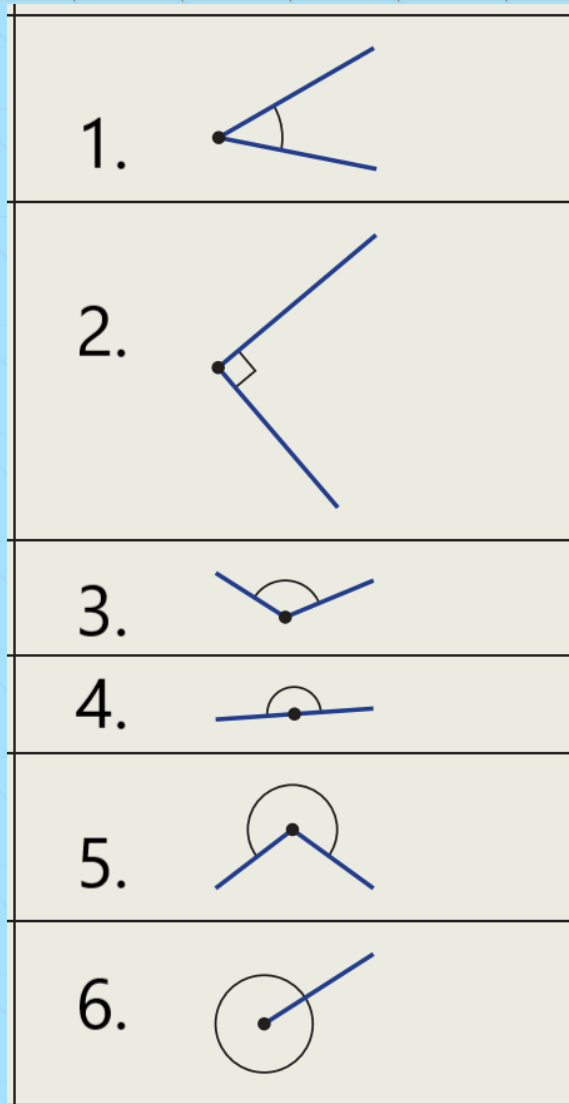


Geometry Revision!

Classifying Angles

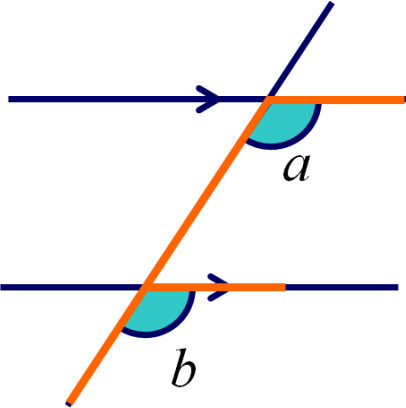
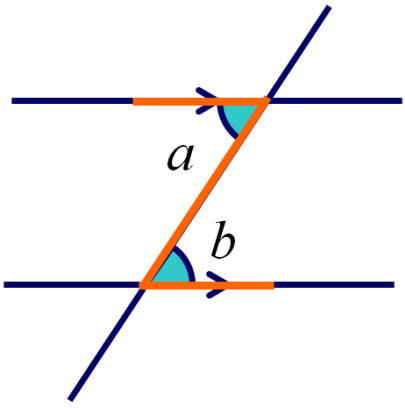
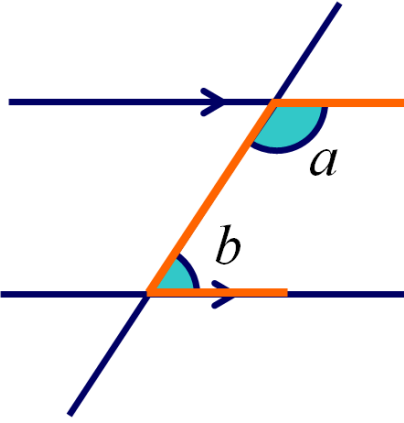


1. Acute	between 0° to 90°	Means: pointy (from Latin)
2. Right	exactly 90°	Means: dividing evenly into four parts
3. Obtuse	between 90° to 180°	Means: opposite of acute: blunt
4. Straight angle	exactly 180°	
	* between	Means: bending back

