

**Skill: I can consolidate
everything I have learned
about shapes!**

Rapid Recall

<https://www.topmarks.co.uk/maths-games/hit-the-button>

5 times table practise

Big Question

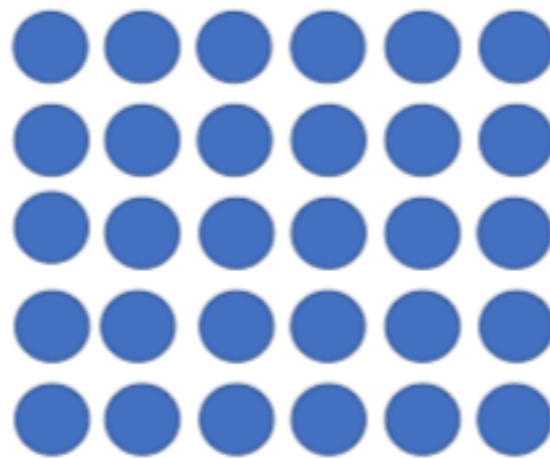
True or False ?

Use arrays

All of the number sentences can be used to find the total of the array.

$$5 + 5 + 5 + 5 + 5 + 5$$

$$6 + 6 + 6 + 6 + 6$$



6 lots of 5

5 lots of 6

$$3 \times 5 + 3 \times 5$$

$$2 \times 5 + 2 \times 5 + 2 \times 5$$

Big Question

True or False?

Use arrays

True

All of the number sentences are equal to 6×5

I Match the shape to its name.



circle

hexagon

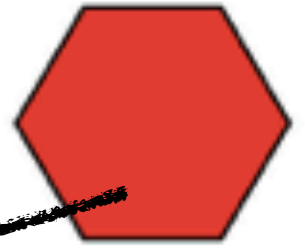
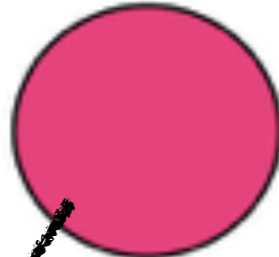
pentagon

square

triangle

rectangle

1 Match the shape to its name.



circle

hexagon

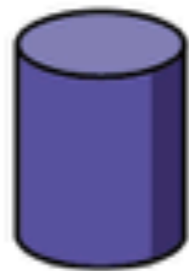
pentagon

square

triangle

rectangle

2 Match the shape to its name.



cuboid

triangular
prism

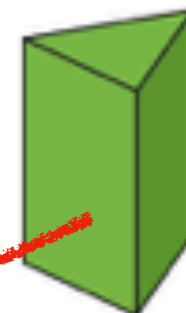
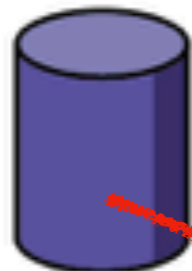
cube

pyramid

sphere

cylinder

2 Match the shape to its name.



cuboid

triangular
prism

cube

pyramid







sphere

cylinder

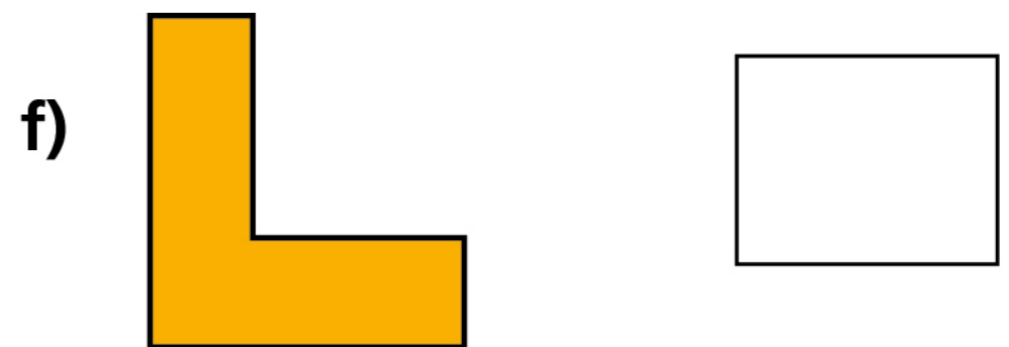
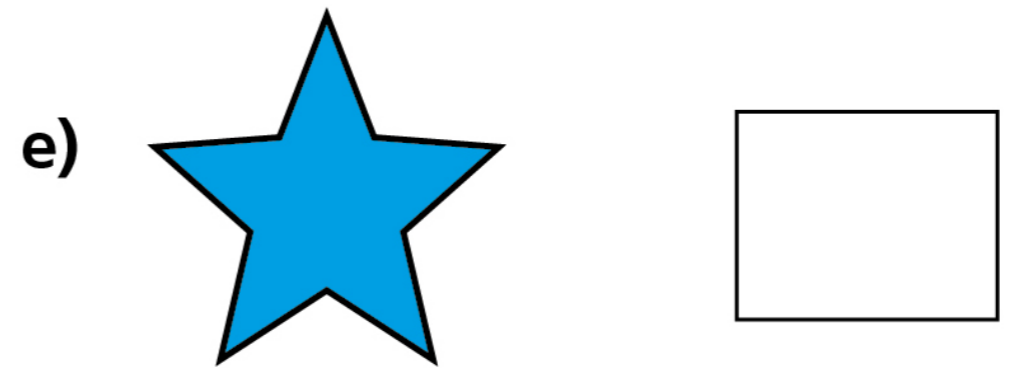
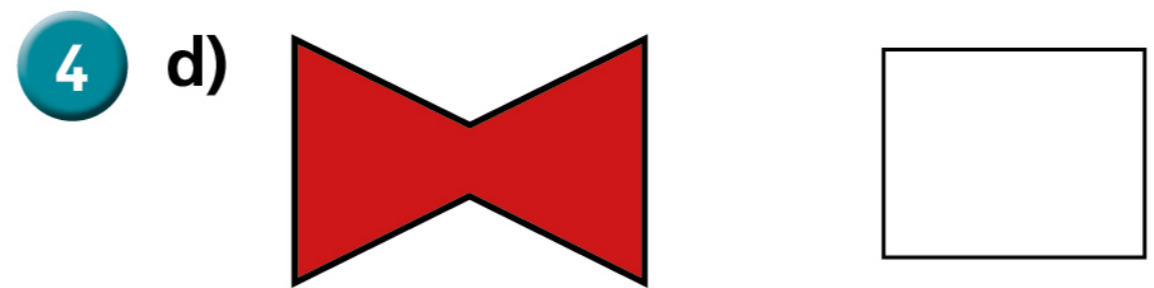
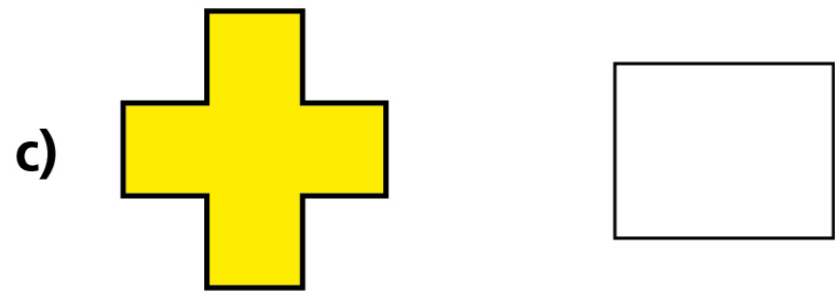
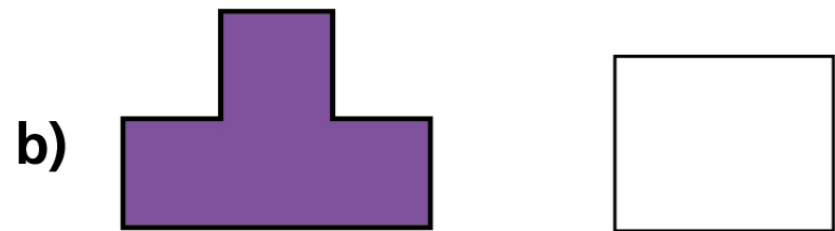
Complete the table.

