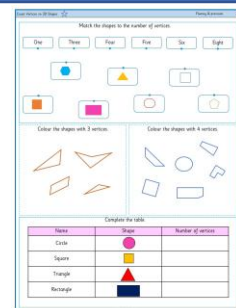


## ★ Geometry – Count Vertices on 2D Shapes

Children understand that a vertex is where two lines meet at a point. They learn to count the number of vertices each shape has. They match the shapes to the number of vertices. They have to colour the shapes that have the specific number of vertices mentioned.

On this sheet, they work with simple shapes.

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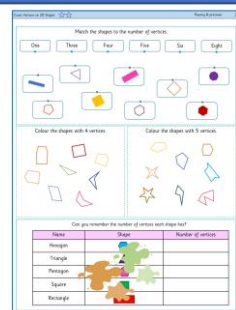


## ★★ Geometry – Count Vertices on 2D Shapes

Children understand that a vertex is where two lines meet at a point. They learn to count the number of vertices each shape has. They match the shapes to the number of vertices. They have to colour the shapes that have the specific number of vertices mentioned.

On this sheet, they have shapes in different orientation and try to recall the number of vertices simple 2D shapes have.

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## ★★★ Geometry – Count Vertices on 2D Shapes

On this sheet, children have a variety of shapes to choose from. They total up vertices from 3 given shapes.

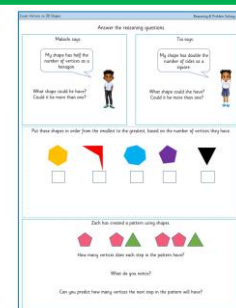
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## Reasoning & Problem Solving

### Geometry – Count Vertices on 2D Shapes

Children answer reasoning questions based on counting sides. They explore trial and error and can use manipulatives to help them solve the problems.





Match the shapes to the number of vertices.

One

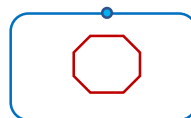
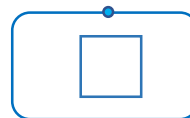
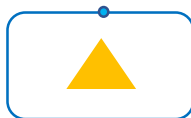
Three

Four

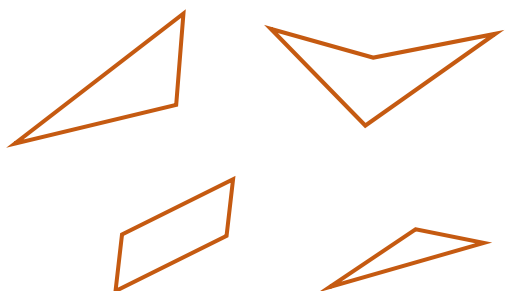
Five

Six

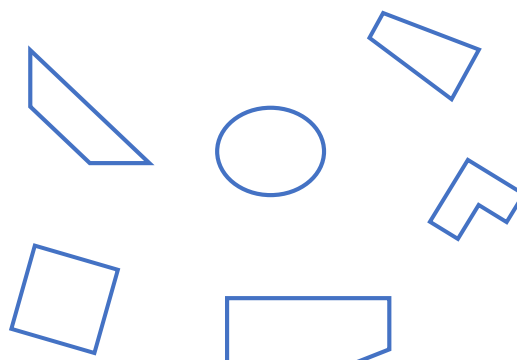
Eight







Colour the shapes with 3 vertices.



Colour the shapes with 4 vertices.

