



Aim High... Fly High...

Year 3 Maths Summer term week 10

Week Commencing 13<sup>th</sup> July 2020

We are continuing the shape topic.

If there are any difficulties you encounter, please send me an email and I will try to help.

Please follow Summer term week 10 w/c 29<sup>th</sup> June.

This week we would like you to complete these tasks:

Lesson 1 – Draw accurately <https://www.bbc.co.uk/bitesize/articles/zcxy6g8>

Lesson 2- Recognise and describe 2D shapes <https://www.bbc.co.uk/bitesize/articles/zkhbp4j>

Lesson 3- Recognise and describe 3D shapes <https://www.bbc.co.uk/bitesize/articles/zwscf82>

Lesson 4- Tell the time to 5 minutes <https://www.bbc.co.uk/bitesize/articles/zjf4ydm>

Lesson 5- Friday Maths challenge

The answers have been uploaded to Starz. I have included the answers to the fractions assessment at the end of this document.

There are links to BBC bitesize extensions next to the lessons above.

Have fun!

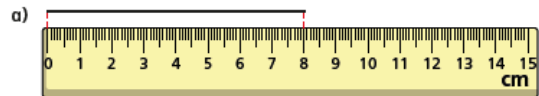
Mr Butler

Lesson 1 – Draw accurately <https://vimeo.com/432264831>

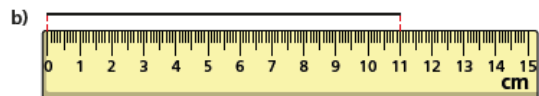
Draw accurately



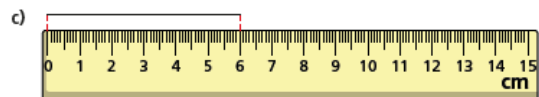
1 How long is each line?



cm



cm



cm

2 Draw two lines that are each 5 cm long.



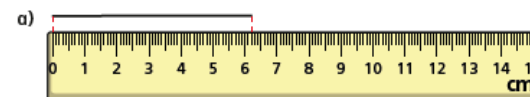
3 Dani says the line is 10 cm long.



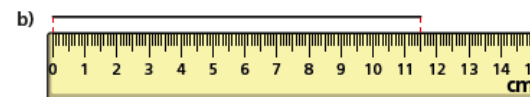
a) What mistake has Dani made?

b) How long is the line?  cm

4 What is the length of each line in millimetres?



mm



mm

c) \_\_\_\_\_

mm



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.



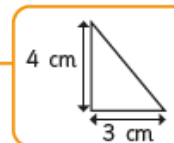
b) Measure the length of the diagonal.

Give your answer in millimetres.

 mm

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.

 cm


## Lesson 2 – Recognise and describe 2D shapes <https://vimeo.com/432264925>

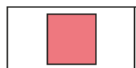
### Recognise and describe 2D shapes



1 Match the shapes to the labels.



square



pentagon



triangle



hexagon

2 Use the words to label the shapes.

rectangle

hexagon

circle

triangle

pentagon

a)



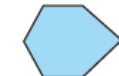
c)



b)



d)



3 Dora and Ron each have a shape.

a)



My shape has three sides, so it is a triangle.



Why is Dora incorrect?

b)



My shape is a house.



Why might Ron think that? Talk to a partner.

What is the mathematical name for Ron's shape?

4 Here are some shapes.

a) Circle all the quadrilaterals.



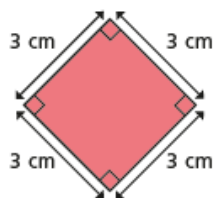
b) Draw three more quadrilaterals.



What do you notice about all the shapes you have drawn?

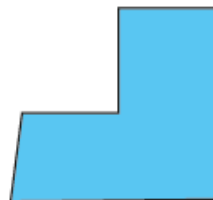
c) Is this shape a square?

Circle your answer.      **yes**      **no**



Compare answers with a partner.

5 This shape is a hexagon.



Why is it a hexagon?

---



---

6 What is the name of each shape?



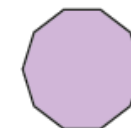

---




---




---

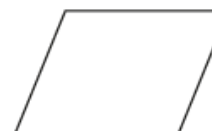



---

How do you know? Talk about it with a partner.

7 Each shape has at least one pair of parallel sides.

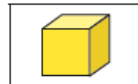
Draw on the shapes to show the parallel sides.