Name	Shape	Number of sides
		
		3
pentagon		
		6
square		
		8

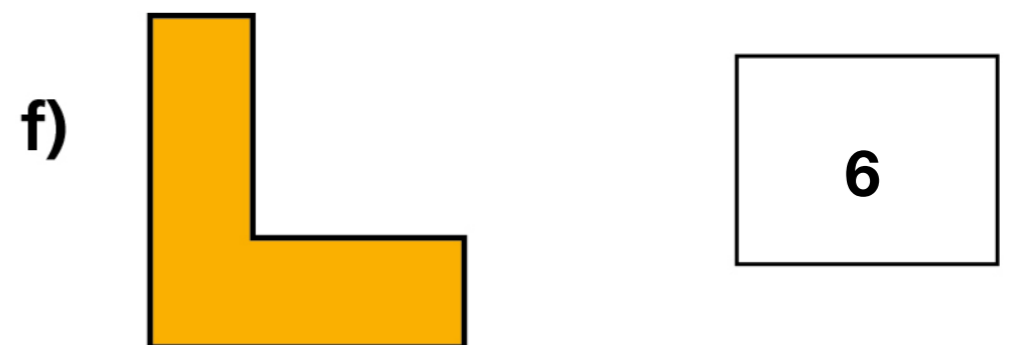
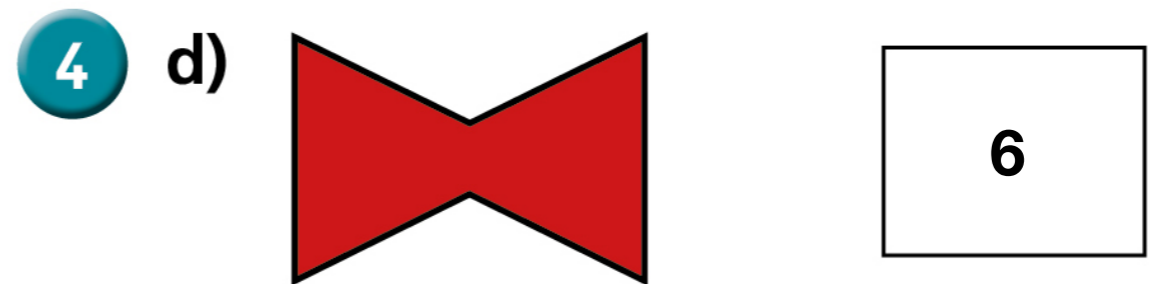
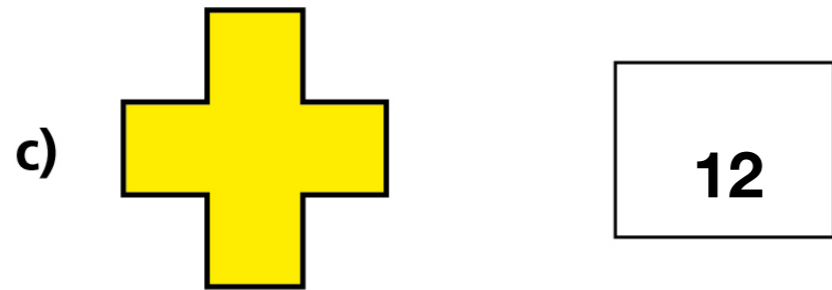
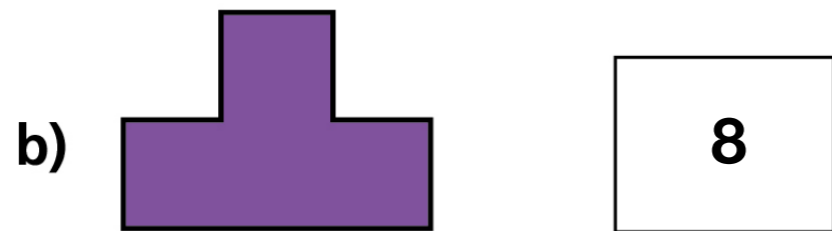
Complete the table.