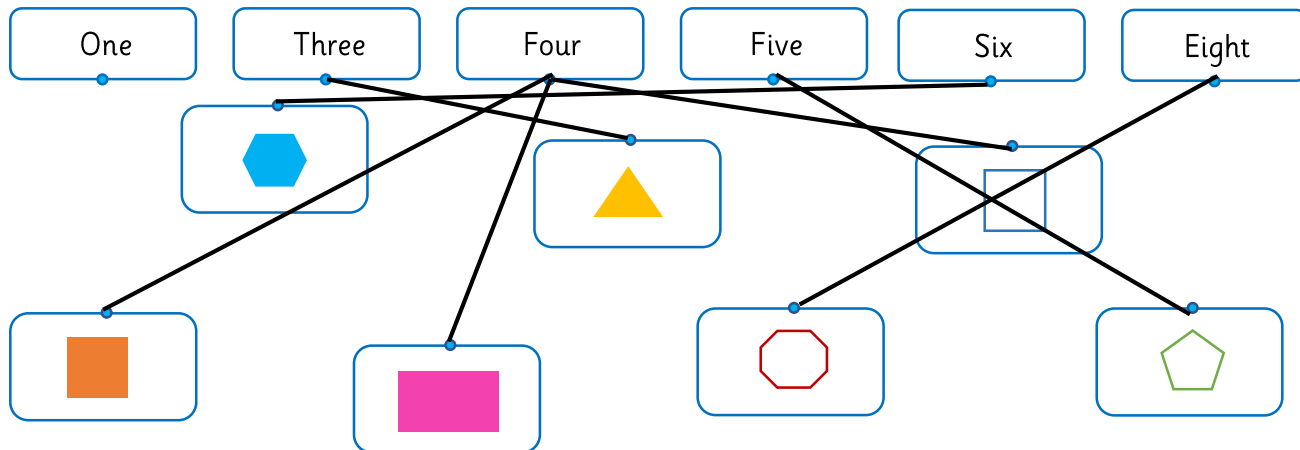


Complete the table.

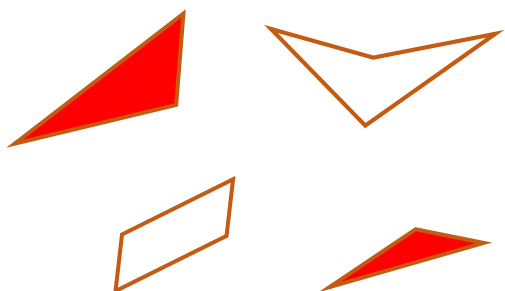
Name	Shape	Number of vertices
Hexagon		
Square		
Triangle		
Rectangle		



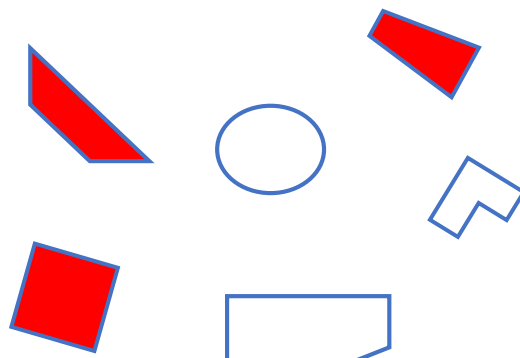
Match the shapes to the number of vertices.







Colour the shapes with 3 vertices.



Colour the shapes with 4 vertices.



Complete the table.

Name	Shape	Number of vertices
Hexagon		6
Square		4
Triangle		3
Rectangle		4



Match the shapes to the number of vertices.

One

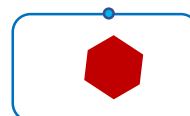
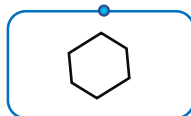
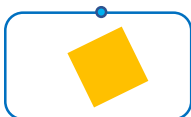
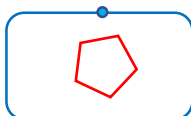
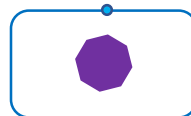
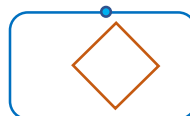
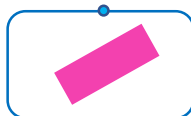
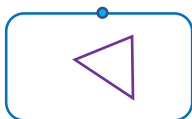
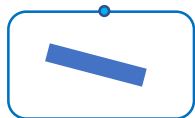
Three

