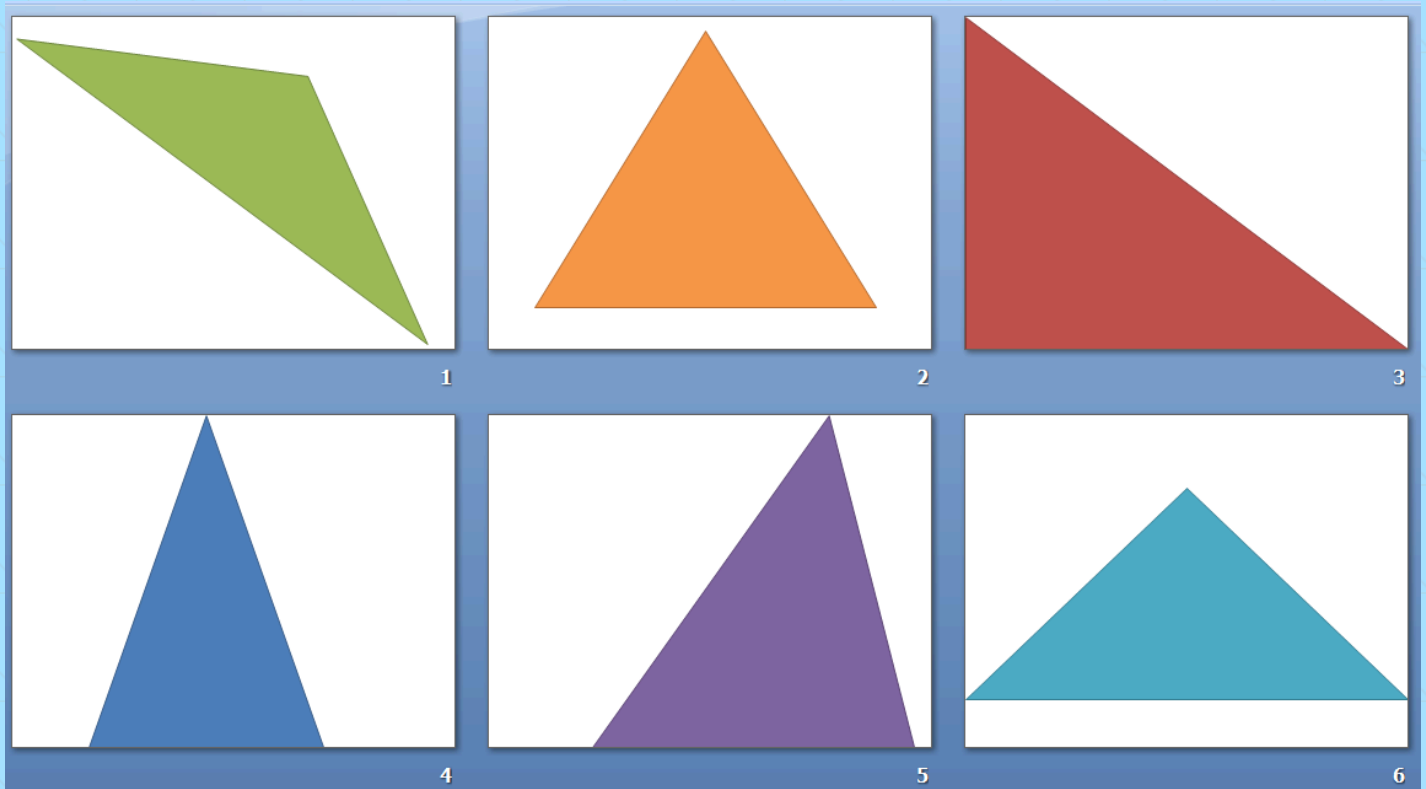
Geometry!

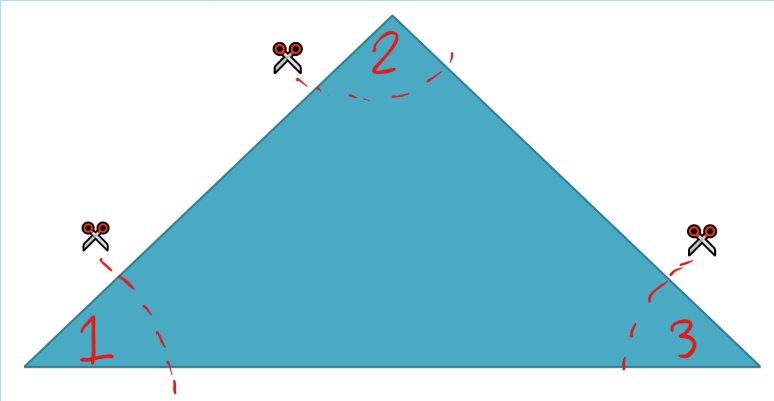
What will we learn?

