THIRD SPACE LEARNING

Ready-to-go Lesson Slides Year 2

Please note:
2-D and 3-D shapes may be needed for some parts of this lesson.
Paper straws / art straws or similar would also be useful.

Geometry: Properties of Shapes

Lesson 2

Spr3

At Third Space Learning we provide personalised online lessons from specialist maths tutors to support the target groups in your school.

These ready-to-go slides are designed to work alongside our interventions to supplement quality first teaching and raise attainment in maths for all pupils.

To find out more about how you could use our 1-to-1 interventions year-round to boost maths progress in your school then get in touch:

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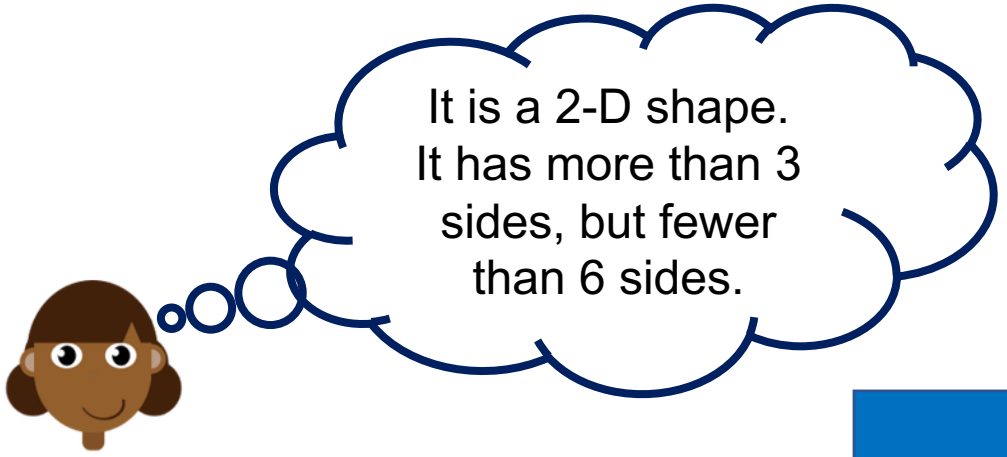
Boosting maths progress through 1-to-1 conversations…

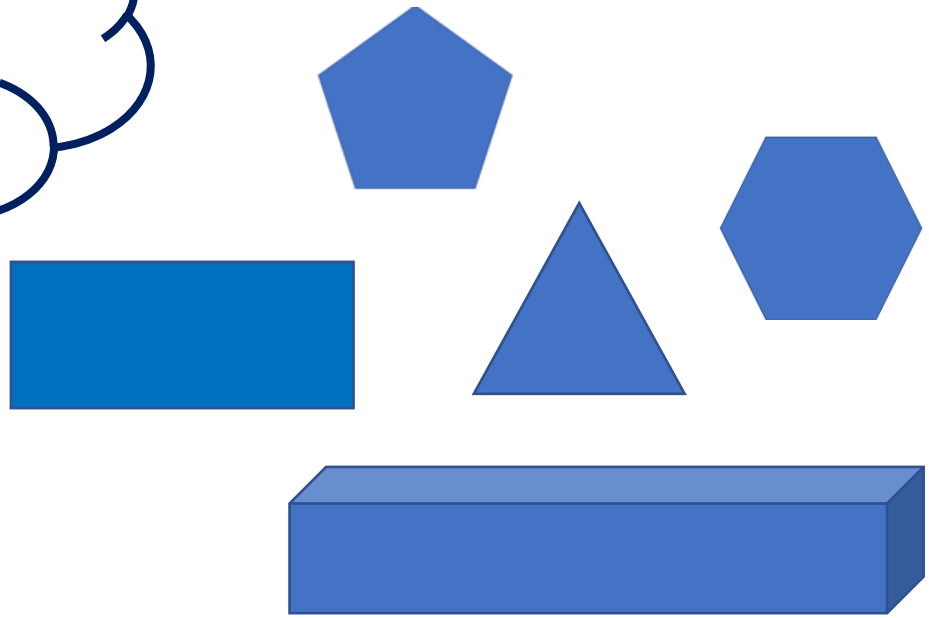
THIRD SPACE LEARNING

To count the sides on 2-D shapes

Starter: What shape could Aisha be thinking of?
Why is there more than one answer?
Are there any shapes that she is definitely not thinking of?
Can you explain your thinking?

Success Criteria:
- ❑ I can accurately count the sides on 2D shapes
- ❑ I know that shapes with the same number of sides don't always look the same