Angle pairs

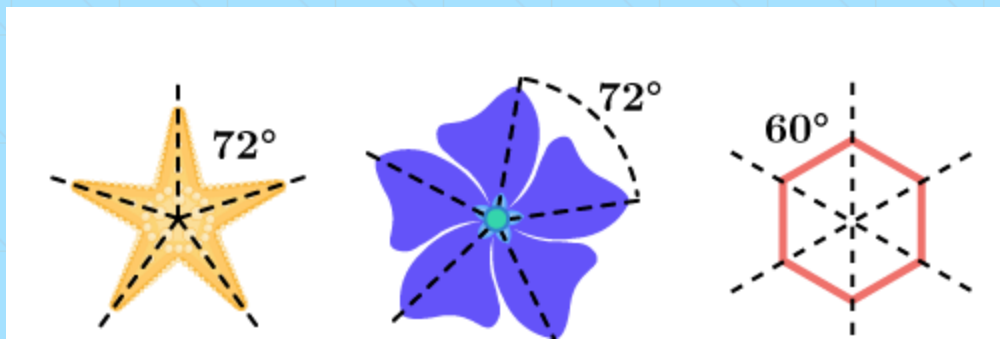
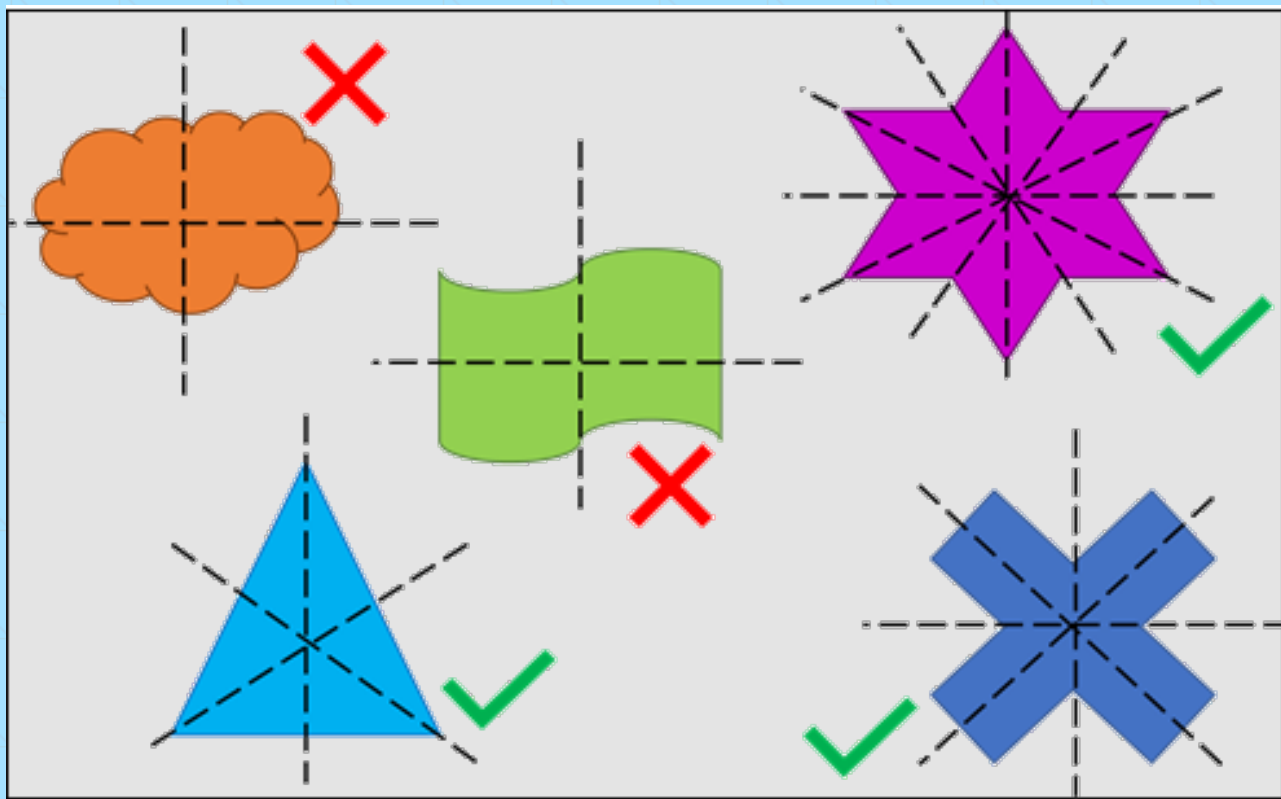
Angles	Property	Remember
Adjacent	Share an arm and a vertex	Neighbouring
Complementary	Add up to 90°	C for C orner
Supplementary	Add upto 180°	S for S traight
Angles at a point	Add upto 360°	
Vertically opposite	Equal	Look for an X