- Apply the angle sum of a triangle
  Investigate the relationship of an exterior angle of a triangle with the two interior opposite angles



Angle Sum of Triangles: Activity

- You all have a triangle
- Label the angles 1, 2, and 3
- Cut them out like this

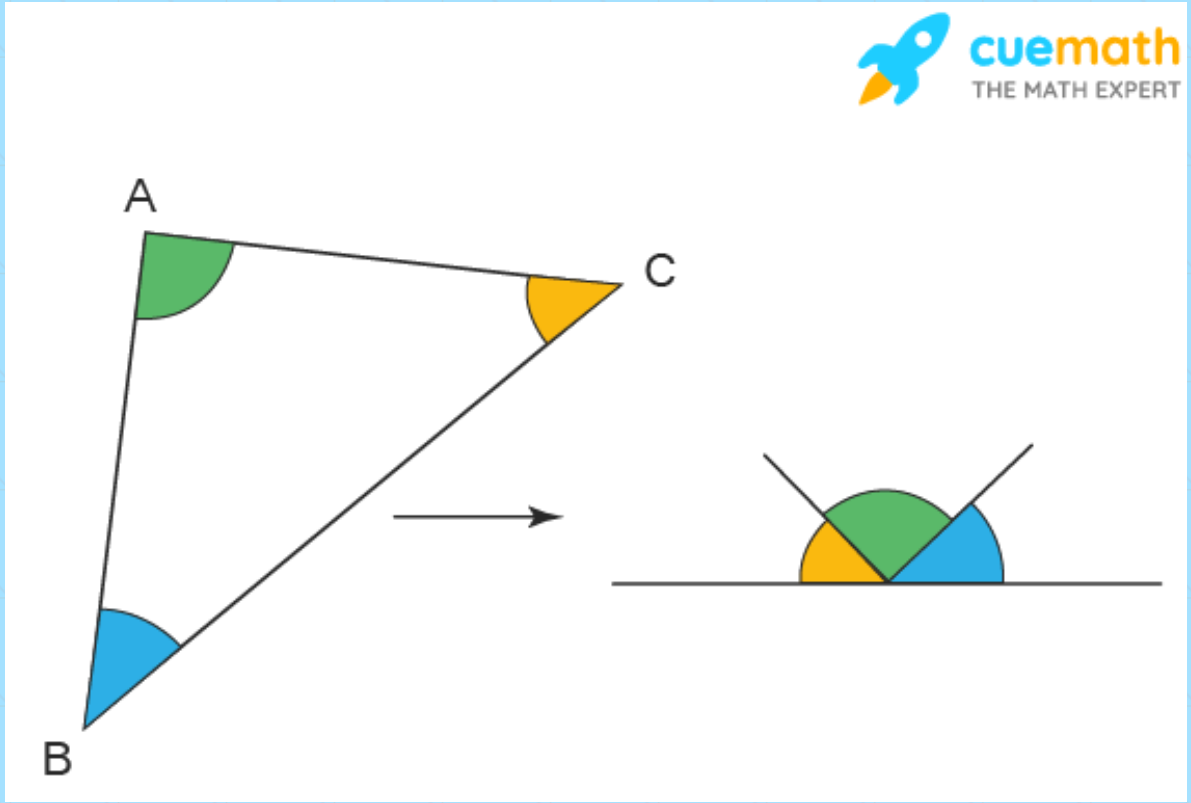


- Now put the corners together
- What do you get? 👀

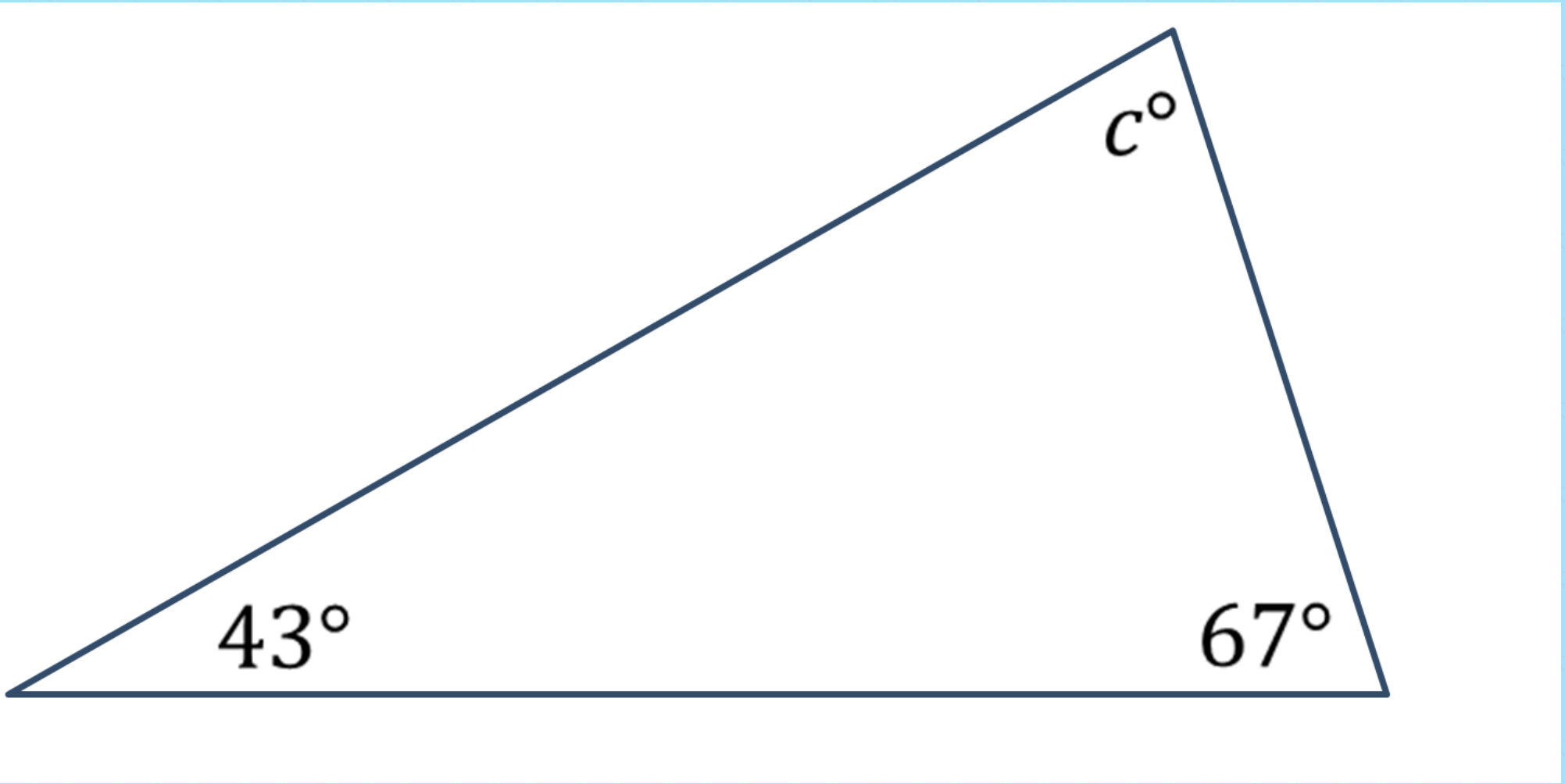
That's right, they all make a straight line

The Angle Sum of a Triangle

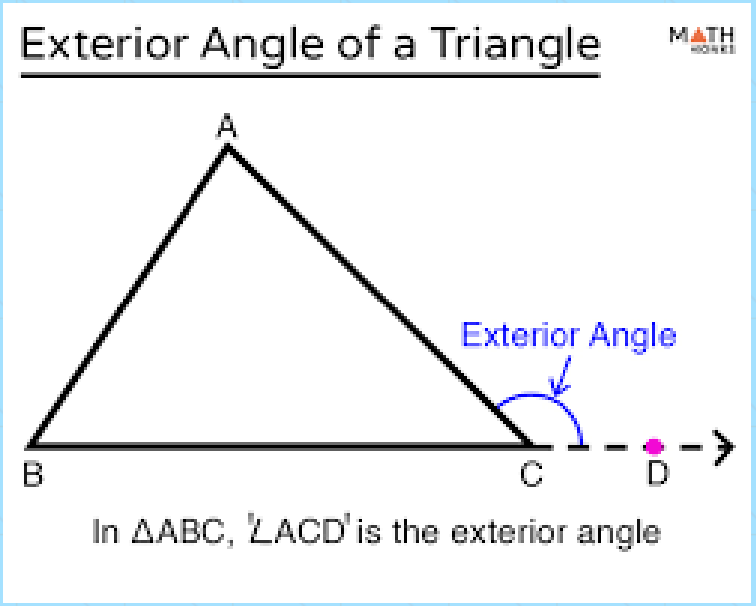
is 180°!