Name	Shape	Number of sides
Rectangle		4
Triangle		3
pentagon		5
Hexagon		6
square		4
Octagon		8

4 How many vertices does each shape have?

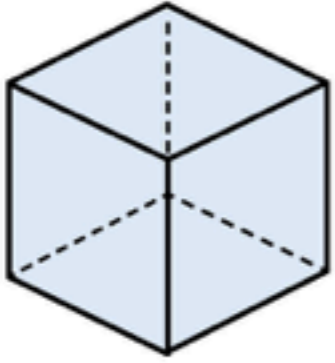


4 How many vertices does each shape have?



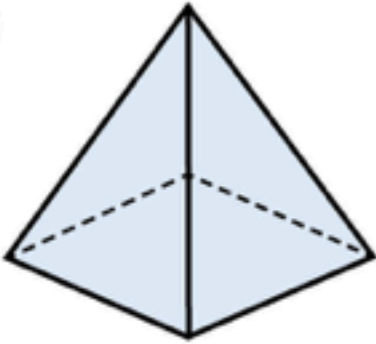
I How many edges does each shape have?

a)



edges

b)



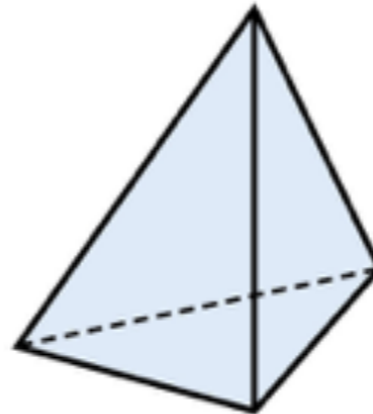
edges

I c)

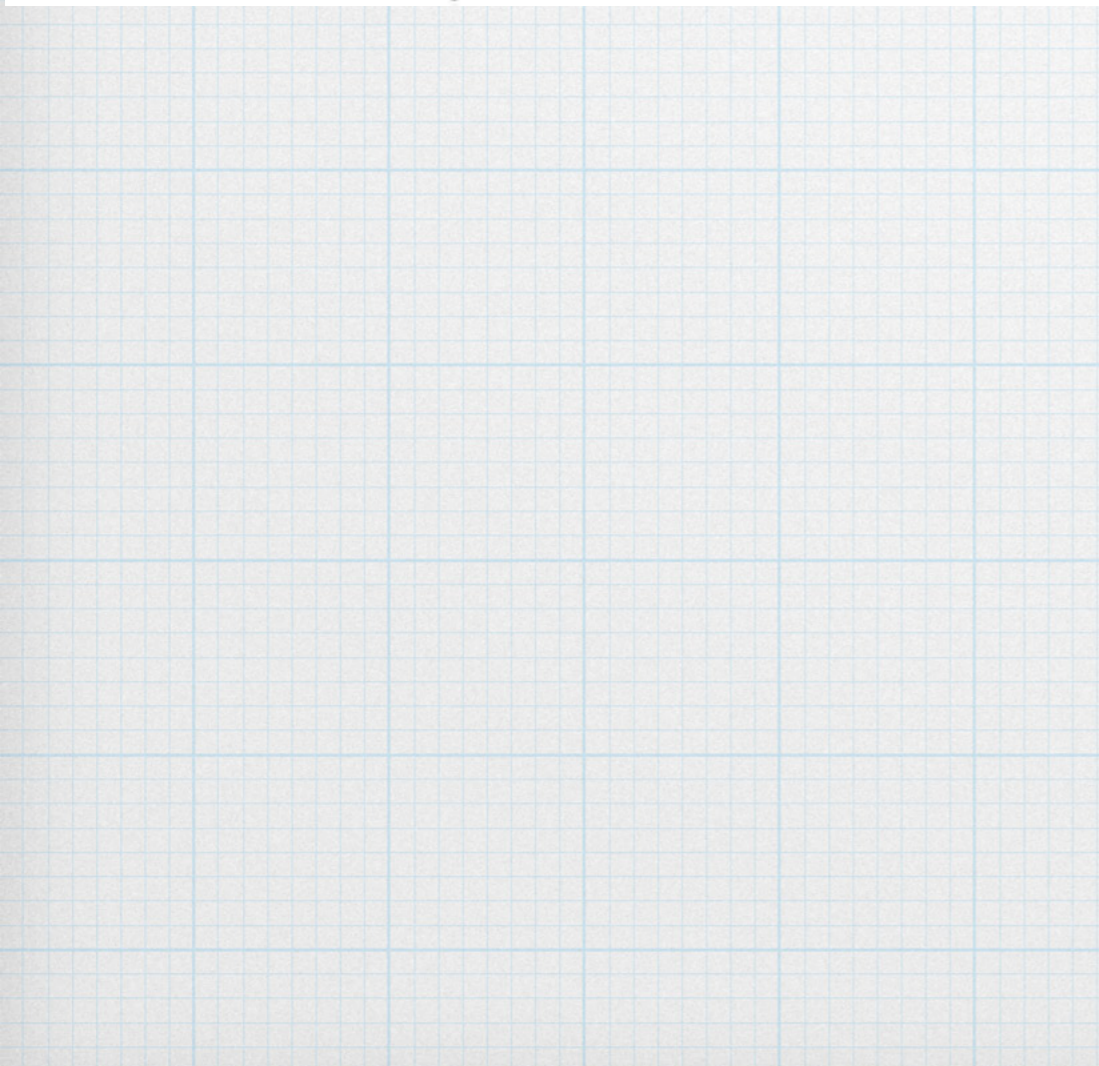
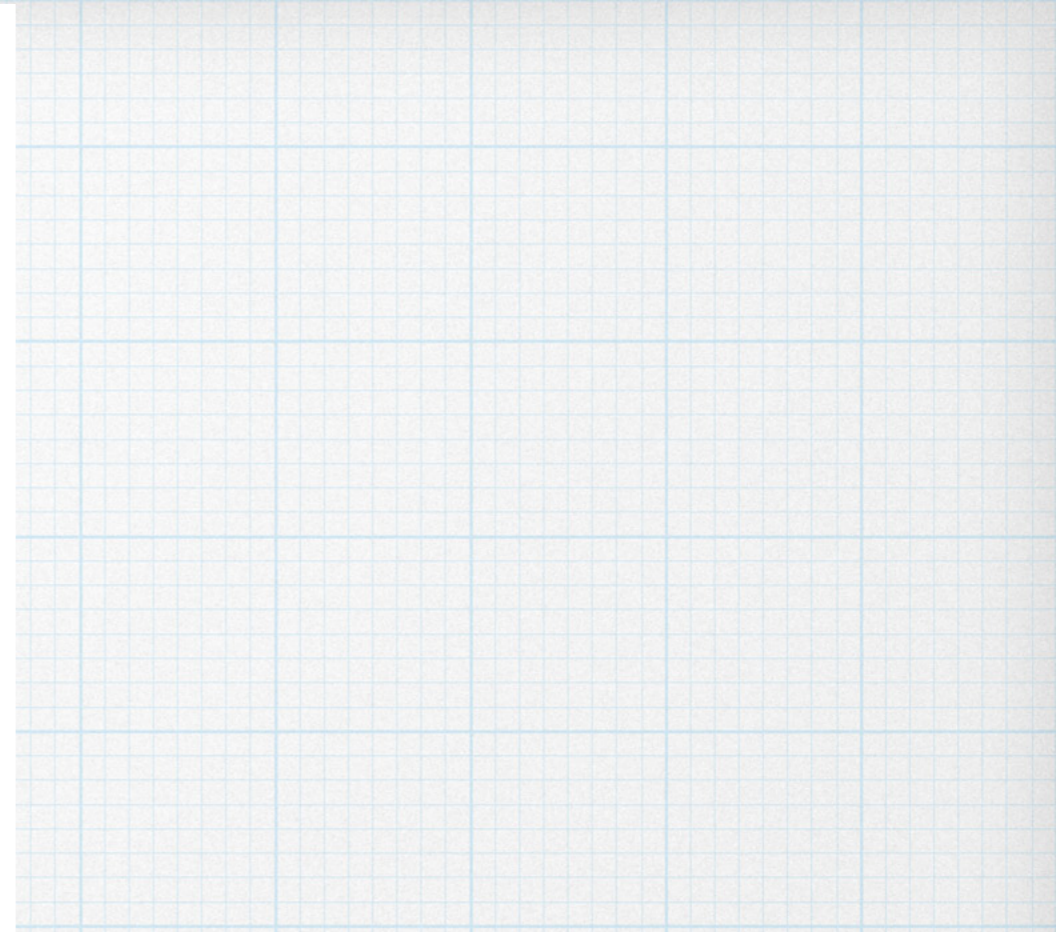


