

# Year 6

Wednesday 29<sup>th</sup> April 2020

Maths



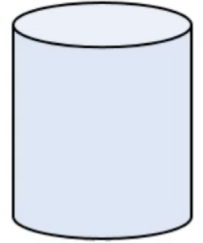
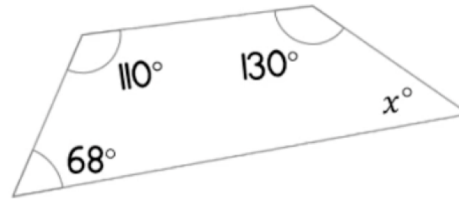
LO: angles in regular polygons.

A video of the lesson is available here.

Summer Term - Week 2 - Lesson 2

This link will only work on the PDF or link above this power point.

1) Work out the missing angle.



2) True or False: Vertically opposite angles are equal.

3) What fraction of the fruits are cherries?

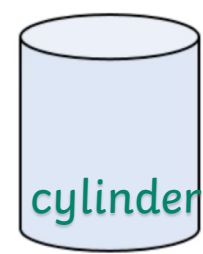
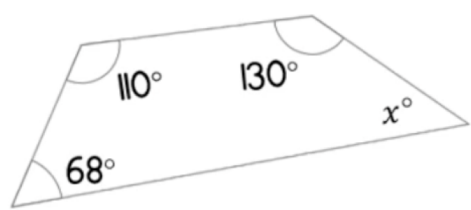


4) Write down the factors of 20

Riddle of the Day:

You go at red, but stop at green. What am I?

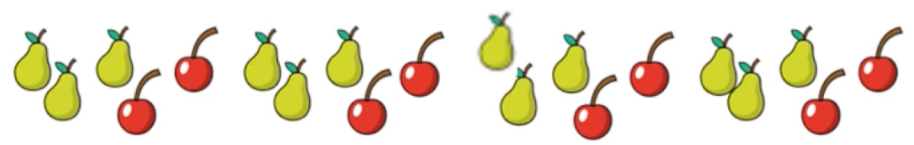
1) Work out the missing angle.



52°

2) True or False: Vertically opposite angles are equal. True

3) What fraction of the fruits are cherries?



$\frac{2}{5}$

4) Write down the factors of 20 1, 2, 4, 5, 10 and 20

Riddle of the Day:

Watermelon! You eat the red part, and you stop eating at the green part.

# Independent work

Independent work continues on the following slide.

There are questions 1-3 and 2 extension questions.

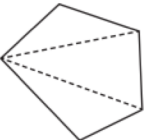



[The video lesson is available here](#)  
Summer Term 1 - Week 2 – lesson 2


# Angles in regular polygons

**1** The sum of the interior angles of a triangle is  $180^\circ$ .  
Split the polygons into triangles to work out the sum of their interior angles. Your lines should not overlap.

The first one has been done for you.

**a)**  number of sides =   
number of triangles =   
 $3 \times 180 =$    
The sum of the interior angles of a pentagon is

**b)**  number of sides =   
number of triangles =   
  $\times 180 =$    
The sum of the interior angles of a hexagon is

**c)**  number of sides =   
number of triangles =   
  $\times 180 =$    
The sum of the interior angles of a heptagon is

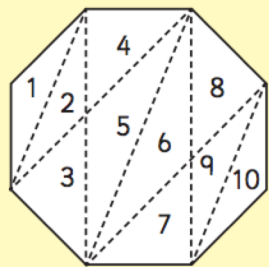
What do you notice about the number of sides compared to the number of triangles?



**2** Complete the table.

Shape	Number of sides	Number of triangles	Sum of interior angles
quadrilateral	4	2	$360^\circ$
pentagon			
nonagon			
decagon			
	6		

**3** Dani is working out the sum of the interior angles of a polygon. Here are her workings.



$10 \times 180 = 1,800^\circ$

Do you agree with Dani? \_\_\_\_\_  
Explain your answer.

**EXT 1:** Rosie, Amir and Eva are drawing polygons.

a)



I have split my polygon into four triangles.

Rosie

What polygon has Rosie drawn? \_\_\_\_\_

b)

The sum of the interior angles of my polygon is  $1,080^\circ$ .



Amir

What polygon has Amir drawn? \_\_\_\_\_

c)



My polygon has more sides than Rosie's but fewer than Amir's.

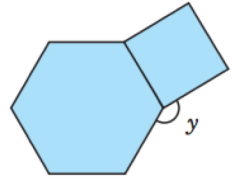
Eva

What is the sum of the interior angles of Eva's polygon?



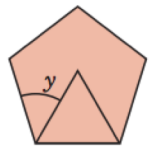
**EXT 2:** Each compound shape is made up of regular polygons. Work out angle  $y$  in each case.

a)



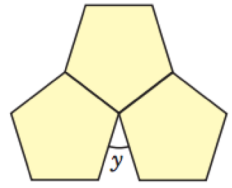
$y =$

d)

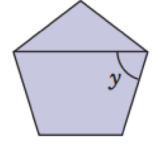


$y =$

b)



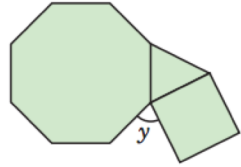
e)



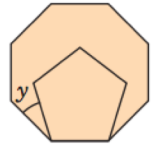
$y =$

$y =$

c)



f)



$y =$

$y =$