Example



Exterior Angle of Triangles



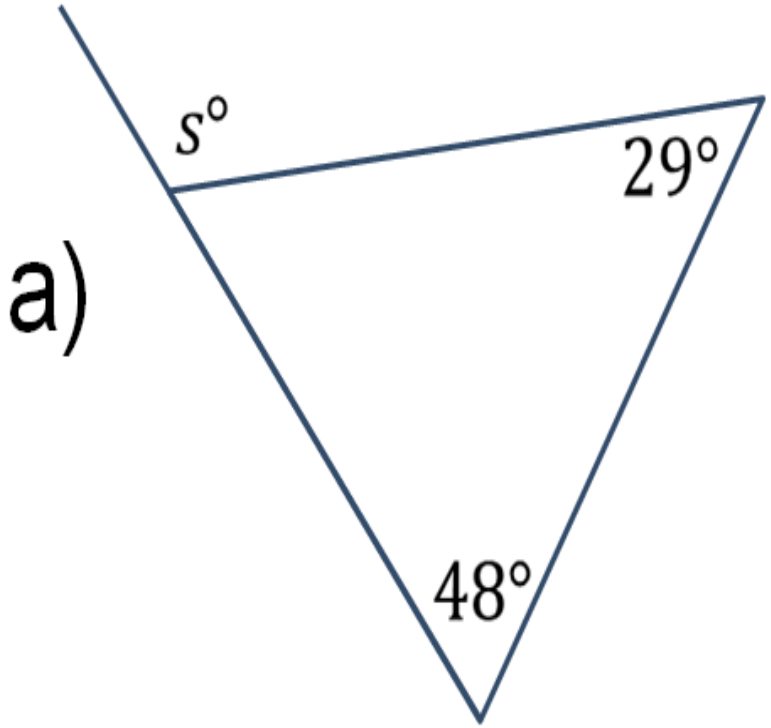
Visualize

- How does this relate to the angle sum?

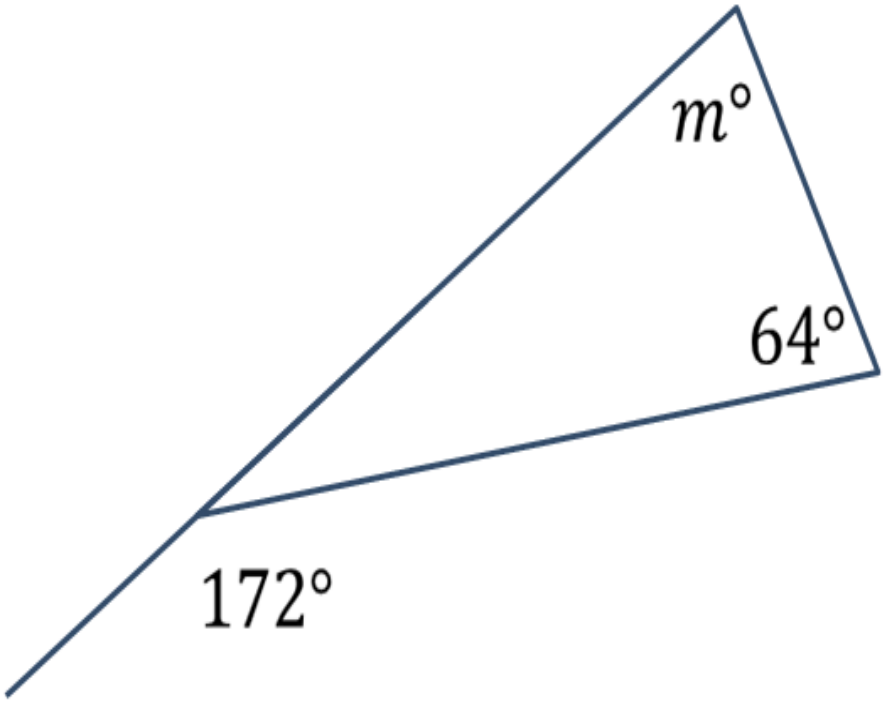
Examples

Find the value of each pronumeral

a)



b)