edges

d)

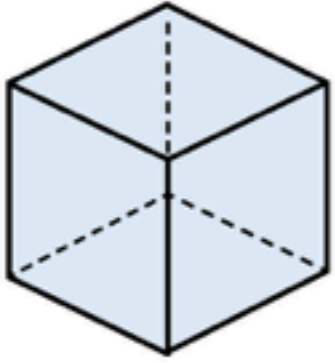


edges



I How many edges does each shape have?

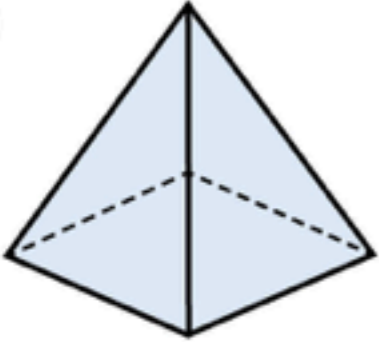
a)



12

edges

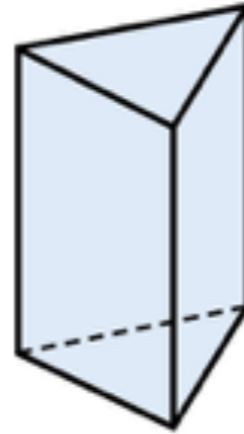
b)



8

edges

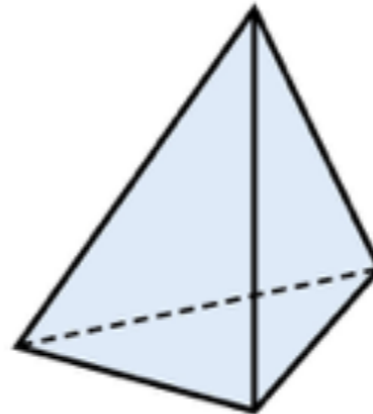
I c)



9

edges

d)





6

edges

Which shape is in the wrong set?

Explain why.



Vertical line of symmetry	No vertical line of symmetry
	

Whitney says,



I have a 3-D shape with 2 square faces and 4 rectangular faces.

Which shape is in the wrong set?
Explain why.

Vertical line of symmetry	No vertical line of symmetry
	

The circle is in the wrong set because it does have a vertical line of symmetry.

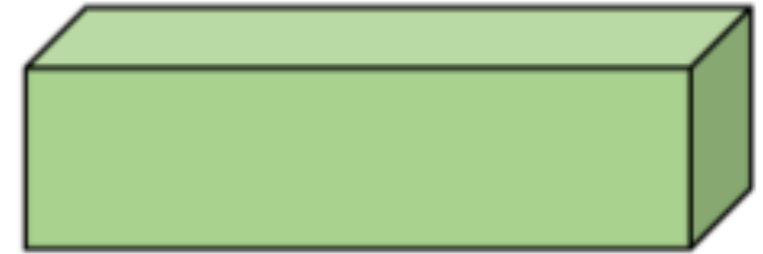
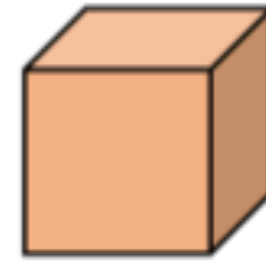
Whitney has a cuboid.

Whitney says,



I have a 3-D shape with 2 square faces and 4 rectangular faces.

Compare these 3-D shapes.

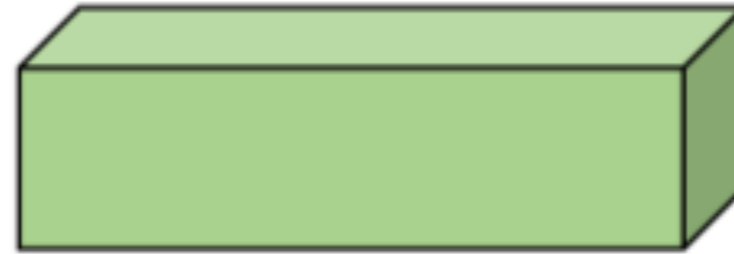
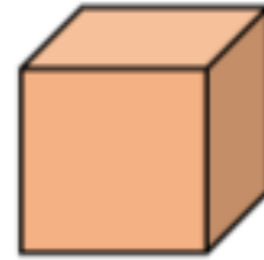


What is the same and what is different?

What is the same about these patterns?
What is different about these patterns?



Compare these 3-D shapes.



What is the same and what is different?

Same - both have square faces, 6 faces, 12 edges, don't roll, can stack, no curved edges.

Different - name, colour, size, one only has square faces the other has squares and rectangles...

The first and second patterns use two shapes. Colour is a difference to note. In the 3rd pattern, one shape is used in different orientations. In the 2nd pattern, the shape is used twice each time.

