opposite sides. has two pairs of opposite sides parallel, and four right angles. It is also a parallelogram, since it has two pairs of parallel sides. has two pairs of parallel sides, four right angles, and all four sides are equal. It is also a rectangle and a parallelogram. is defined as a parallelogram with four equal sides. Is a rhombus always a rectangle? No, because a rhombus does not have 4 right angles. only have one pair of parallel sides. It's a type of quadrilateral that is not a parallelogram. Rhombus Quadrilateral Square Trapezoid

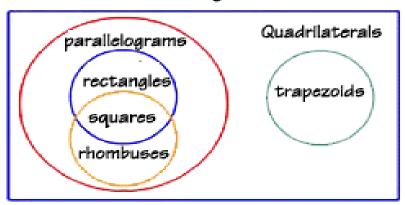
Parallelogram

Rectangle

is a 4 sided polygon.

has two parallel pairs of

Venn Diagram



Complete the sentences by writing *always*, *sometimes*, or *never*.

A rhombus is ______ a square.

A parallelogram is ______ a rectangle.

A rhombus is ______a parallelogram.

A trapezoid is ______ a parallelogram.

A square is ______ a rhombus.

True or False???

A **parallelogram** is never a square. Why or why not?

A **square** is always a rectangle. Why or why not?

A **rhombus** is never a square. Why or why not?

A **trapezoid** is parallelogram. Why or why not?

A **parallelogram** has one set of opposite sides. Why or why not?

A **rectangle** has four right angles. Why or why not?

A **rhombus** always has four equal sides. Why or why not?

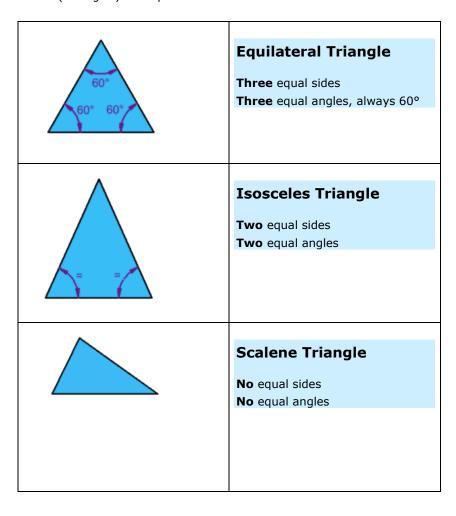
The **sum of the interior angles** of a **quadrilateral** is 180°.

Why or why not?

Classification of Triangles

Equilateral, Isosceles and Scalene

There are three special names given to triangles that tell how many sides (or angles) are equal.



What Type of Angle?

Triangles can also have names that tell you what ${\bf type}\ {\bf of}\ {\bf angle}$ is inside:

<90°	Acute Triangle All angles are less than 90°
90°	Right Triangle Has a right angle (90°)
>90°	Obtuse Triangle Has an angle more than 90°

Draw the type of triangle described by the lengths of its sides and by the measures of its angles.
Use a ruler.

Triangle by Length of Sides			
		Scalene	Isosceles
gle Measure	Acute		
Triangle by Angle Measure	Obtuse		

Polygons

Other Geometry Words to Know

What is a regular polygon?

Types of polygons:

Name	Number of Sides
Triangle	
Quadrilateral	
Pentagon	
Hexagon	
Heptagon	
Octagon	
Nonagon	
Decagon	

Draw an example of the following words:

Name	Symbol	Definition or Example
Parallel		
Perpendicular		
Intersecting		
Congruent		
Angle		