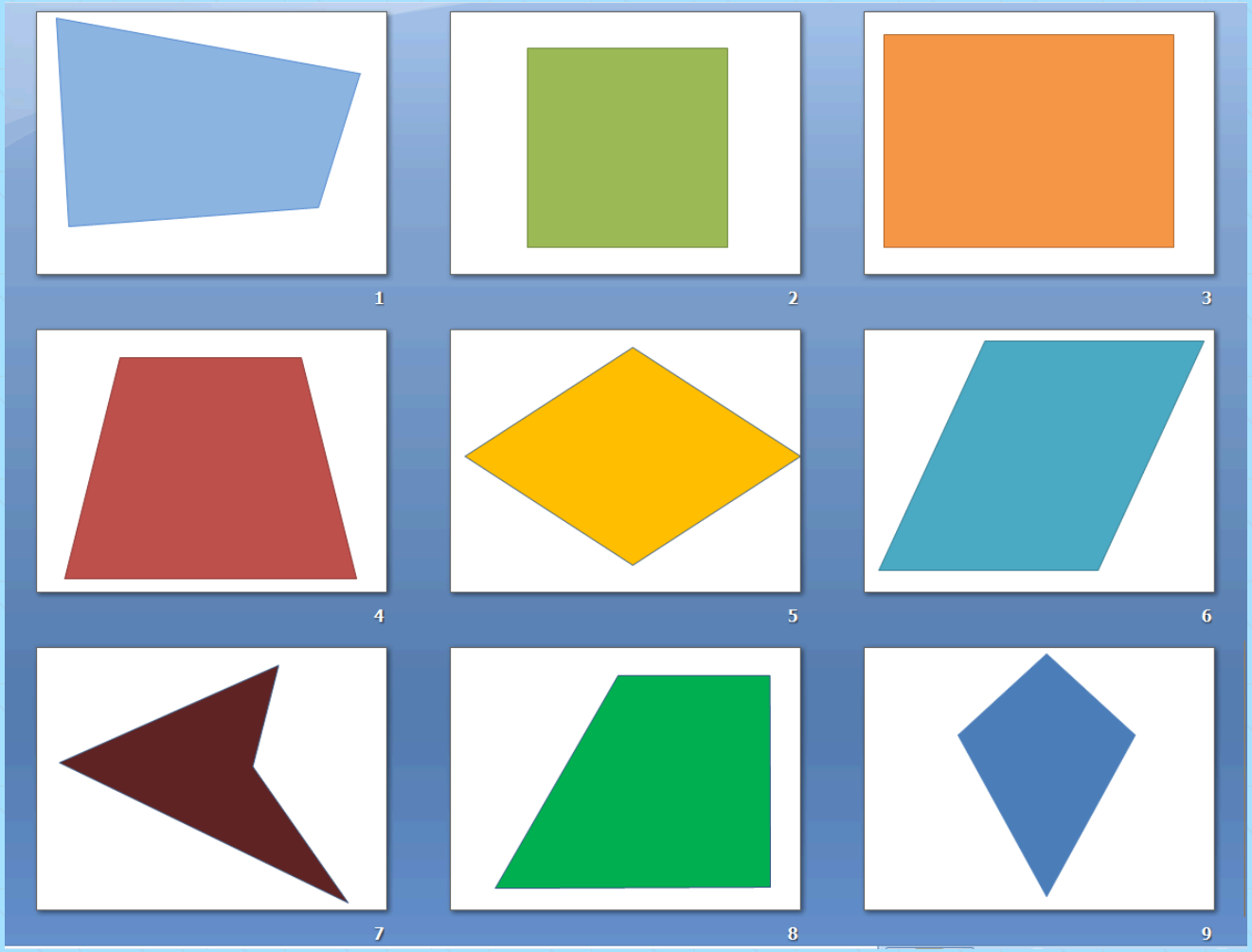


Geometry!

What will we learn?

- Apply the angle sum of a triangle and quadrilaterals
- Distinguish between convex and non-convex quadrilaterals
- Describe squares, rectangles, rhombuses, parallelograms, kites and trapeziums