Angles on parallel lines

Corresponding	Alternate interior	Co-interior
		
look for an F-shape	look for a Z-shape	look for a C- or U-shape
Equal	Equal	Supplementary (Add upto 180°)

Symmetry

Line Symmetry

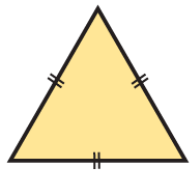


Classifying Triangles

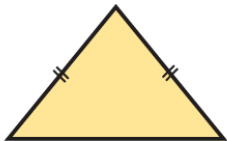
Classification of Triangles



By Side



Equilateral Triangle
has three equal sides

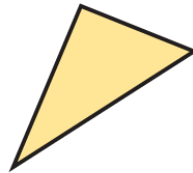


Isosceles Triangle
has two equal sides



Scalene Triangle
has no equal sides

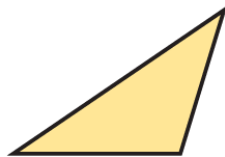
By Angle



Acute Triangle
has three angles $< 90^\circ$



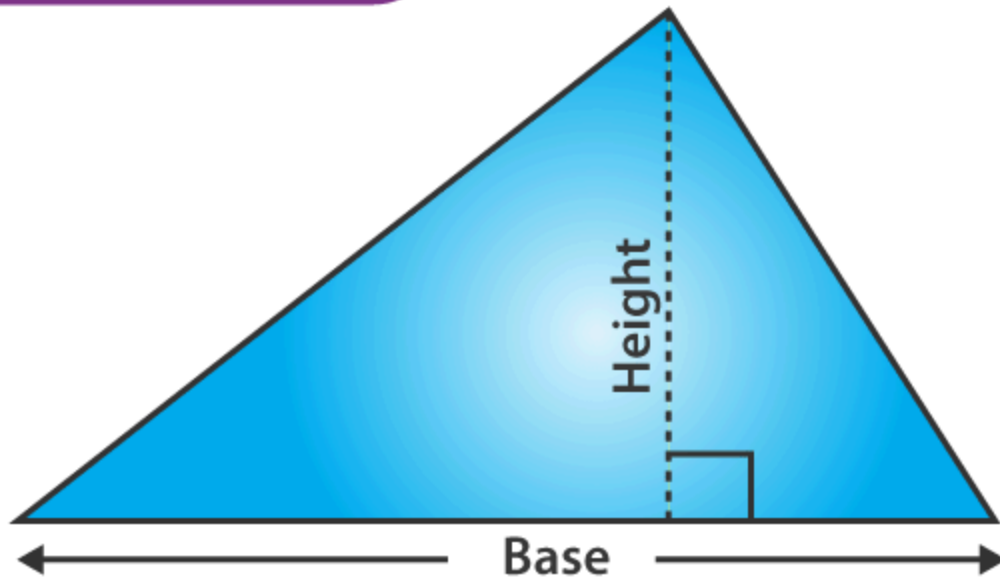
Right Triangle
has one angle = 90°



Obtuse Triangle
has one angle $> 90^\circ$

Area of a triangle

AREA OF TRIANGLE



$$\text{Area} = \frac{1}{2} \times \text{base} \times \text{perpendicular height}$$