Four

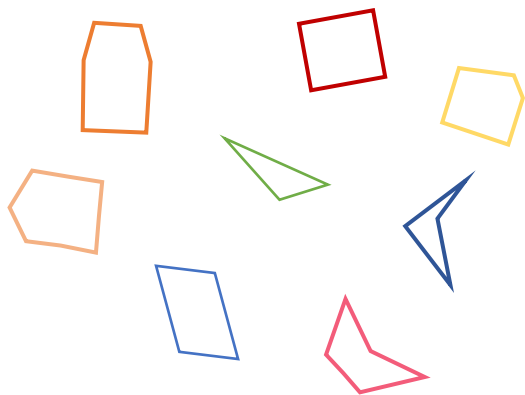
Five

Six

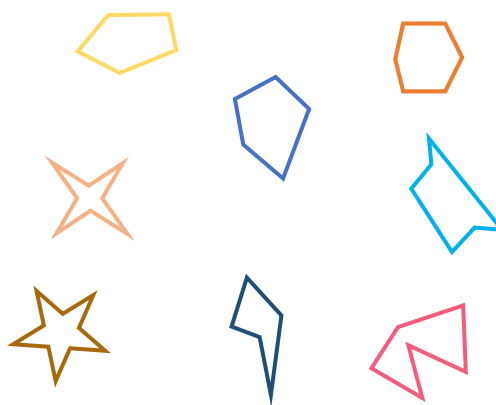
Eight



Colour the shapes with 4 vertices.



Colour the shapes with 5 vertices.

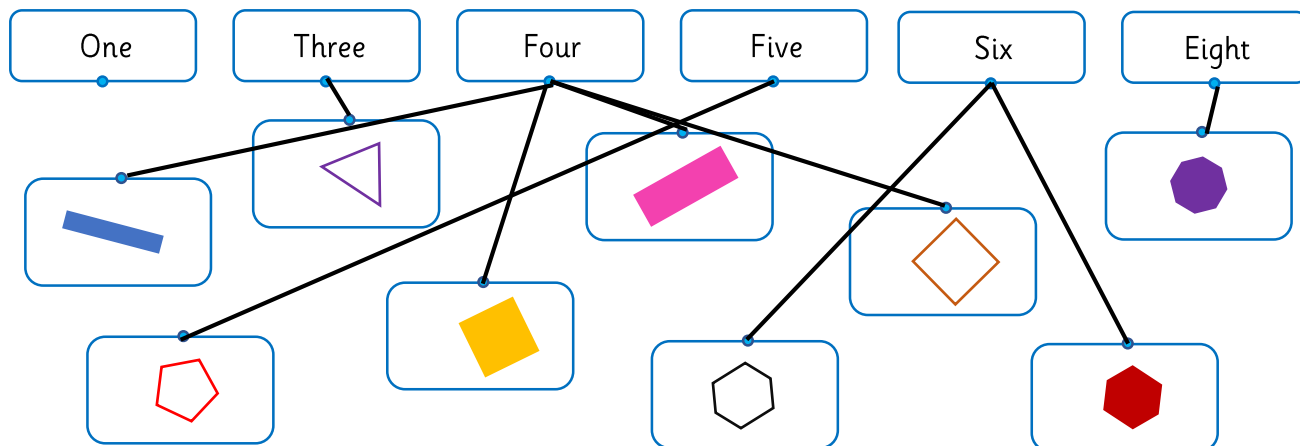


Can you remember the number of vertices each shape has?

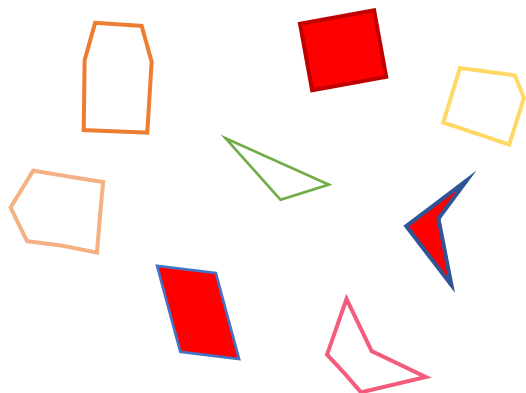
Name	Shape	Number of vertices
Hexagon		
Triangle		
Pentagon		
Square		
Rectangle		



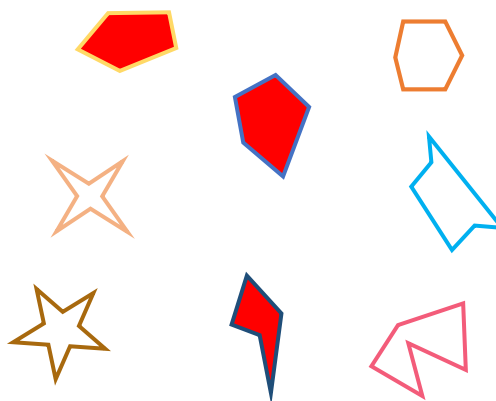
Match the shapes to the number of vertices.