Angle Sum of Quadrilaterals

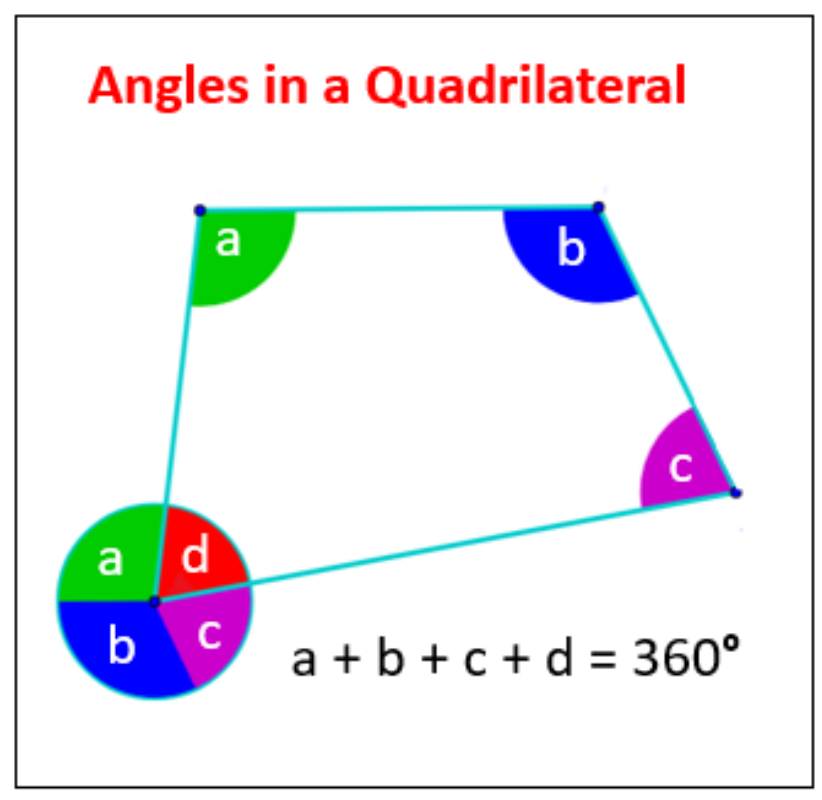


Activity

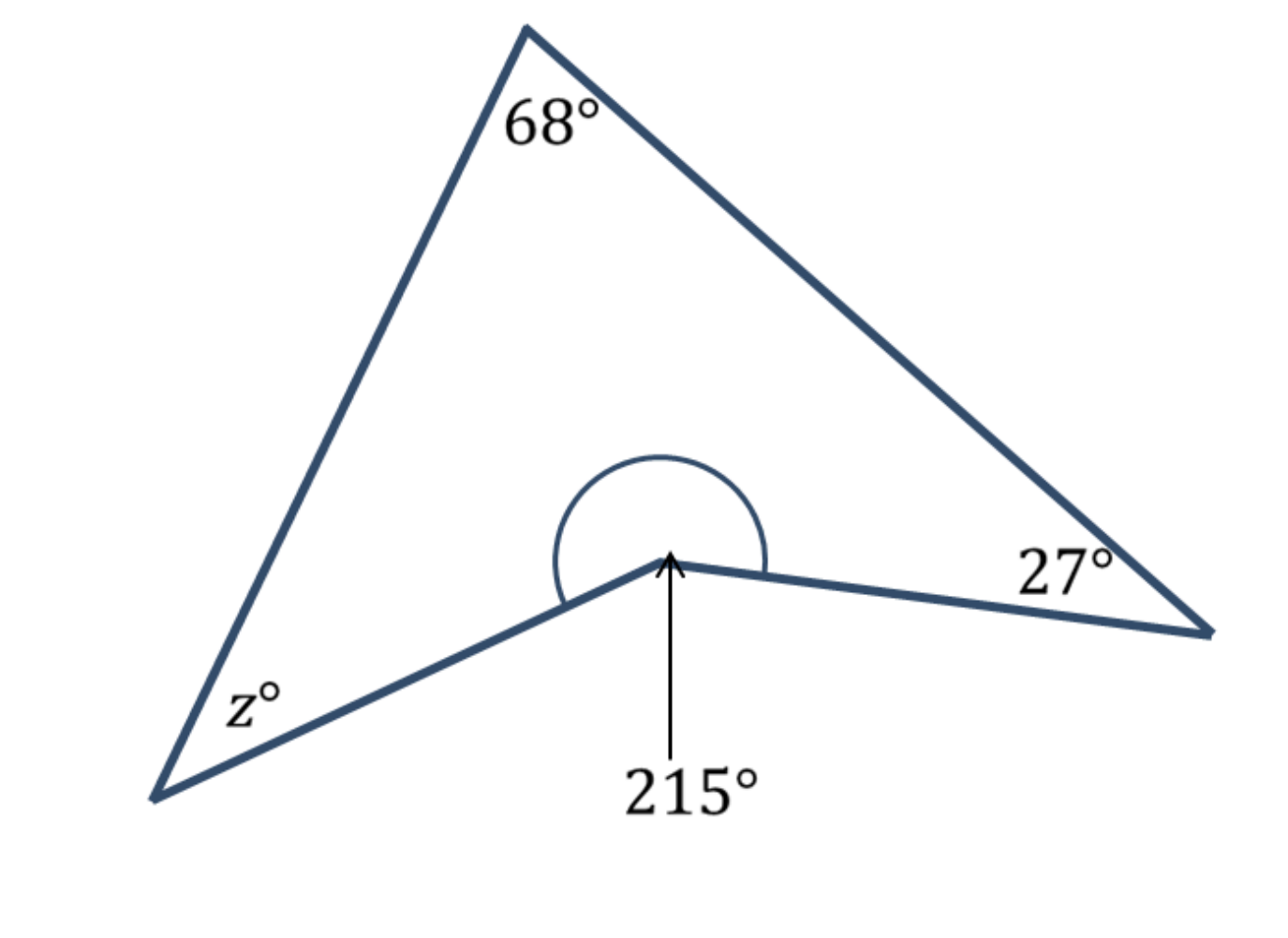
- You all have a quadrilateral
- Label the angles 1, 2, 3 and 4
- Cut them out like you did before
- Now put the corners together
- What do you get? 👀