What is the same about these patterns?
What is different about these patterns?



Activity

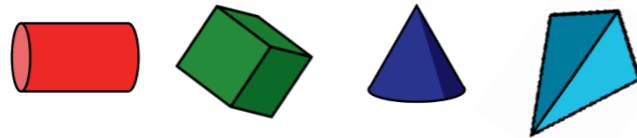


Year 2

Properties of Shape

Name _____

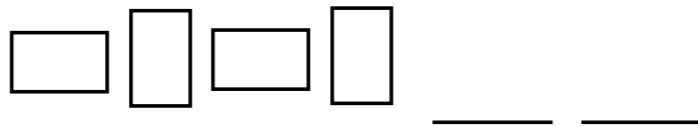
1 Match each shape to its name.



cube cylinder pyramid cone

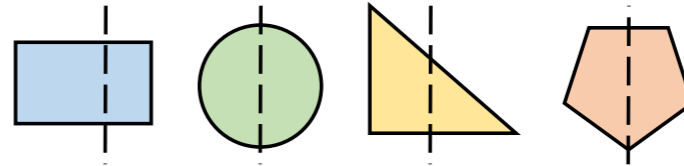
1 mark

2 Draw the next two shapes in each pattern.



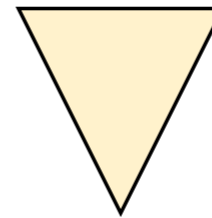
2 marks

3 Circle the shapes with a correct line of symmetry.



1 mark

4 Complete the sentences.

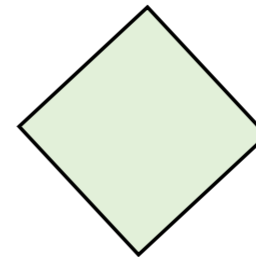


This is a triangle

It has sides.

It has 3 vertices.

1 mark



This is a _____

It has sides.

It has vertices.

2 marks

Have a go at the shape assessment to see how much you have learned!

End of Lesson 1

**Skill: I can measure length
in centimetres (cm)!**

Rapid Recall

There are some socks on a washing line.

The socks are spotty, stripy or plain.



Complete the tally chart.

Sock	Tally
spotty	
stripy	
plain	

Big Question

Here are shadows of some 3D shapes.

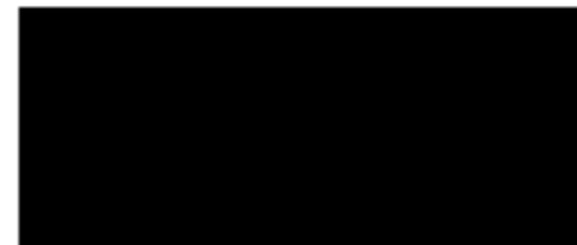
What could they be?



Big Question

Here are shadows of some 3D shapes.

What could they be?



Some possible answers:

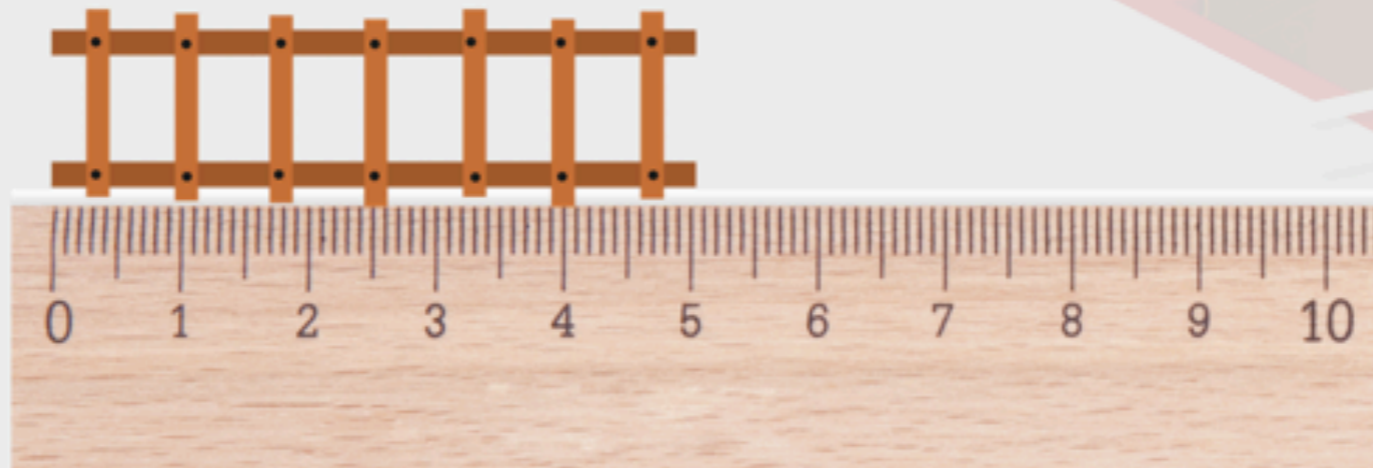
Sphere/ Cylinder/ Cone
Cube/ Square based pyramid
Triangular prism
Cuboid

How long are these objects in centimetres?

A.



B.



How long are these objects in centimetres?



A.

6cm



B.


5cm

Use a ruler to draw the lines.

a) 12 cm long



b) 7 cm long

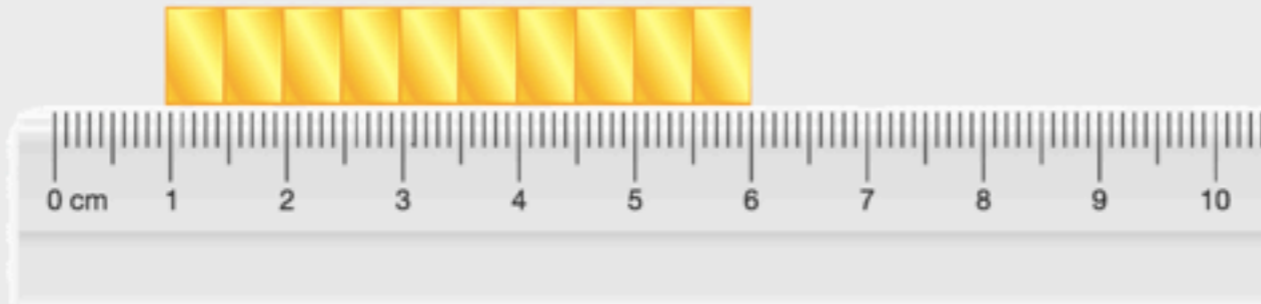


c) 8 cm long



Varied Fluency 4

Match the measurement to the object.