To count the sides on 2-D shapes

Starter: What shape could Aisha be thinking of?
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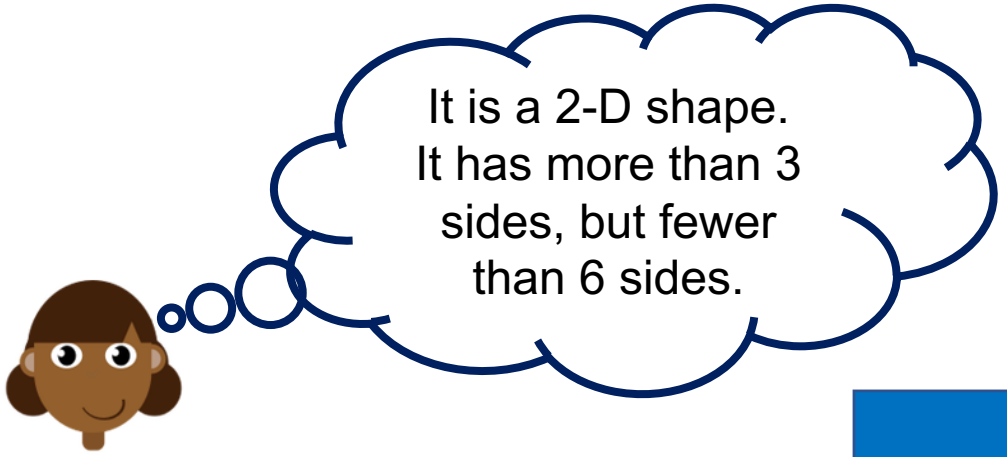
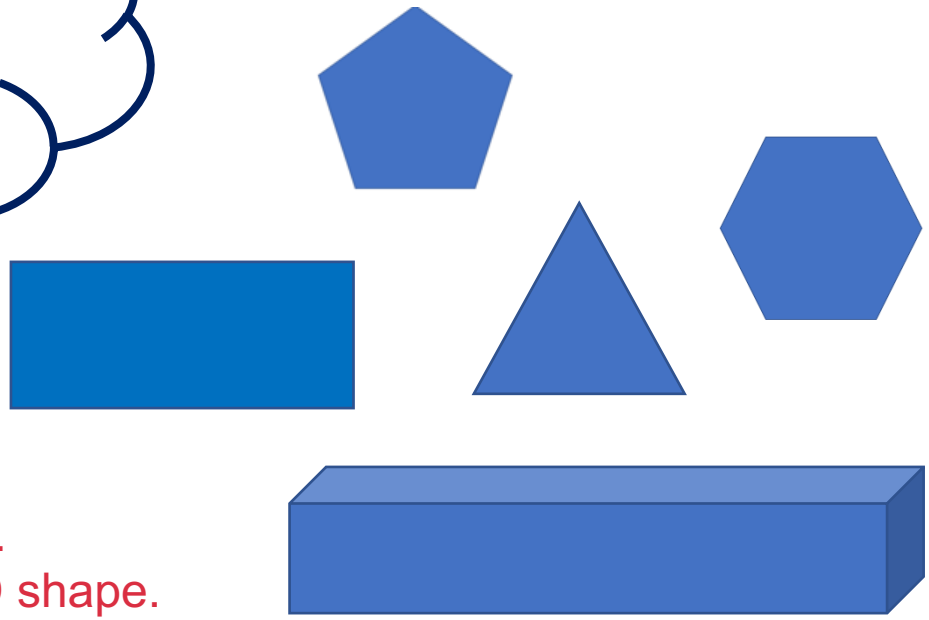




Aisha could be thinking of the rectangle or the pentagon.
It cannot be the triangle as it has 3 sides.
It cannot be the hexagon as it has 6 sides.
It cannot be the cuboid because it is a 3-D shape.

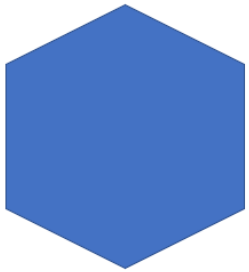
To count the sides on 2-D shapes

Talking Time: Can you match the shape to the correct label?
The label is the number of sides a shape has.
Which shape does not have a label?

five

four

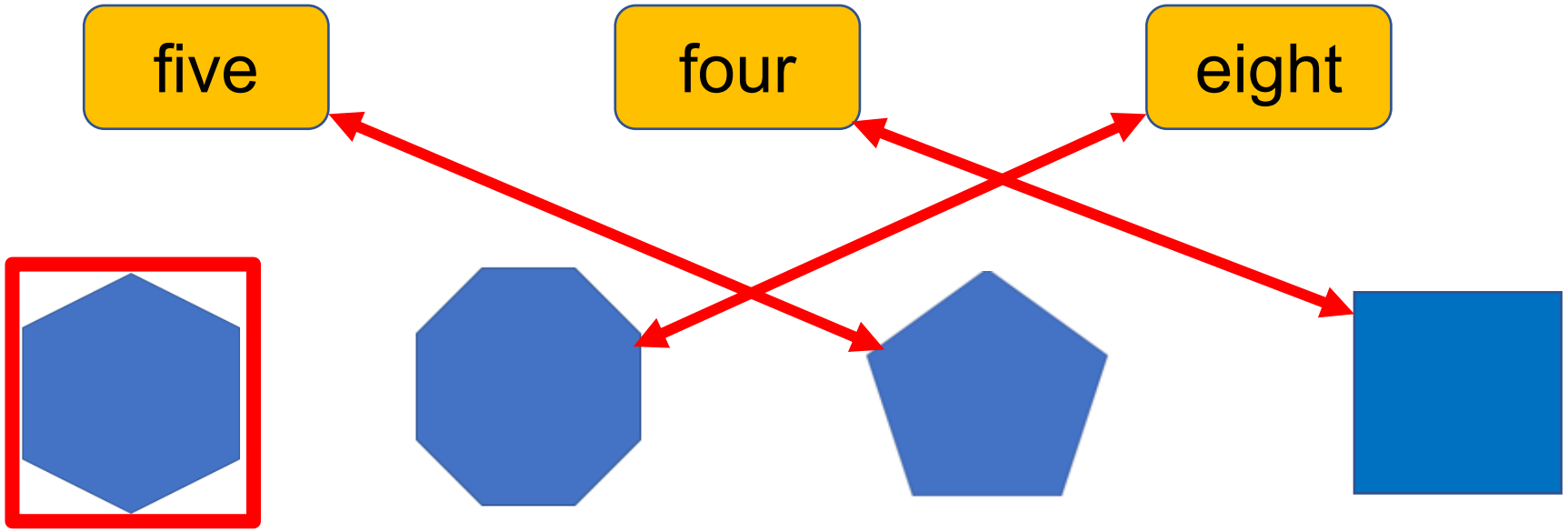
eight



To count the sides on 2-D shapes

Talking Time: Can you match the shape to the correct label?
The label is the number of sides a shape has.
Which shape does not have a label?