The Angle Sum of a Quadrilateral

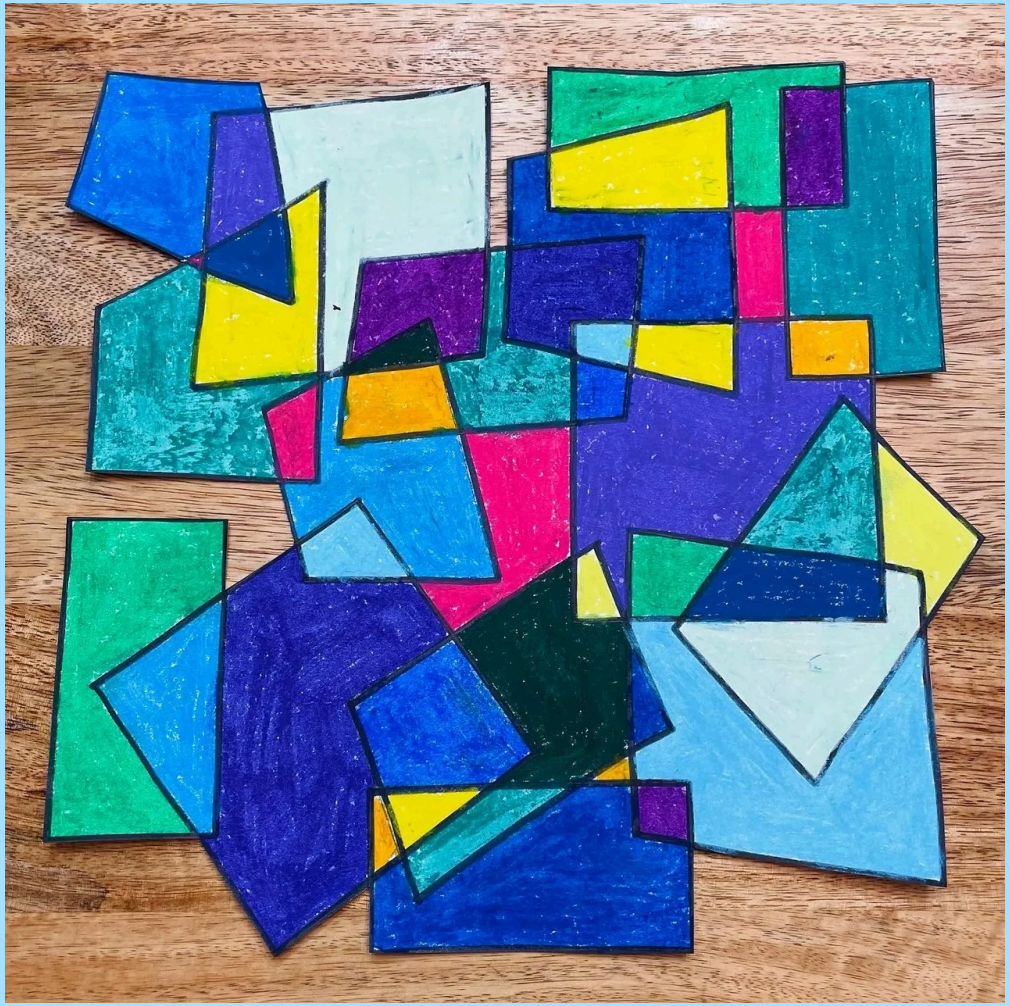
- is 360°!

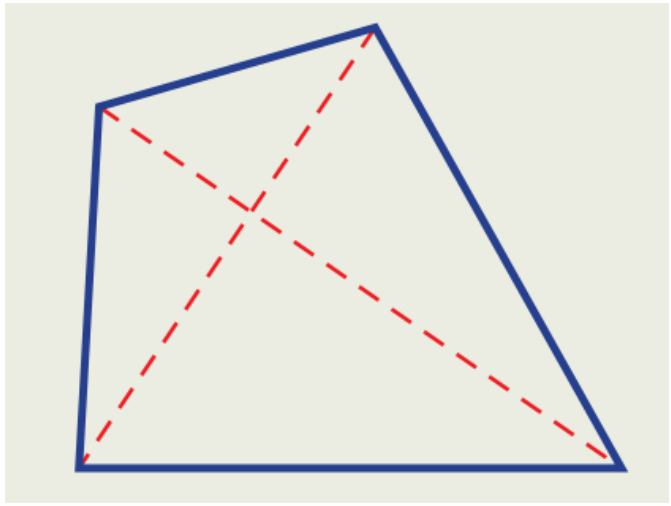
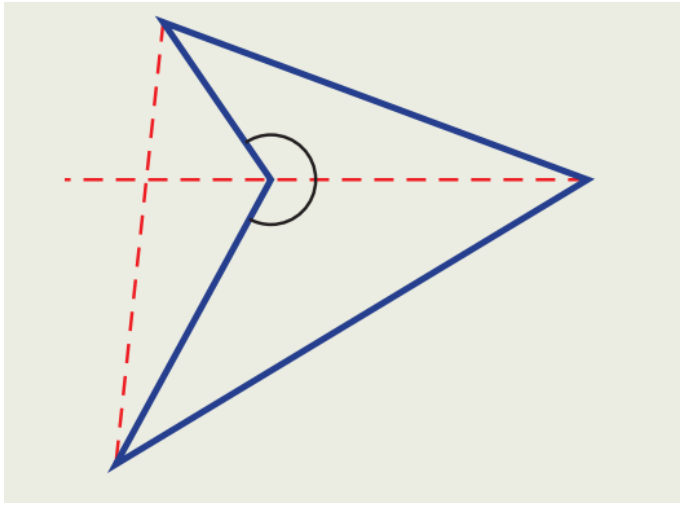