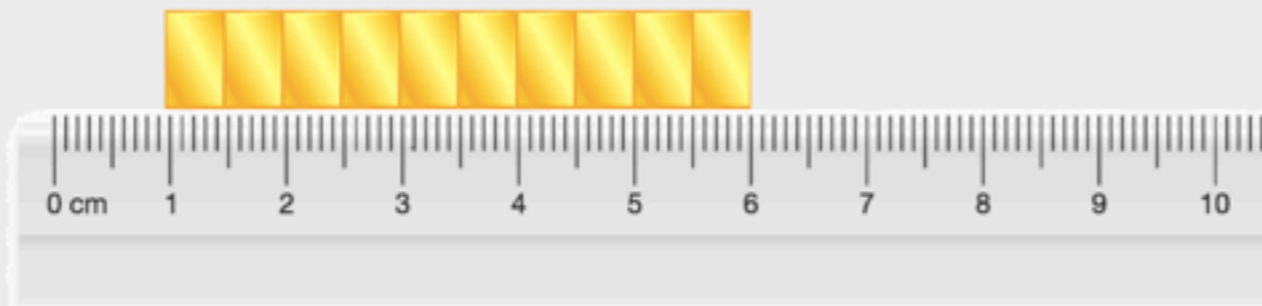


5cm

4cm

3cm

Match the measurement to the object.

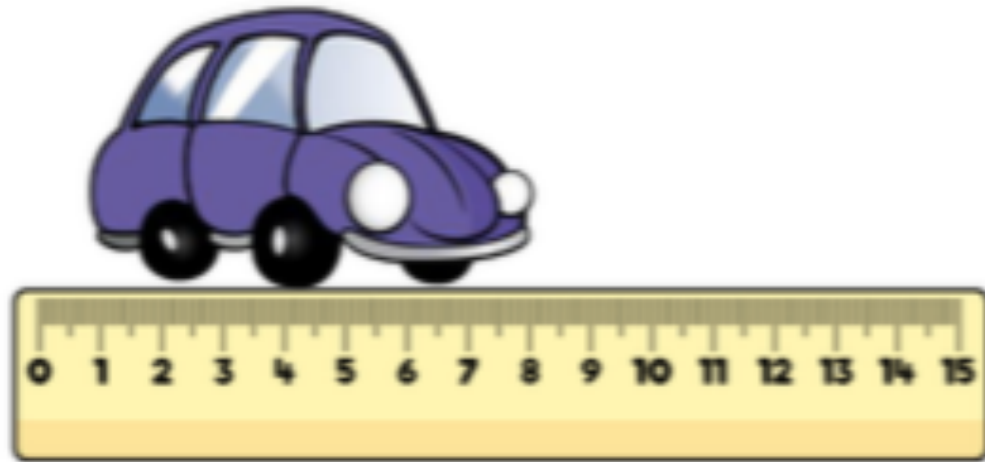


5cm

4cm

3cm

Mo has used the ruler to measure the length of the car.



Mo says the car is 8 centimetres long.
Do you agree?
Explain your answer.

6a. Abdul's toy bottle measures between 10cm and 15cm.

What are the possible measurements his bottle of drink could be?



Mo has used the ruler to measure the length of the car.



Mo says the car is 8 centimetres long.
Do you agree?
Explain your answer.

Mo is incorrect because he has not lined the car up with the 0 marker. If he had measured from 0 he would see that the car is 7 cm long.

6a. Abdul's toy bottle measures between 10cm and 15cm.

What are the possible measurements his bottle of drink could be?



6a. Various possible answers, for example: 11cm, 12cm, 13cm and 14cm.

Activity

5a. How long are these objects in centimetres?



VF

6a. Sam draws a 3cm line. He starts at the arrow. What number will he finish at?



VF

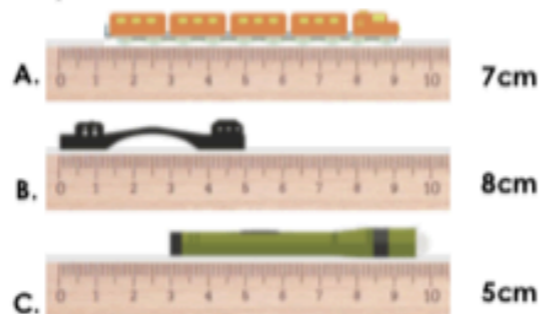
7a. True or false?

This flower is 5cm long.



VF

8a. Match the measurement to the toy object.



VF

4b. Which is the odd one out?



Explain your answer.



R

5b. Niall and Sarah are measuring the length of a shape.



Niall says,



The shape is 7cm long.

Sarah says,



This shape is 9cm long.

Who is correct? Explain your answer.



R

6b. Pippa's colouring pencils measure between 9cm and 14cm.

What are the possible measurements her colouring pencils could be?



PS

End of Lesson 2

**Skill: I can measure length
in metres (m)!**

Rapid Recall

Ron has this money in his hand.

He has 29p in his pocket.

How much money does
Ron have altogether?



Rapid Recall

Ron has this money in his hand.

He has 29p in his pocket.

How much money does
Ron have altogether?

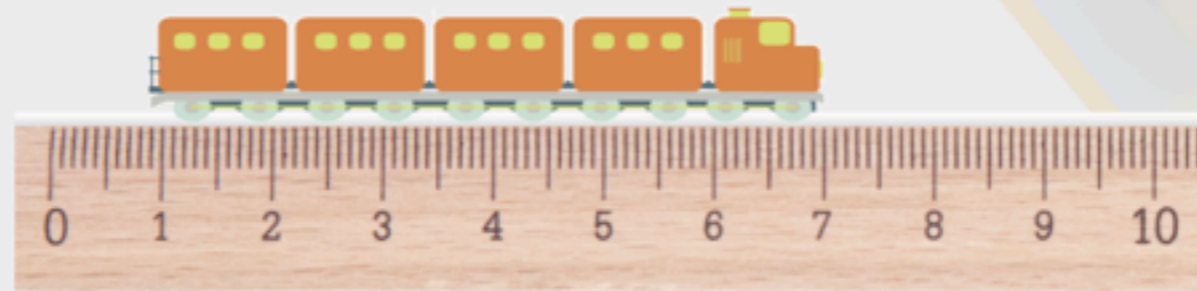


Answer:

Ron has 46p in his hand
 $46p + 29p = 75p$

Big Question

James and Laura are measuring the length of a train.