The shape that does not have a label is the hexagon.
The hexagon has six sides.



To count the sides on 2-D shapes

Talking Time:

Here is an irregular shape.
Jenson counts the number of sides and says that he thinks that the shape is an octagon.

How can you prove that Jenson is right?

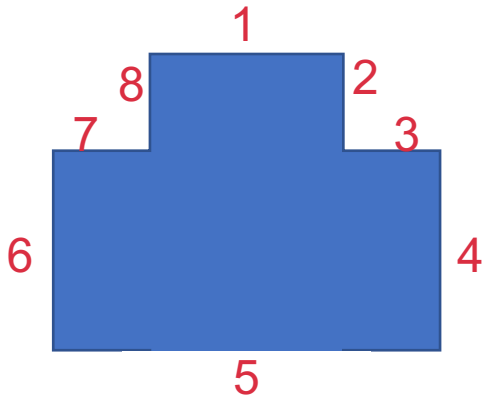
Hint: could we label the sides?

To count the sides on 2-D shapes

Talking Time: Here is an irregular shape.

Jenson counts the number of sides and says that he thinks that the shape is an octagon.

How can you prove that Jenson is right?

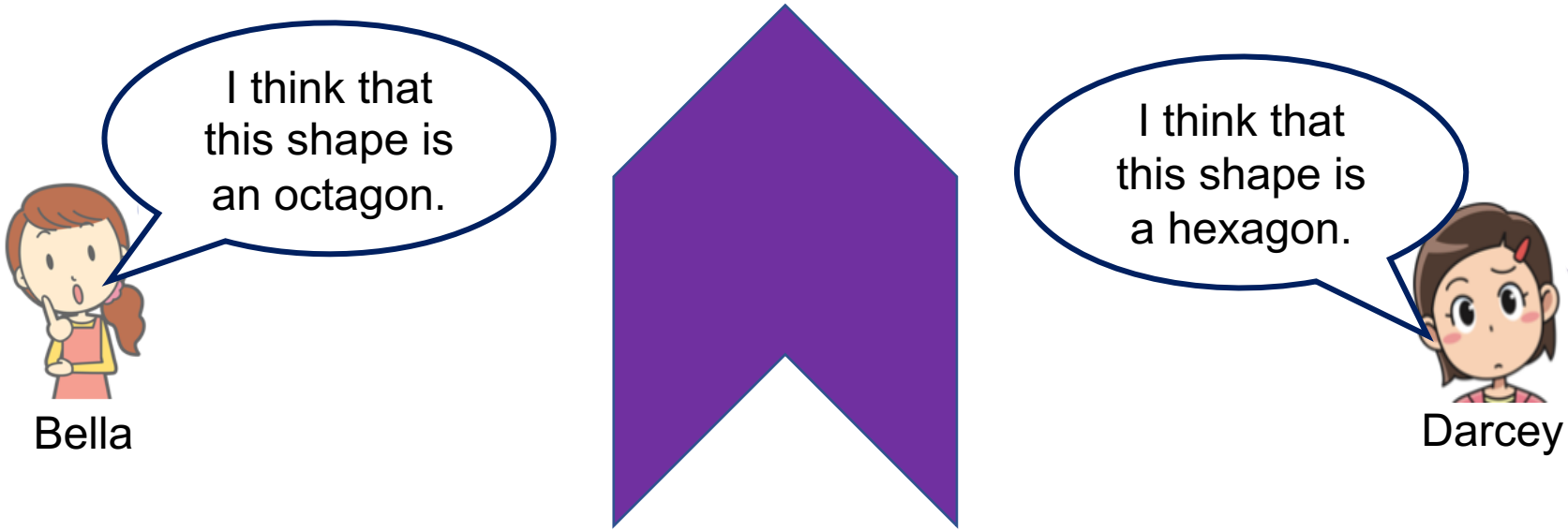


Jenson is right.
Any shape with eight sides is an octagon.
Labelling the sides shows that we have got eight.

Hint: could we label the sides?

To count the sides on 2-D shapes

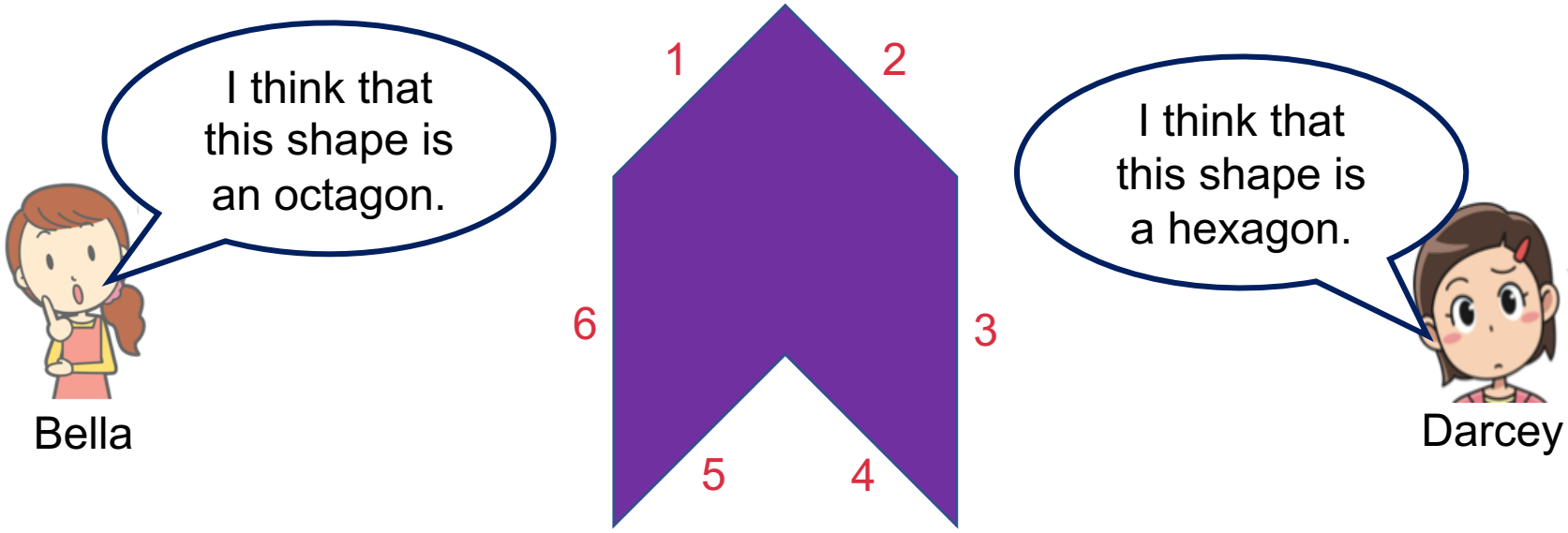
Activity 1: Which of the two children is correct?
How do you know?
How could you label the shape to prove that it is a hexagon or an octagon?