Example



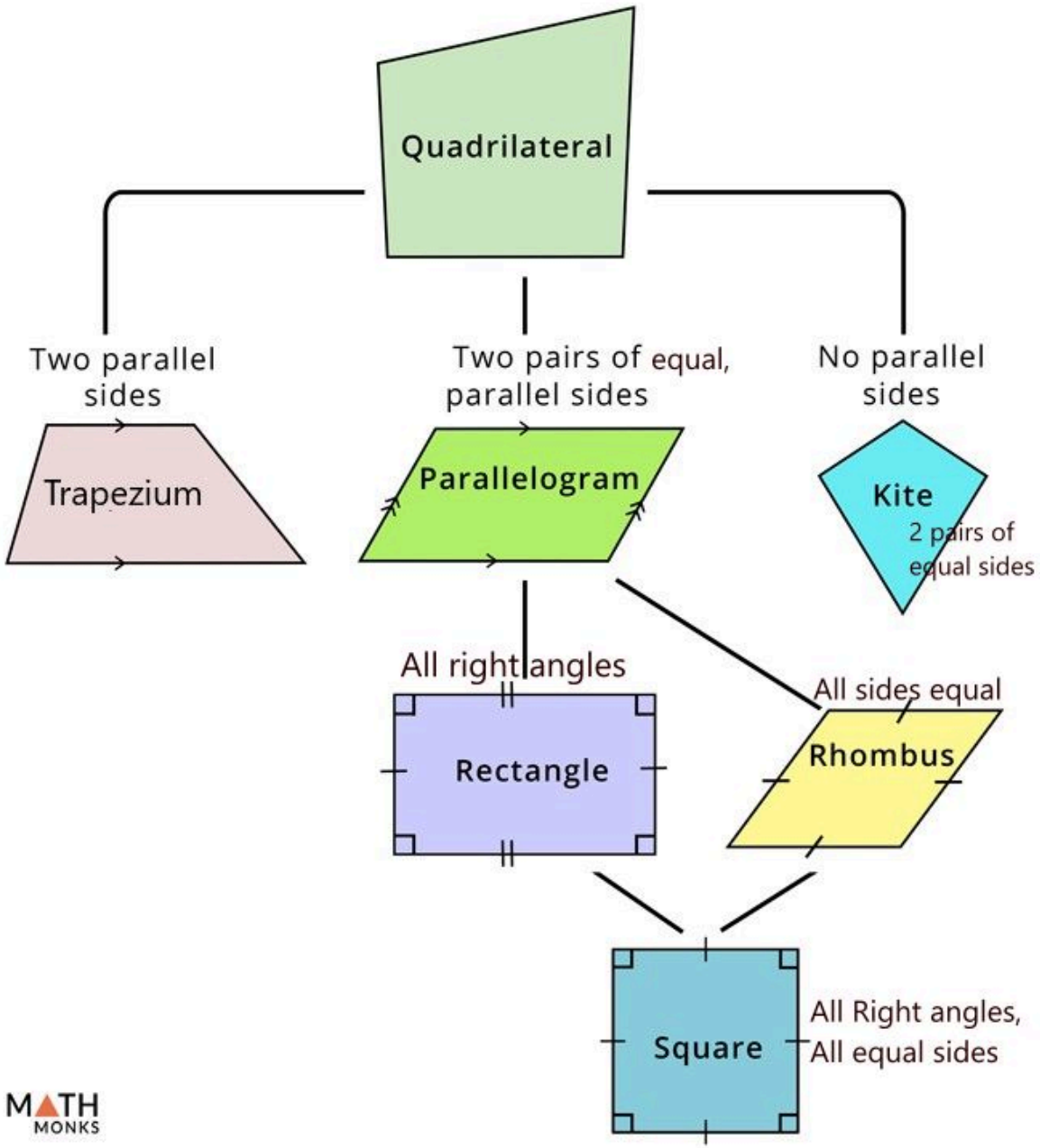
Classifying Quadrilaterals



Convex	Non-Convex
	
All vertices point outwards	One vertex points inwards
Both diagonals inside	One diagonal outside
All interior angles less than 180°	One interior angle more than 180°

Visual

Quadrilateral Family Tree



MATH MONKS

	right angles?	Equal sides?	Parallel sides?
Trapezium			
Kite			
Parallelogram			
Rectangle			
Rhombus			
Square			

	right angles?	Equal sides?	Parallel sides?
Trapezium	❌	❌	1 pair
Kite	❌	2 pairs	❌
Parallelogram	❌	2 pairs	2 pairs
Rectangle	☑️	2 pairs	2 pairs
Rhombus	❌	All 4	2 pairs
Square	☑️	All 4	2 pairs

❤️ lesson outcomes

What will we learn?

Polygons

- Classify triangles according to their side and angle properties
- Apply the angle sum of a triangle and quadrilateral
-

Key words

Write these down with a lot of space in between, we will define each one over the next few lessons

- Perpendicular

- Angle Sum
- Exterior angle of a triangle
- Scalene Triangle
- Supplementary Angles
- Convex quadrilateral
- Kite
- Parallelogram
- Trapezium
- Diagonal