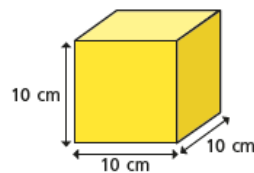
### Lesson 3 – Recognise and describe 3D shapes <https://vimeo.com/432265088>

#### Recognise and describe 3D shapes

- 1 Kim paints the faces of some 3D shapes. She stamps the faces on to a sheet of paper. Match the stamp to the 3D shape.

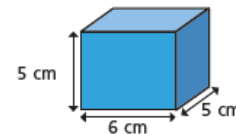
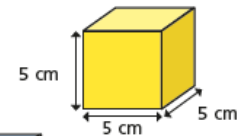


- 2 A cube is a special type of cuboid.

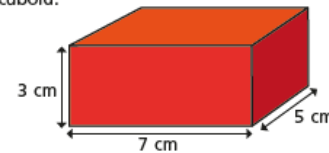


What is special about each face of a cube?  
Talk about it with a partner.

- 3 Which of the shapes is a cube? Tick your answer.



- 4 Here is a cuboid.



What do you notice about the opposite faces of a cuboid?

- 5 Match the 3D shapes to the labels.



square-based  
pyramid

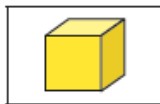
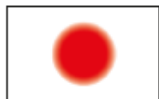
cylinder

cone

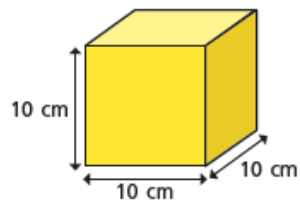
## Recognise and describe 3D shapes



- 1 Kim paints the faces of some 3D shapes. She stamps the faces on to a sheet of paper. Match the stamp to the 3D shape.



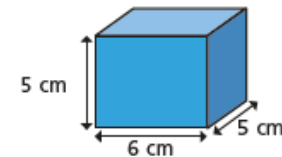
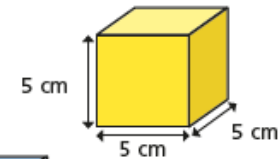
- 2 A cube is a special type of cuboid.



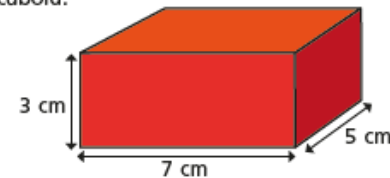
What is special about each face of a cube?  
Talk about it with a partner.



- 3 Which of the shapes is a cube? Tick your answer.



- 4 Here is a cuboid.



What do you notice about the opposite faces of a cuboid?

---



---

- 5 Match the 3D shapes to the labels.



square-based  
pyramid

cylinder

cone

Lesson 4 – Tell the time to 5 minutes <https://vimeo.com/432265268>

### Telling the time to 5 minutes

**1** Label the clock to show the number of minutes past the hour.

**2** Label the clock to show what time would be shown if the minute hand was pointing to each interval.

Is there more than one possible answer for each label?

**3**

The hour hand is pointing just after 5 and the minute hand is pointing to 2, so the time is 2 minutes past 5

What mistake has Ron made?

What time is it? \_\_\_\_\_

**4** What time is shown on each clock?



\_\_\_\_\_ minutes past \_\_\_\_\_



\_\_\_\_\_ minutes past \_\_\_\_\_



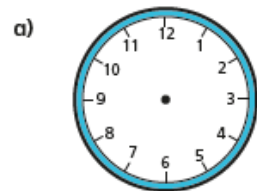
\_\_\_\_\_ minutes to \_\_\_\_\_



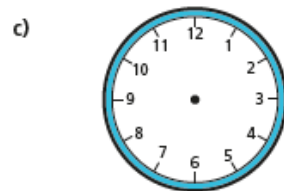
\_\_\_\_\_



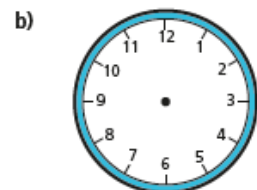
- 5 Draw the hands on the clocks to show the correct times.



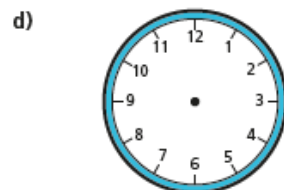
15 minutes past 6



25 minutes to 9



15 minutes to 9



5 minutes to 12

- 6 Jack wants to tell the time, but the hour hand has fallen off the clock.



There are 12 different possible times it could be during a full day.



Do you agree with Jack? \_\_\_\_\_

Talk about it with a partner.



- 7 The minute hand and the hour hand of a clock are both pointing to an even number. It is before midday. What times could it be? Give three possible answers.