To count the sides on 2-D shapes

Activity 1: Which of the two children is correct?
How do you know?
How could you label the shape to prove that it is a hexagon or an octagon?

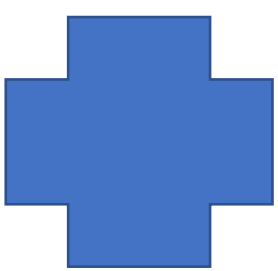
Darcey is correct. The shape is a hexagon.
We can check by labelling the sides.

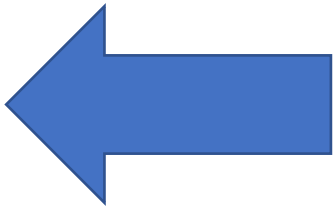


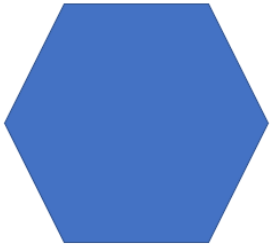
To count the sides on 2-D shapes

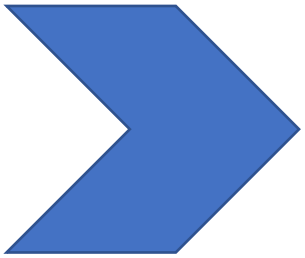
Talking Time:

Which of these 2-D shapes are six-sided or hexagons?
Can you put a ring around each hexagon?
Can you show that you are right by labelling each side?









To count the sides on 2-D shapes

Talking Time:

