete the sentences to describe Whitney's movement.

First, she walks 2 squares forwards.

Then she turns right and walks 3 squares forwards.

Then she turns left and walks 2 squares forwards.

2 Alex is moving around a grid.

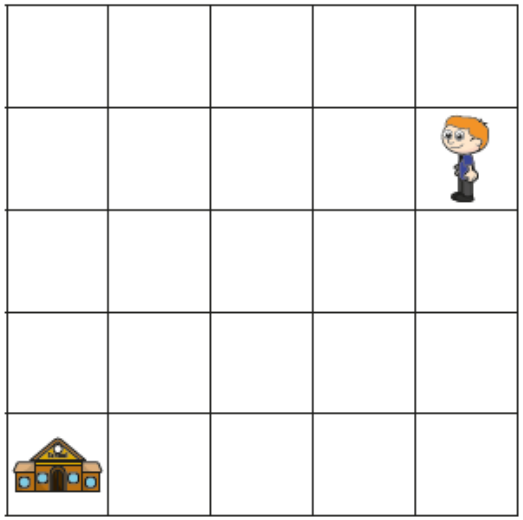


Draw arrows to show her movement.

- First, she walks 2 squares forwards.
- Then, she turns left and walks 3 squares forwards.
- Then she turns right and walks 2 squares forwards.

Could Alex have got there another way?

3 Ron is on his way to school. various answers



a) Draw arrows to show the path Ron could take to school.

b) Describe the route to a partner.
Did you choose the same route for Ron?

4 Teddy and Amir are both facing the same way.

Teddy

Amir

a) Teddy turns left.

Draw an arrow to show the way he is facing now.

b) Amir turns a quarter turn anticlockwise.

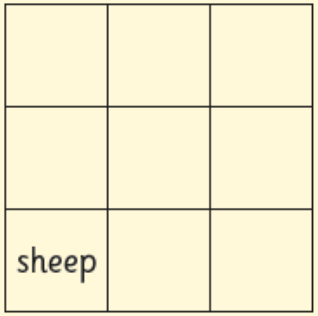
Draw an arrow to show the way he is facing now.

What do you notice?

5 Rosie and Dexter are answering a question.

The sheep moves
2 squares forwards.

Where is the sheep now?



Rosie

Dexter

I know where the sheep is now.

It is impossible to answer this.

Who do you agree with? Dexter

Talk about it with a partner.

SILVER ANSWERS

Compare angles

1 Here are some angles.

a) Circle the angle that is greater than a right angle.

b) Circle the angle that is less than 90 degrees.

2 Draw three different angles that are less than a right angle.

Various answers.

Compare answers with a partner.

Complete the sentence.

These are all examples of acute angles.

3 Draw two different obtuse angles.

Various answers.

Compare answers with a partner.

Complete the sentence.

Obtuse angles are greater than 90 degrees

but less than 180 degrees.

4 Is the angle between the hands of the clock acute or obtuse?

a)

acute

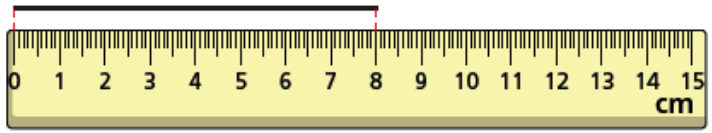
b)

obtuse

Draw accurately

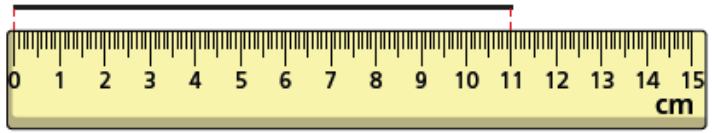
1 How long is each line?

a)



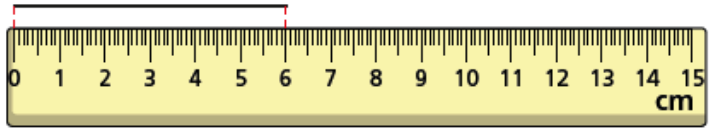
8 cm

b)



11 cm

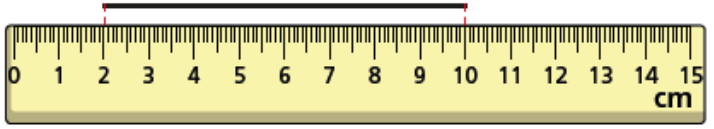
c)



6 cm

2 Draw two lines that are each 5 cm long.

3 Dani says the line is 10 cm long.



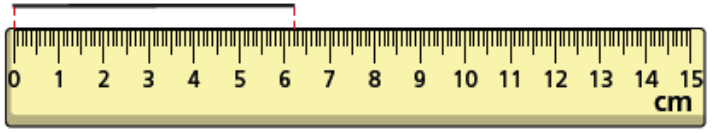
a) What mistake has Dani made?