James says,



The train is 5cm long.

Laura says,

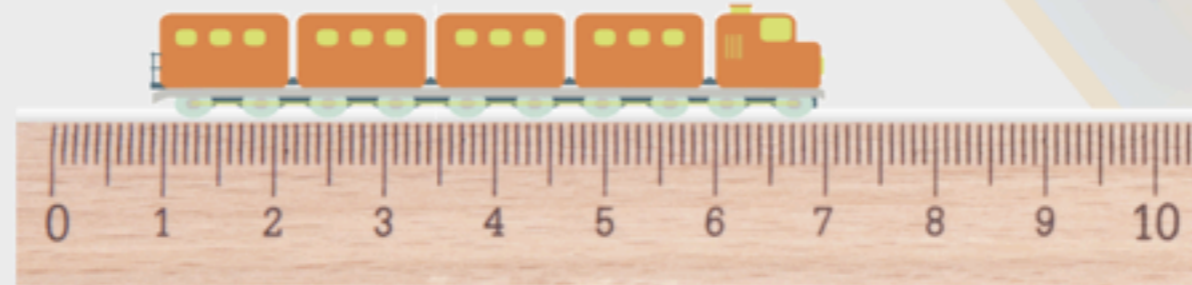
The train is 6cm long.



Who is correct? Explain your answer.

Big Question

James and Laura are measuring the length of a train.



James says,



The train is 5cm long.

Laura says,

The train is 6cm long.



Who is correct? Explain your answer.

Laura is correct because she has taken into account that the object is measured from 1cm and not 0cm.

Would you use a centimetre ruler to measure your classroom?



Can you think of a bigger unit of measurement for length that would be better?

How many centimetres (cm) are there in 1 metre (m)?

Would you use a centimetre ruler to measure your classroom?

No, this unit of measurement is too small to measure a room.



Can you think of a bigger unit of measurement for length that would be better?

metres - m

How many centimetres (cm) are there in 1 metre (m)?

100cm = 1m

Match the object to the estimated length.

play
house



11m

coach



67cm

suitcase



2m 51cm

not to scale

Match the object to the estimated length.

**play
house**

coach

suitcase



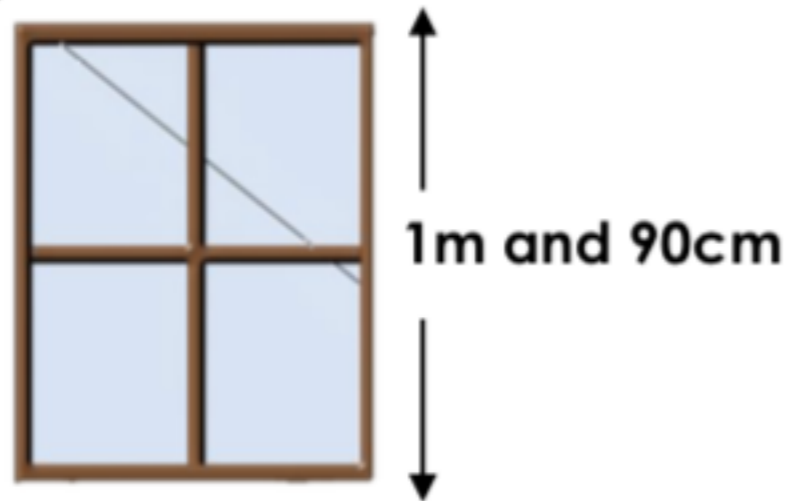
not to scale

11m

67cm

2m 51cm

1b. True or false? This window is more than 1m high.



not to scale

VF

3b. Circle the measurement that is the best estimate for the height of a rabbit.



30cm

2m 60cm

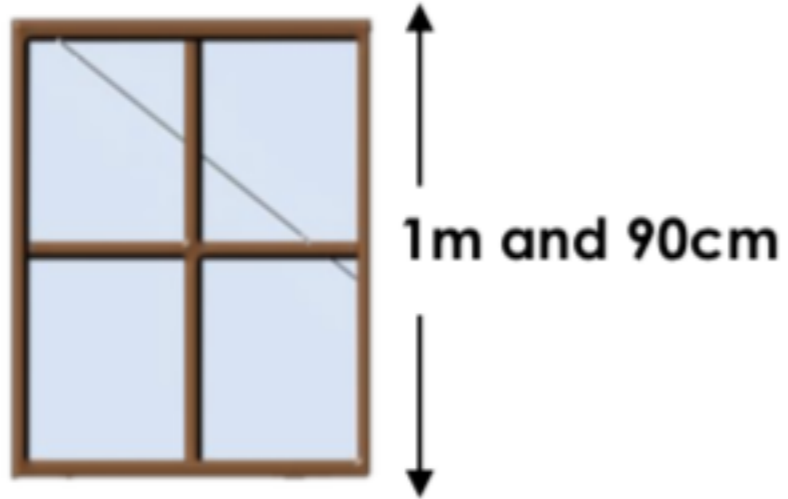
4m 80cm



not to scale

VF

1b. True or false? This window is more than 1m high.



not to scale

VF

True

3b. Circle the measurement that is the best estimate for the height of a rabbit.



30cm

2m 60cm

4m 80cm



not to scale

VF

30cm

Circle the objects that you would measure in metres. Tick the objects that you would measure in centimetres.



Amir has a metre stick.

He wants to measure the length of his classroom.

I can't measure the length of the classroom because my metre stick isn't long enough.



Explain to Amir how he could measure the length of his classroom.

Circle the objects that you would measure in metres. Tick the objects that you would measure in centimetres.



Circle: Elephant, School and Tree.

Tick: Pencil, Apple, Tag and Teacup.

Amir can measure the length of the classroom by putting a marker at the end of the metre stick and then starting again at that point, moving his metre stick as he measures.

Amir has a metre stick.

He wants to measure the length of his classroom.

I can't measure the length of the classroom because my metre stick isn't long enough.



Explain to Amir how he could measure the length of his classroom.

Activity

5a. True or false? This ladder is less than 1m long.



☆ *not to scale* VF

6a. Choose the correct word to complete the statement.