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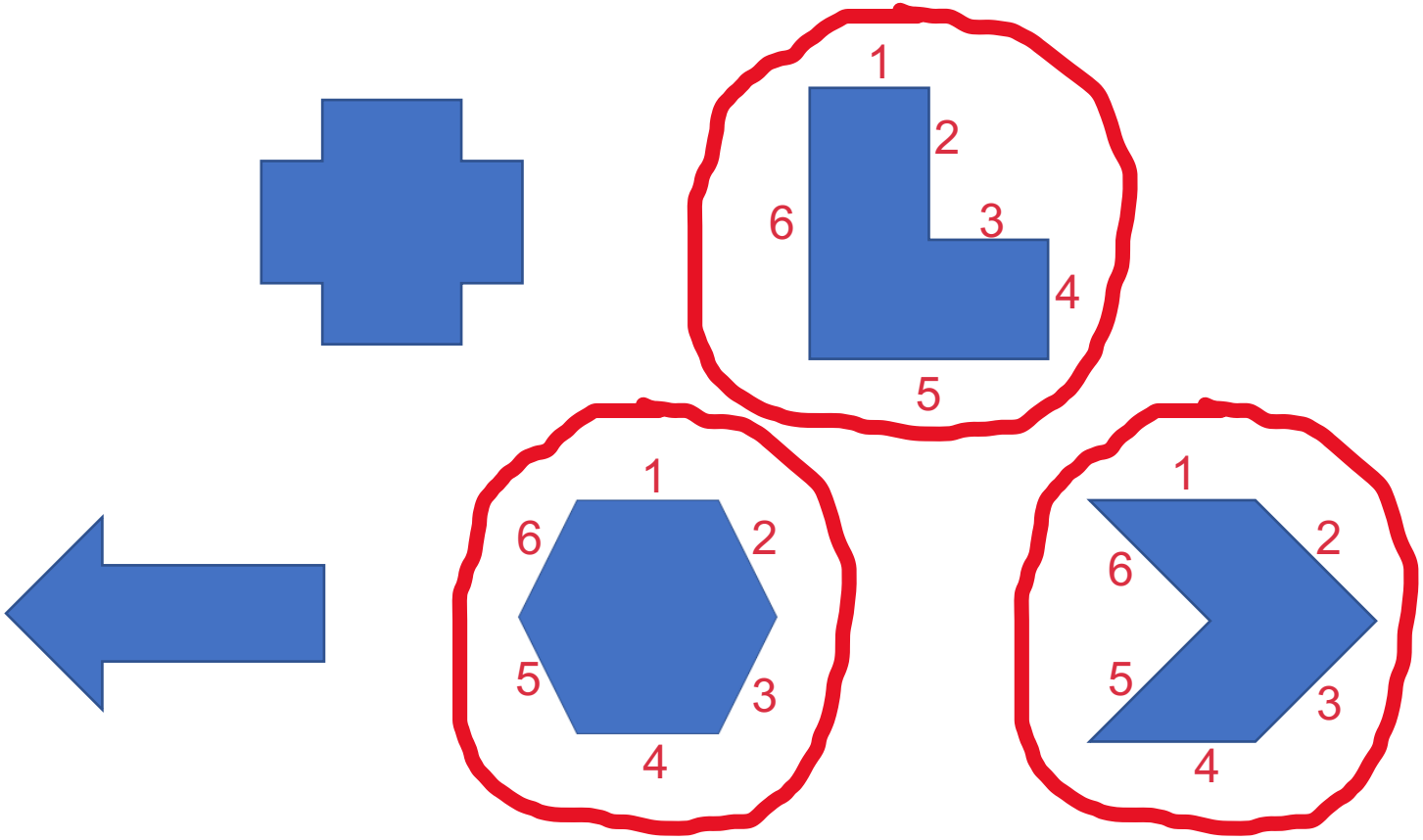
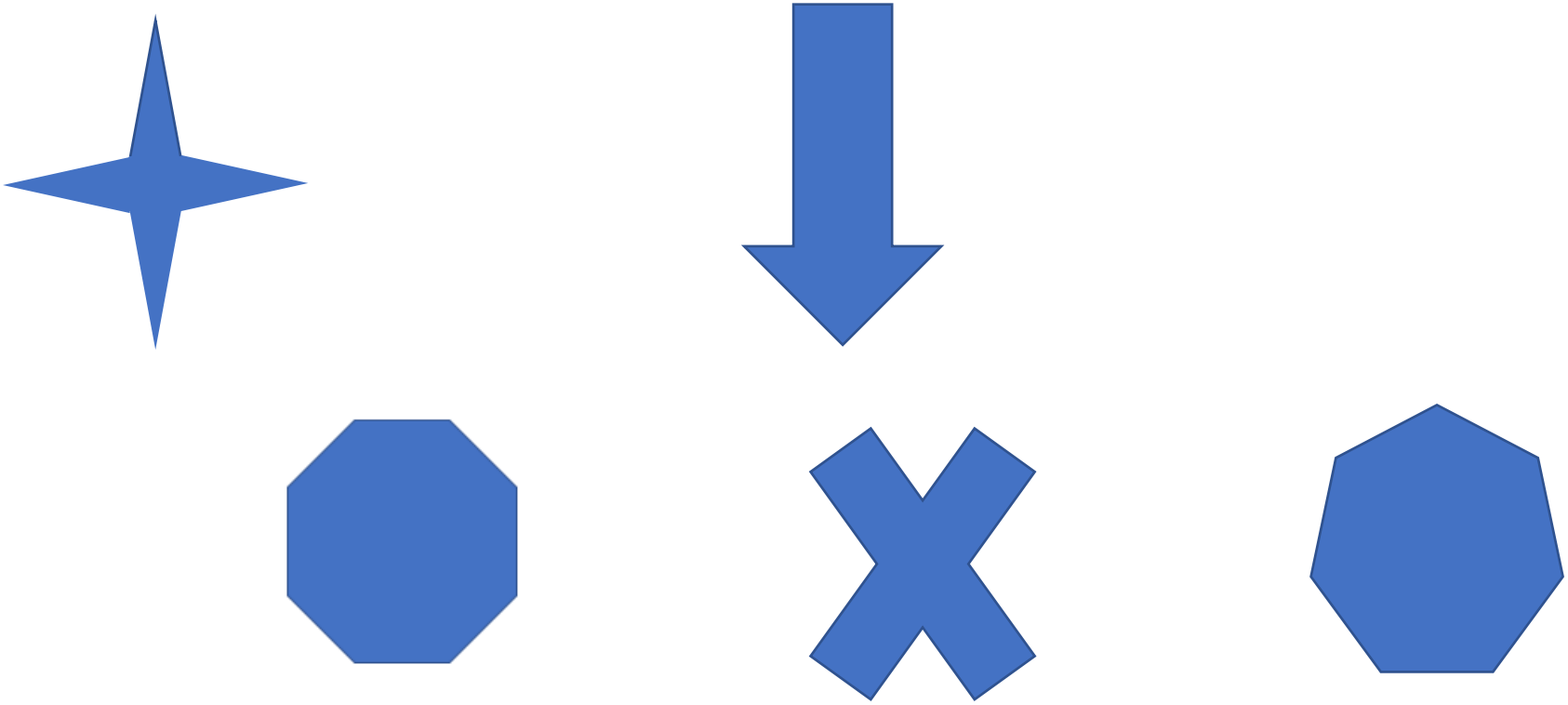


To count the sides on 2-D shapes

Talking Time:

Which of these 2-D shapes are eight-sided or octagons?
Can you put a ring around each octagon?
Can you show that you are right by labelling each side?