She hasn't started measuring from 0

b) How long is the line? 8 cm

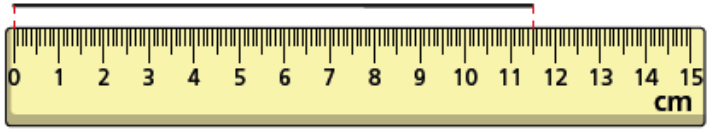
4 What is the length of each line in millimetres?

a)



62 mm

b)



115 mm

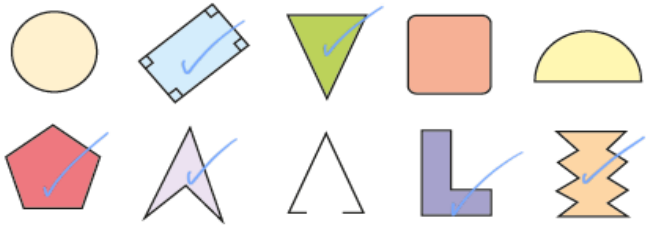
c) _____

mm

GOLD ANSWERS

Triangles

1 Here are some shapes.



a) Tick the polygons.

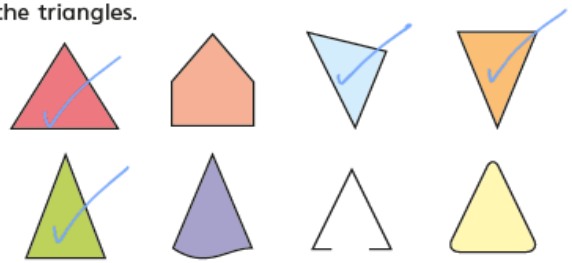
b) Talk to a partner about the shapes you have not ticked.
Why are they not polygons?

c) Write a definition of a polygon.

A closed shape made up of straight sides

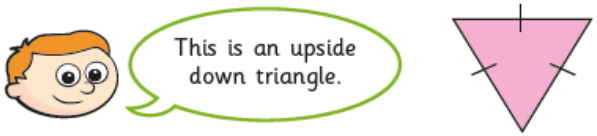
Compare your definition with a partner's.

2 Tick the triangles.



For any shapes you have not ticked, talk to a partner about why somebody might think they are triangles.

3 Ron is classifying triangles.



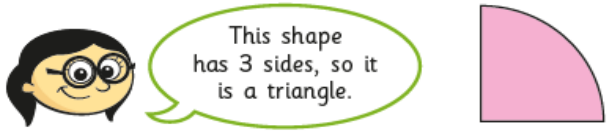
a) Ron is incorrect.

Explain why.

A triangle cannot be upside down.

b) What type of triangle is it? equilateral

4 Annie is identifying shapes.



Do you agree with Annie? No

Explain your answer.

A triangle has three straight sides this shape does not.

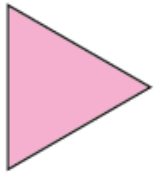
5 Match the type of triangle to the definition.

scalene	2 sides and 2 angles equal
equilateral	no sides or angles equal
isosceles	all sides and all angles equal

6 Label each triangle as either equilateral, isosceles or scalene.

You will need to measure the side lengths.

A

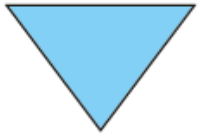


equilateral

B

isosceles

C

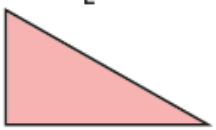


isosceles

D

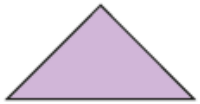
scalene

E



scalene

F

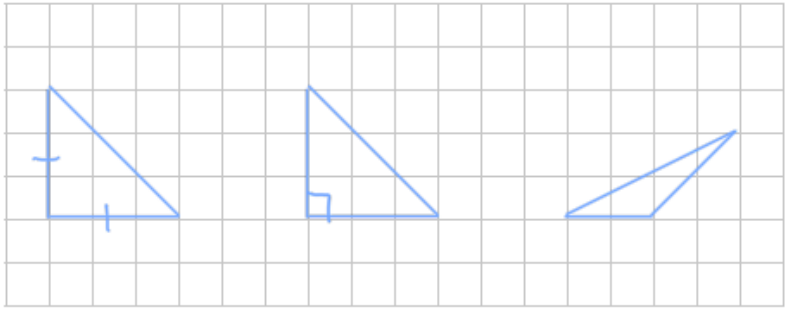


isosceles

7 Draw each triangle in the grid.

a) isosceles **b)** right-angled **c)** scalene

e.g.

