## Monday 11th May

Can you calculate angles?


Name the shape and give 4 properties of the shape.

What can you tell me about the angles?

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Name the shape and give 4 properties of the shape.

What can you tell me about the angles?

## Forbidden Words

On the next slide you will see a card containing a shape and 4 forbidden words.
Your task is to describe the shape to your partner without using any of the forbidden words. Can your partner guess the name of the shape you are describing?


Partner A will need to turn away from the whiteboard before the next slide of the powerpoint

| A9 | is |
| :---: | :---: |
|  | Trapezium |

four
parallel
trapezoid quadrilateral



## What do you remember about angles?

Acute Angle -

Obtuse Angle -

Reflex Angle -

Right Angle -


Can you spot examples of all angle types?


1) Complete the bar models.

2) The arrow is turned $90^{\circ}$ anti-clockwise. Which way is the arrow now facing?

Adjacent angles on a straight line sum to $180^{\circ}$


Can you calculate the missing angles?

Angles around a point sum to $360^{\circ}$
Calculate the missing angles


How can we calculate the size of angle $K$ ? Think about what you already know about angles.



Angle $a$ is 3 times the size of angle $b$
Work out the size of the unknown angles.


$$
a+b=180^{\circ}
$$

Where will you begin?

Angle $a$ is 3 times the size of angle $b$
Work out the size of the unknown angles.


$$
a+b=180^{\circ}
$$



Using the bar model, what could we do?

A number of children voted for their favourite colour. A third of the children said blue was their favourite colour.

Four times as many children voted for green as those who voted for yellow.


Work out the size of the angle for each sector in the pie chart.

## Where will you begin?

A number of children voted for their favourite colour. A third of the children said blue was their favourite colour. Four times as many children voted for green as those who voted for yellow.


Work out the size of the angle for each sector in the pie chart.

Could you use the bar model like you did with the previous question?

Answer will appear on the next slide

A number of children voted for their favourite colour.
A third of the children said blue was their favourite colour.
Four times as many children voted for green as those who voted for yellow.


## Tuesday 11th May

Can you calculate angles in a triangle?

## Can you identify the prime factors of 72 ?

## Can you find the prime factors of $56 ?$

Use a factor tree to help you.

Match each diagram to the correct rule.


Angles on a straight line sum to $180^{\circ}$


Angles around a point sum to $360^{\circ}$


Angles in a triangle sum to $180^{\circ}$


In an isosceles triangle, two angles are equal


## Vertically opposite angles are equal

## Triangles

## What do you know about triangles?



## Angles in a triangle $=180^{\circ}$



If you tear off each corner of the triangle and join the straight edges together, what will you see?

HAVE A GO

## Calculate the size of angle y

How will you
calculate the size of angle $y$ ?

## Calculate the size of angle y



How will you calculate the size of angle y?




How will you calculate the missing angles? Think about what you already know.



Calculate the size of angle $y$



Where will we begin to calculate the missing angles this time?

## What do I know already?

How can I use what I already know to calculate the missing angles?

On your whiteboards, calculate angle $g$, $h$ and $i$.


## Wednesday 12th May

Can you calculate and identify angles in quadrilaterals?

Name the shape and give 4 properties.

1.
2.
3.
4.

Name the shape and give 4 properties.

4.

Name the shape and give 4 properties.

1.
2.
3.
4.

## Calculate the missing angles.




What's the same?
What's different?


What do we know that would help calculate the missing angle in this shape?

What is the name of this shape? What can you tell me about the angles?

How can we calculate the missing angles in this shape?
What do we already know?


# What is the shape? What can you tell me about the angels? 

Calculate the missing angle.


## Calculate the missing angle and explain your calculation.




B2 This is a kite.


Work out the values of $x$ and $y$

A3 This is an isosceles trapezium.


Work out the values ol $x$ and $y$

Two isosceles triangles are joined to form a kite.
How is this shape different to the previous shapes?

What do we already know to help calculate the missing angles?

Calculate the missing angles
How is this shape different to the previous shapes?
Two isosceles triangles are joined to form a kite.
a) Work out the sizes of the unknown angles.


What do we already know to help calculate the missing angles?

## Thursday 12th May

Can you calculate angles in regular polygons?

1) Write the size of each angle in an equilateral triangle.

2) The internal angles in a square sum to $\qquad$ ○
3) Calculate $180 \times 6$
4) Calculate $8 \times 180$

The internal angles in a triangle sum to


The internal angles in a quadrilateral sum to ${ }_{(0)}^{(----}$


| Number of sides <br> of polygon | Name of polygon | Sum of internal <br> angles |
| :---: | :---: | :---: |
| 3 | Triangle | 180 |
| 4 | Quadrilateral | 360 |
| 5 | Pentagon |  |

What do you predict will be the sum of the internal angles of a pentagon? Why?

How could we calculate the sun of the angles in a pentagon?

## What could we do here?

| Number of sides <br> of polygon | Name of polygon | Sum of internal <br> angles |
| :---: | :---: | :---: |
| 3 | Triangle | 180 |
| 4 | Quadrilateral | 360 |
| 5 | Pentagon |  |

What about a hexagon?
How could we split this shape to help calculate the internal angles?



| Number of <br> sides of <br> polygon | Name of <br> polygon | Number of <br> triangles | Sum of <br> internal <br> angles |
| :---: | :---: | :---: | :---: |
| 3 | Triangle | 1 | 180 |
| 4 | Quadrilateral | 2 | 360 |
| 5 | Pentagon | 3 | 540 |
| 6 | Hexagon | 1 |  |


| Number of <br> sides of <br> polygon | Name of <br> polygon | Number of <br> triangles | Sum of <br> internal <br> angles |
| :---: | :---: | :---: | :---: |
| 3 | Triangle | 1 | 180 |
| 4 | Quadrilateral | 2 | 360 |
| 5 | Pentagon | 3 | 540 |
| 6 | Hexagon |  |  |

Can you make any predictions for the next two shapes?
Do you notice any patterns?


The shape is made of regular polygons.
Calculate the size of angle $x$

Olivia and Tomek have partitioned the same quadrilateral into triangles in order to find the sum of the interior angles.


The sum of the interior angles measure $720^{\circ}$.


Who is incorrect? Explain their mistake.