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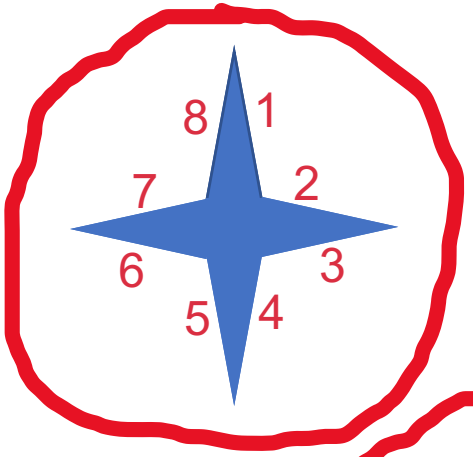
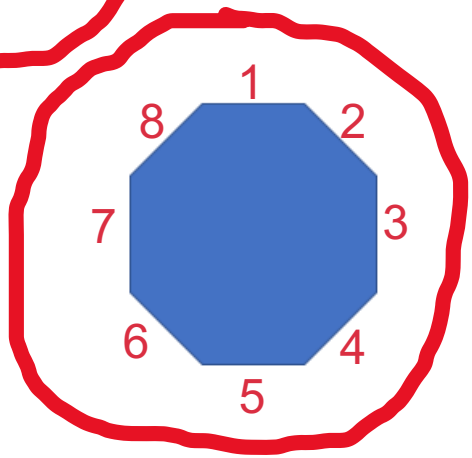
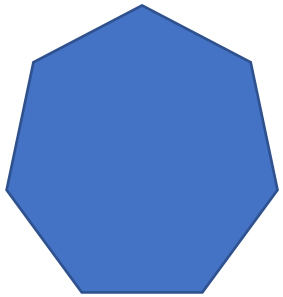


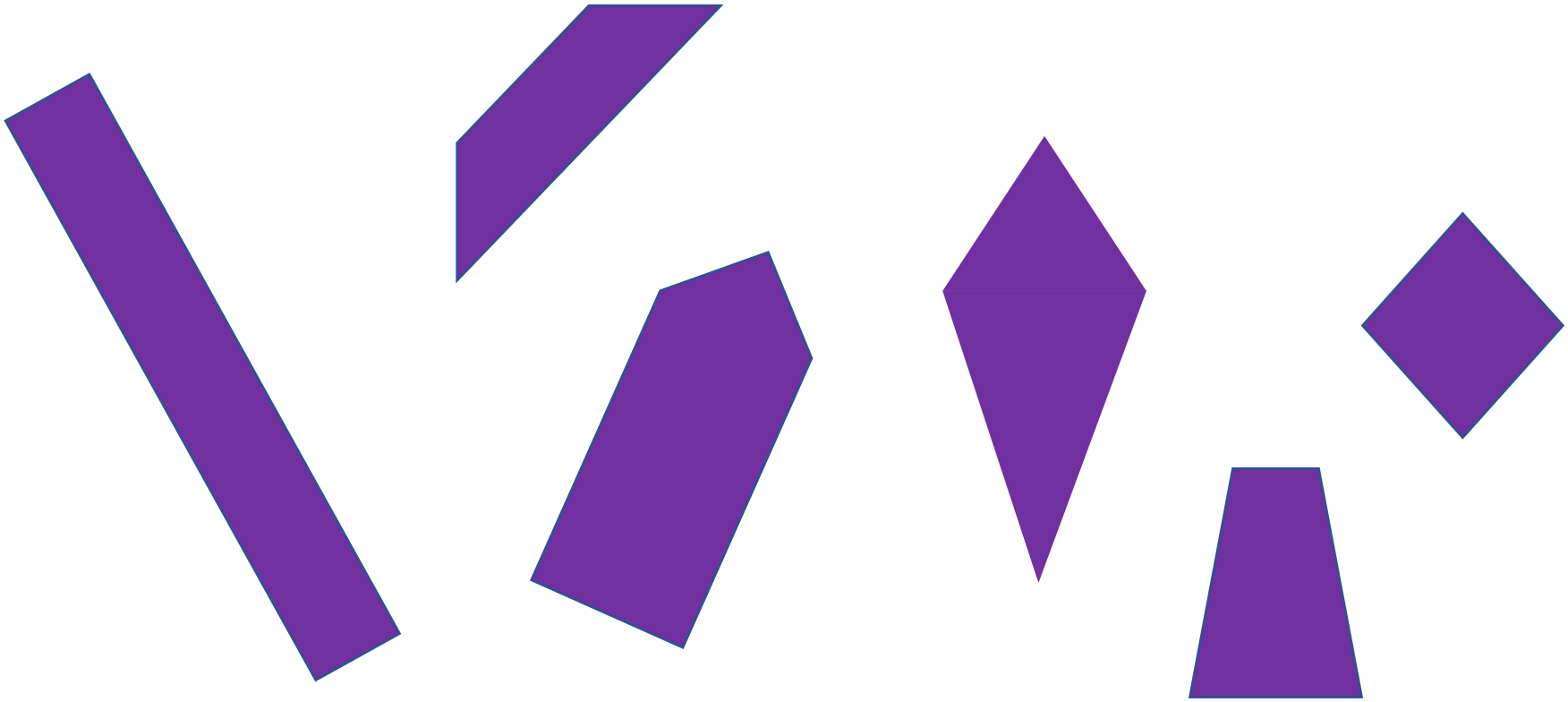




To count the sides on 2-D shapes

Talking Time:

Which one of these 2-D shapes is the odd one out?
Can you put a ring around the odd one out?
Why is it the odd one out?