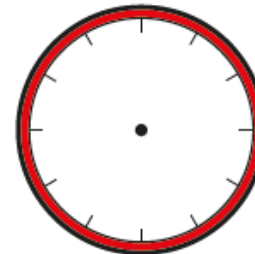
---



---

Compare answers with a partner. Can you find any more?

- 8 The numbers of the clock face were written in Roman numerals but they have been rubbed off. The current time has a V in the hour and a V in the minutes.



What time could it be? Draw your answer on the clock.  
Are there any other answers?

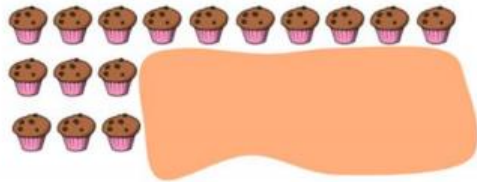
Talk about it with a partner.



## Lesson 5 – Friday Maths Challenge

### Challenge 1

30 cakes are arranged in an array. Some of the cakes are hidden.



How many cakes are hidden?

### Challenge 2

Work out the missing numbers.

$$10 \times 2 = 5 \times \text{blue circle}$$

$$10 + 2 = 5 + \text{orange triangle}$$

$$10 \div 2 = 5 \div \text{green square}$$

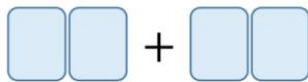
$$10 - 2 = \text{yellow heart} - 5$$

### Challenge 3

Danni has these four digit cards.



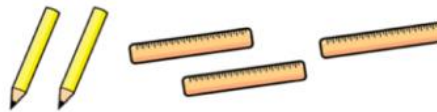
Danni uses all four cards to make two 2-digit numbers. She then adds the two numbers together.



What is the greatest total she can make?

### Challenge 4

Sonny buys 2 pencils and 3 rulers.



Each pencil costs 69p.

Sonny pays with a £5 note and receives £1.07 change.

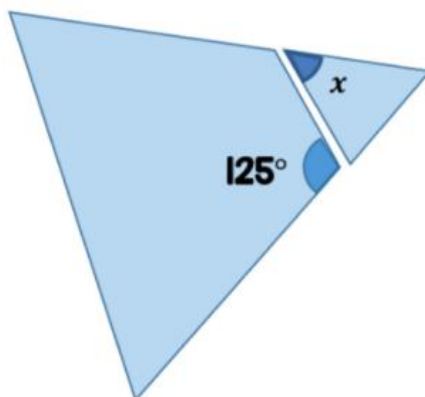
How much does a ruler cost?

### Challenge 5

Adam has an equilateral triangle.

He cuts a corner off the triangle.

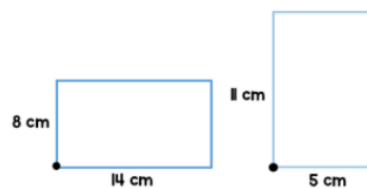
Here are the two pieces.



What is the size of the angle marked x?

### Challenge 6

Here are two rectangles.



The two rectangles are put on top of each other.

They are lined up so the black circles overlap.

The shaded area shows where the two rectangles overlap.

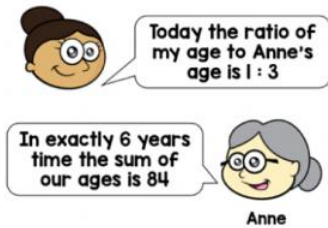


What is the area of the non-shaded parts of the shape?



Aim High... Fly High...

### Challenge 7



How old was Anne this time last year?

### Challenge 8

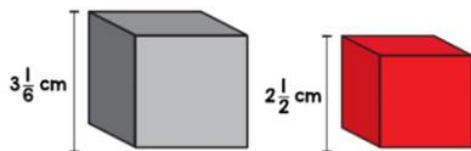
Here is a rule for generating a sequence.

**Double the previous number  
and then subtract 1**

The third term of the sequence is 25.

What is the difference between the first and fifth terms?

### Challenge 9



Jack builds a tower using grey blocks.

Alex builds a tower using red blocks.

The towers are exactly the same height.

What is the minimum number of blocks they each use?

### Challenge 10

A speedboat sets out from a port P on a bearing of  $120^\circ$ .

The speedboat travels at 48 mph.

A fishing boat sets out from port P on a bearing of  $210^\circ$ .

The fishing boat travels at 20 mph.

How far are the two boats apart after 90 minutes?

As a rough guide of difficulty level:

- **Challenge 1 and 2** are suitable for ages 5 to 7.
- **Challenge 3 to 6** are suitable for ages 7 to 11.
- **Challenge 7 to 10** are suitable for ages 11 to 15.

We want everyone to get involved with challenge day,  
so work together to solve as many as you can and  
share your solutions!