The classroom door is than 3 metres and 55 centimetres.

longer

shorter

☆ VF

7a. Circle the measurement that is the best estimate for the height of a giraffe.



2m 75cm

4m 65cm

99cm

☆ *not to scale* VF

8a. Match the object to the estimated length.

paddling pool



17cm

carrot



8m

bus



1m 45cm

☆ *not to scale* VF

4b. Use the digit cards to estimate a suitable length for these objects.

coach m and 9 cm

surf board m and cm

9 1 2 0

☆ PS

5b. Julia has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
street light cucumber hippo	ball meerkat toy

Has she sorted them correctly? Explain your answer.

☆ X

6b. Simon is measuring objects. He says,



0cm 50cm 1m 1m 50cm



I think the snake is 1m and 35cm.

Is he correct? Explain your answer

☆ X

End of Lesson 3

**Skill: I can compare
lengths!**

Rapid Recall

2 minutes to write down as many number bonds to 70 as possible.

Big Question

5



Daddy Bear is 2 metres tall.

Baby Bear is half as tall as Daddy Bear.

a) How tall is Baby Bear?

b) Mummy Bear is taller than Baby Bear, but shorter than Daddy Bear.

How tall could Mummy Bear be?

Big Question

5



Daddy Bear is 2 metres tall.

Baby Bear is half as tall as Daddy Bear.

a) How tall is Baby Bear?

b) Mummy Bear is taller than Baby Bear, but shorter than Daddy Bear.

How tall could Mummy Bear be?

Daddy Bear is 2 metres tall.

Baby Bear is half as tall as Daddy Bear.

a) How tall is Baby Bear?

 m

b) Mummy Bear is taller than Baby Bear, but shorter than Daddy Bear.

How tall could Mummy Bear be?

e.g. Mummy Bear could be and

 tall.

Arrange the measurements from shortest to longest.

7 centimetres

20cm

9 centimetres

Arrange the measurements from shortest to longest.

7 centimetres

20cm

9 centimetres

7 centimetres

9 centimetres

20cm

7b. Which statements are false?

A. $12\text{m} < 12\text{cm}$

B. $36\text{ cm} < 56\text{cm}$

C. $\text{five metres} = 5\text{cm}$



VF

8b. Fill in the blanks to make the statements true.

7m is _____ 7cm

15cm is _____ 15m

1m is _____ 100cm

longer than

shorter than

the same as



VF

7b. Which statements are false?

A. $12\text{m} < 12\text{cm}$

B. $36\text{ cm} < 56\text{cm}$

C. $\text{five metres} = 5\text{cm}$



VF

A and C are false.

7m is longer than 7cm.
15cm is shorter than 15m.
1m is the same as 100cm.

8b. Fill in the blanks to make the statements true.

7m is _____ 7cm

15cm is _____ 15m

1m is _____ 100cm

longer than

shorter than

the same as



VF

Compare the measurements using $<$, $>$
or $=$

$55 \text{ cm} + 10 \text{ cm}$	<input type="text"/>	$55 \text{ cm} - 10 \text{ cm}$
$42 \text{ m} + 6 \text{ m}$	<input type="text"/>	$42 \text{ m} + 7 \text{ m}$
$6 \text{ cm} - 5 \text{ cm}$	<input type="text"/>	$6 \text{ m} - 5 \text{ m}$
$80 \text{ m} - 5 \text{ m}$	<input type="text"/>	$70 \text{ m} + 5 \text{ m}$

A green pencil is twice as long as a blue pencil.



Using this, complete the statements using **longer than**, **shorter than** or **equal to**.

3 green pencils are _____ 2 blue pencils

2 green pencils are _____ 5 blue pencils

4 green pencils are _____ 8 blue pencils

Compare the measurements using $<$, $>$ or $=$

$$55 \text{ cm} + 10 \text{ cm} > 55 \text{ cm} - 10 \text{ cm}$$
$$42 \text{ m} + 6 \text{ m} < 42 \text{ m} + 7 \text{ m}$$
$$6 \text{ cm} - 5 \text{ cm} < 6 \text{ m} - 5 \text{ m}$$
$$80 \text{ m} - 5 \text{ m} = 70 \text{ m} + 5 \text{ m}$$

3 green pencils are longer than 2 blue pencils.

2 green pencils are shorter than 5 blue pencils.

4 green pencils are equal to 8 blue pencils.

A green pencil is twice as long as a blue pencil.



Using this, complete the statements using **longer than**, **shorter than** or **equal to**.

3 green pencils are _____ 2 blue pencils

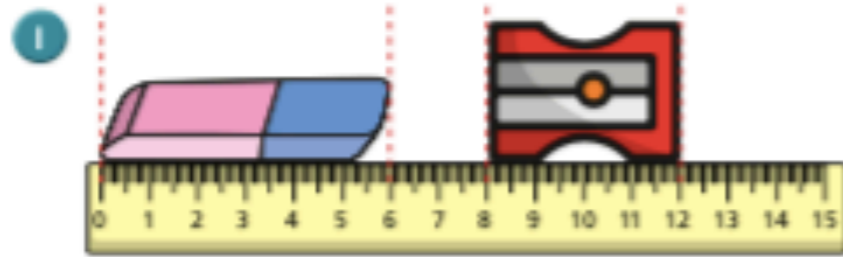
2 green pencils are _____ 5 blue pencils

4 green pencils are _____ 8 blue pencils

Activity

Compare lengths

White
Rose
Maths



Choose a word to complete the sentences.

shorter

longer

The rubber is _____ than the sharpener.

The sharpener is _____ than the rubber.

2 Write $<$, $>$ or $=$ to compare the statements.

a) 9 cm 23 cm

b) fifty metres 50 m

c) one metre 1 cm

3 Write digits in the boxes to make the statements correct.

a) cm $<$ 41 cm

b) 14 m $<$ m

c) 14 cm $>$ cm

d) 12 m $<$ m $<$ 20 m

Is there more than one answer for each?

4 Would you measure each one using centimetres or metres?

Tick your answer.

centimetres metres

a) the height of a baby

b) the length of a pencil

c) the height of a school

d) the height of your teacher

What else would you measure in metres?

End of Lesson 4

Apply everything you
have learned this week!

You will find 3 different challenges below and lots more if you follow this link:
<https://nrich.maths.org/13843>

Little Man - <https://nrich.maths.org/4789>

How Tall? - <https://nrich.maths.org/7536>

Sizing Them Up - <https://nrich.maths.org/4962>