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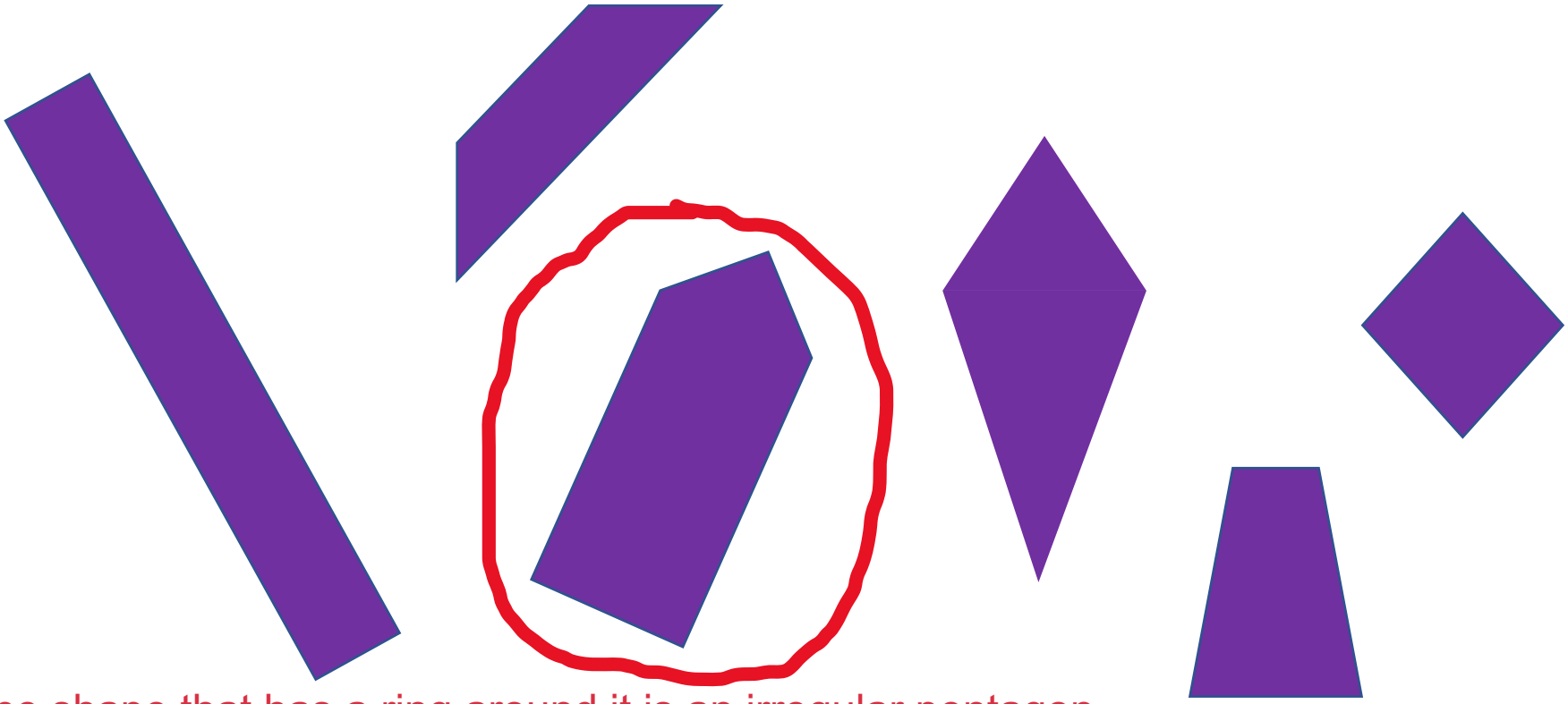


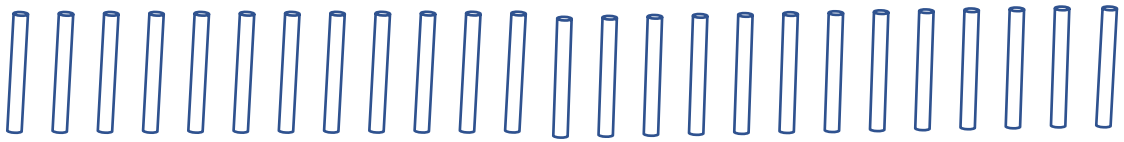
The shape that has a ring around it is an irregular pentagon.
It has 5 sides. The other shapes all have 4 sides.

To count the sides on 2-D shapes

Activity 2:

Ava had 25 paper straws.
She made some pentagons with them.
How many pentagons did she make?

How did you work this out?



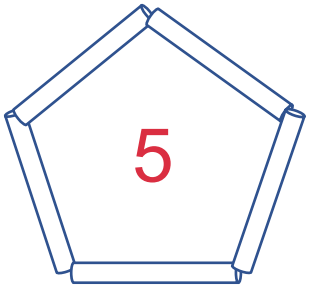
To count the sides on 2-D shapes

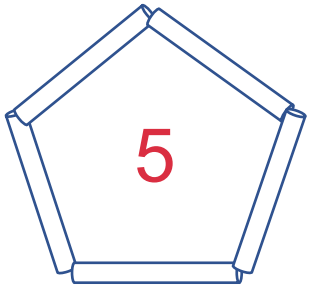
Activity 2:

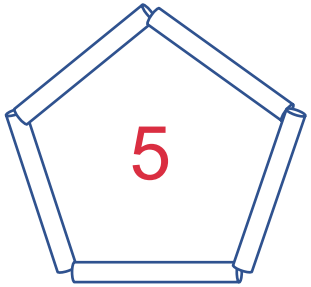
Ava had 25 paper straws.
She made some pentagons with them.
How many pentagons did she make?

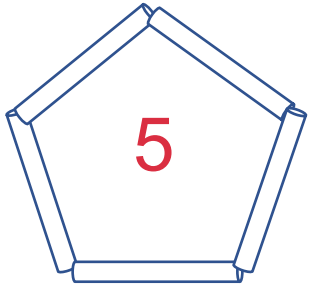
Ava made 5 pentagons.

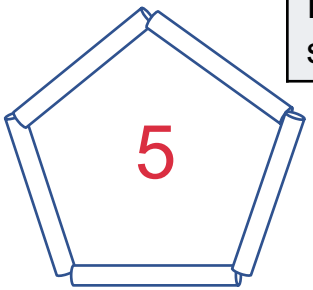
How did you work this out? 5 lots of 5 = 25.