Colour the shapes with 4 vertices.



Colour the shapes with 5 vertices.



Can you remember the number of vertices each shape has?

Name	Shape	Number of vertices
Hexagon		6
Triangle		3
Pentagon		5
Square		4
Rectangle		4

Match the shapes to the number of vertices.

One

Three

Four

Five

Six

Eight

Colour the shapes with 6 vertices.

Colour the shapes with 8 vertices.

Can you add up the number of vertices the shapes have and find the total?

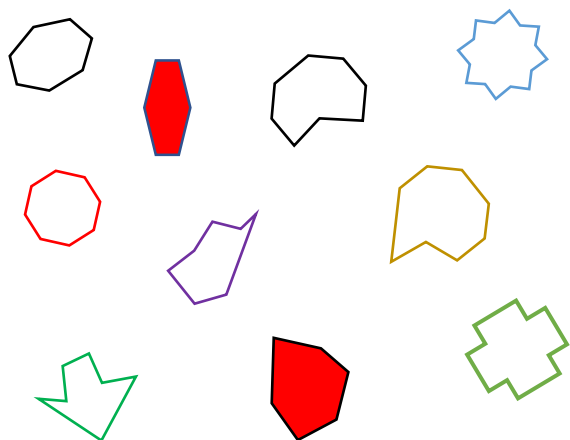
Name	Shape	Total Number of Vertices
Octagon, Triangle, Square		
Triangle, Square, Hexagon		
Hexagon, Pentagon, Rectangle		
Triangle, Square, Octagon		
Square, Rectangle, Triangle		



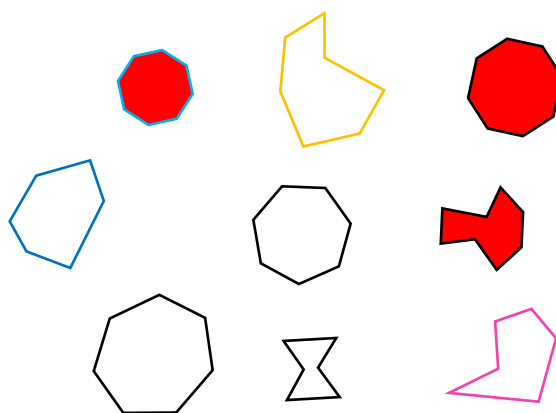
Match the shapes to the number of vertices.

One      Three      Four      Five      Six      Eight

Colour the shapes with 6 vertices.



Colour the shapes with 8 vertices.



Can you add up the number of vertices the shapes have and find the total?

Name	Shape	Total Number of Vertices
Octagon, Triangle, Square		15
Triangle, Square, Hexagon		13
Hexagon, Pentagon, Rectangle		15
Triangle, Square, Octagon		15
Square, Rectangle, Triangle		11

Answer the reasoning questions.

Malachi says:

My shape has half the number of vertices as a hexagon.

What shape could he have?  
Could it be more than one?



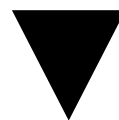
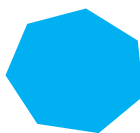
Tia says:

My shape has double the number of sides as a square.

What shape could she have?  
Could it be more than one?



Put these shapes in order from the smallest to the greatest based on the number of vertices they have.



Zach has created a pattern using shapes.



How many vertices does each step in the pattern have?

What do you notice?

Can you predict how many vertices the next step in the pattern will have?



Answer the reasoning questions.

Malachi says:

My shape has half the number of vertices as a hexagon.

What shape could he have?  
Could it be more than one?



**Triangle.**  
**Only triangles have 3 sides.**

Tia says:

My shape has double the number of sides as a square.

What shape could she have?  
Could it be more than one?

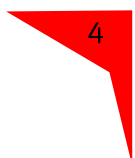


**Octagon.**  
**Only octagons have 8 sides.**

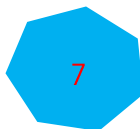
Put these shapes in order from the smallest to the greatest based on the number of vertices they have.



4



2



5



3



1

Zach has created a pattern using shapes.



How many vertices does each step in the pattern have?

**5, 8, 13**

What do you notice?

**There is an additional shape in each pattern.**

Can you predict how many vertices the next step in the pattern will have?

**The next shape could be another pentagon (18 vertices) or another triangle (16 vertices).**