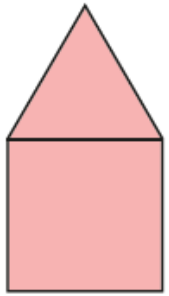


Which triangle was hardest to draw?

8 The diagram shows an equilateral triangle and a square.

The perimeter of the square is 100 cm.

Work out the perimeter of the compound shape.



perimeter = 125 cm

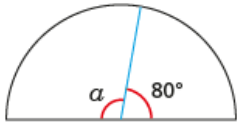
PLATINUM ANSWERS

Calculating angles on a straight line

White Rose Maths

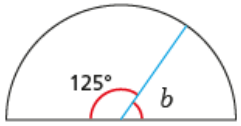
1 Work out the sizes of the unknown angles.

a)



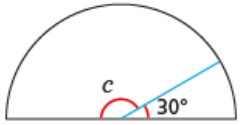
$a =$ 100 °

b)



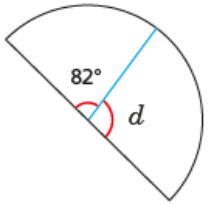
$b =$ 55 °

c)



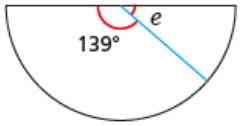
$c =$ 150 °

d)



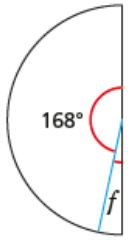
$d =$ 98 °

e)



$e =$ 41 °

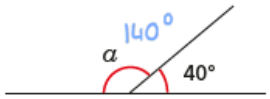
f)



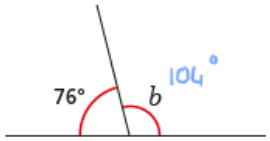
$f =$ 12 °

2 Work out the size of the unknown angles.

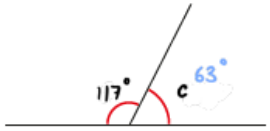
a)



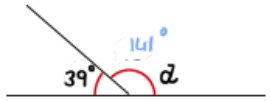
b)



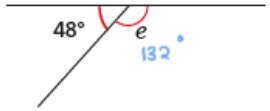
c)



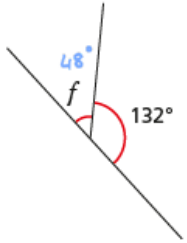
d)



e)

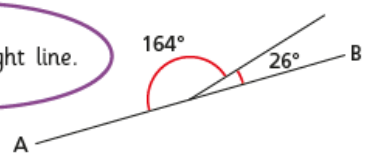


f)



3 Dora draws two angles.

AB is a straight line.



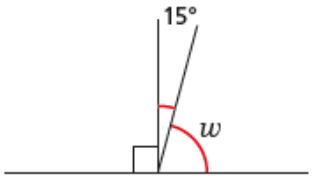
Do you agree with Dora? No

Explain your answer.

4 Work out the size of the unknown angles.

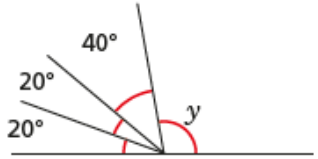
Show the steps in your working.

a)



$w =$ 75° °

c)

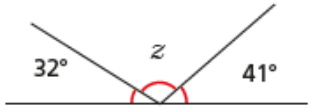


$y =$ 100° °

b)

$x =$ 69 °

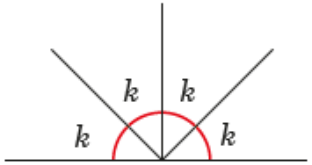
d)



$z =$ 107 °

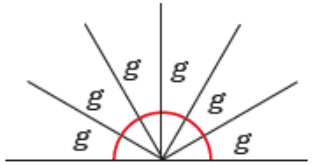
5 Work out the sizes of the unknown angles.

a)



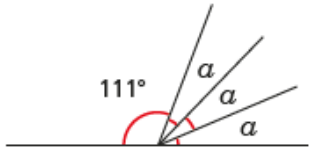
$k =$ 45 °

b)



$g =$ 30 °

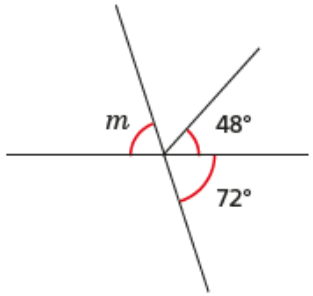
6 Work out the size of angle a.



$a =$ 23 °

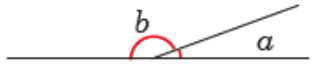
7 Work out the size of angle m.

Show all your working out.



$m =$ 72 °

8 Two angles are marked.



Angle b is eight times the size of angle a.

What is the size of each angle?

$a =$ 20 ° $b =$ 160 °