Extension:

What other shapes could Ava make with 25 paper straws? For example, how many hexagons could she make? Would there be any straws left over?
Investigate this and other shapes.

To count the sides on 2-D shapes

Talking Time:

Can you complete this table with the names of the shapes and the number of sides?

name	shape	number of sides

To count the sides on 2-D shapes

Talking Time:

Can you complete this table with the names of the shapes and the number of sides?

name	shape	number of sides
square		4
octagon		8
triangle		3
hexagon		6
pentagon		5

To count the sides on 2-D shapes

Talking Time:

Can you complete this table with the names of the shapes and the number of sides?

name	shape	number of sides

Hint: it might help to start with the number of sides

To count the sides on 2-D shapes

Talking Time:

Can you complete this table with the names of the shapes and the number of sides?

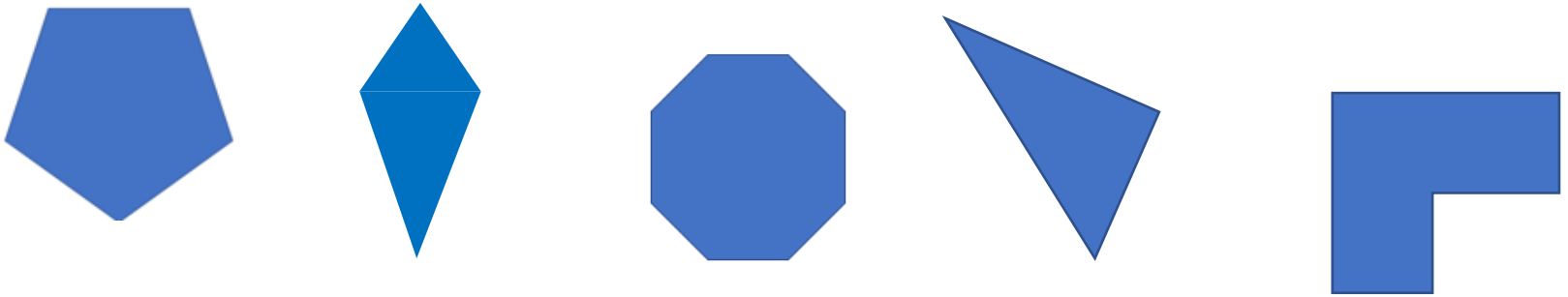
name	shape	number of sides
rectangle		4
pentagon		5
hexagon		6
pentagon		5
octagon		8

Hint: it might help to start with the number of sides

To count the sides on 2-D shapes

Activity 3:

Freddie is ordering the 2-D shapes below.
He is putting the shape with the smallest number of sides first and going up to the shape with the largest number of sides at the end.
Can you help him to order the shapes on the track?



smallest → largest

To count the sides on 2-D shapes

Activity 3:

Freddie is ordering the 2-D shapes below.
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Can you help him to order the shapes on the track?

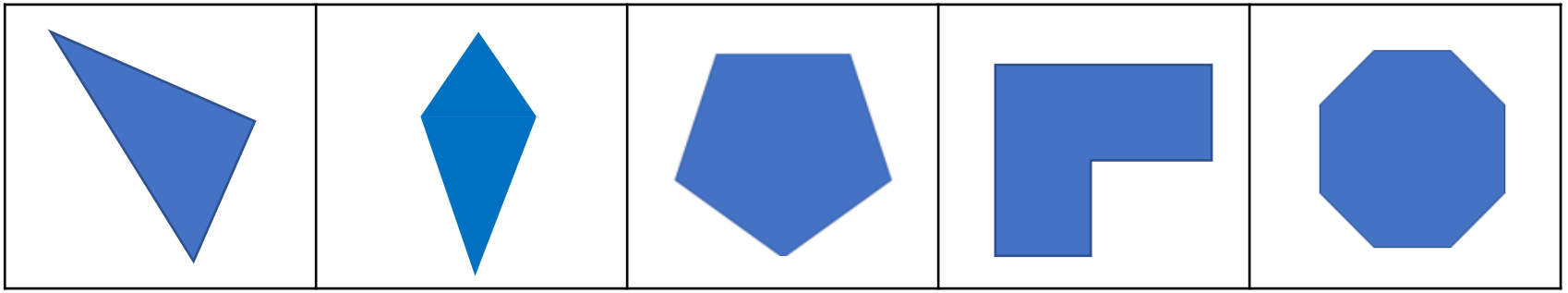
The triangle has 3 sides.

The kite has 4 sides.

The pentagon has 5 sides.

The irregular hexagon has 6 sides.

The octagon has 8 sides.

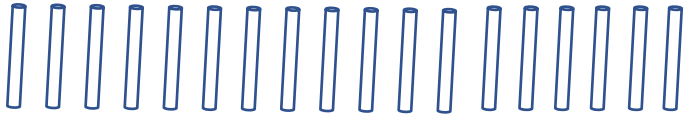


smallest → largest

To count the sides on 2-D shapes

Evaluation:

Ava now has 18 paper straws.
She is working out how many full shapes she can make from the table below. Can you work out the results that Ava will see when she investigates?



Name of shape	How many full shapes from 18 straws?	Any straws left over?
triangle		
square		
hexagon		
octagon		

To count the sides on 2-D shapes

Success Criteria:

- ❑ I can accurately count the sides on 2D shapes
- ❑ I know that shapes with the same number of sides don't always look the same

Evaluation:

Ava now has 18 paper straws.
She is working out how many full shapes she can make from the table below. Can you work out the results that Ava will see when she investigates?

Name of shape	How many full shapes from 18 straws?	Any straws left over?
triangle	6	no
square	4	2
hexagon	3	no
octagon	2	2

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