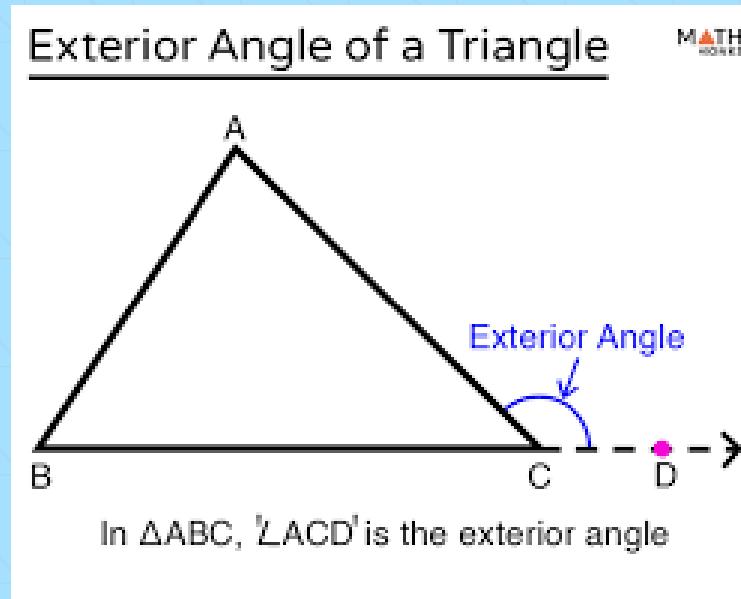
© Byjus.com

Key point: Perpendicular

Also important: $\frac{1}{2}$

Angle Sums

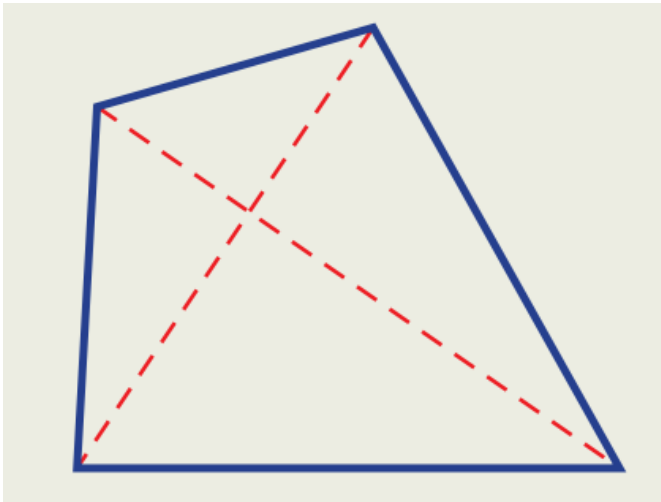
- Angle Sum of a **Triangle** is 180°
- Angle Sum of a **Quadrilateral** is 360°



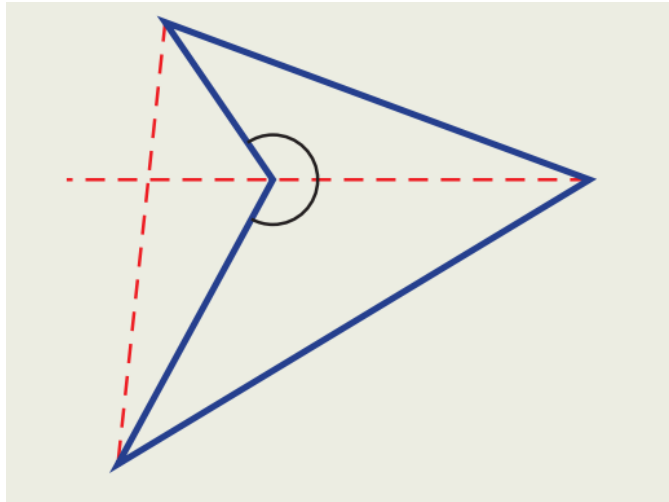
- **Exterior Angle** of a Triangle = sum of opposite 2 angles

Classifying Quadrilaterals

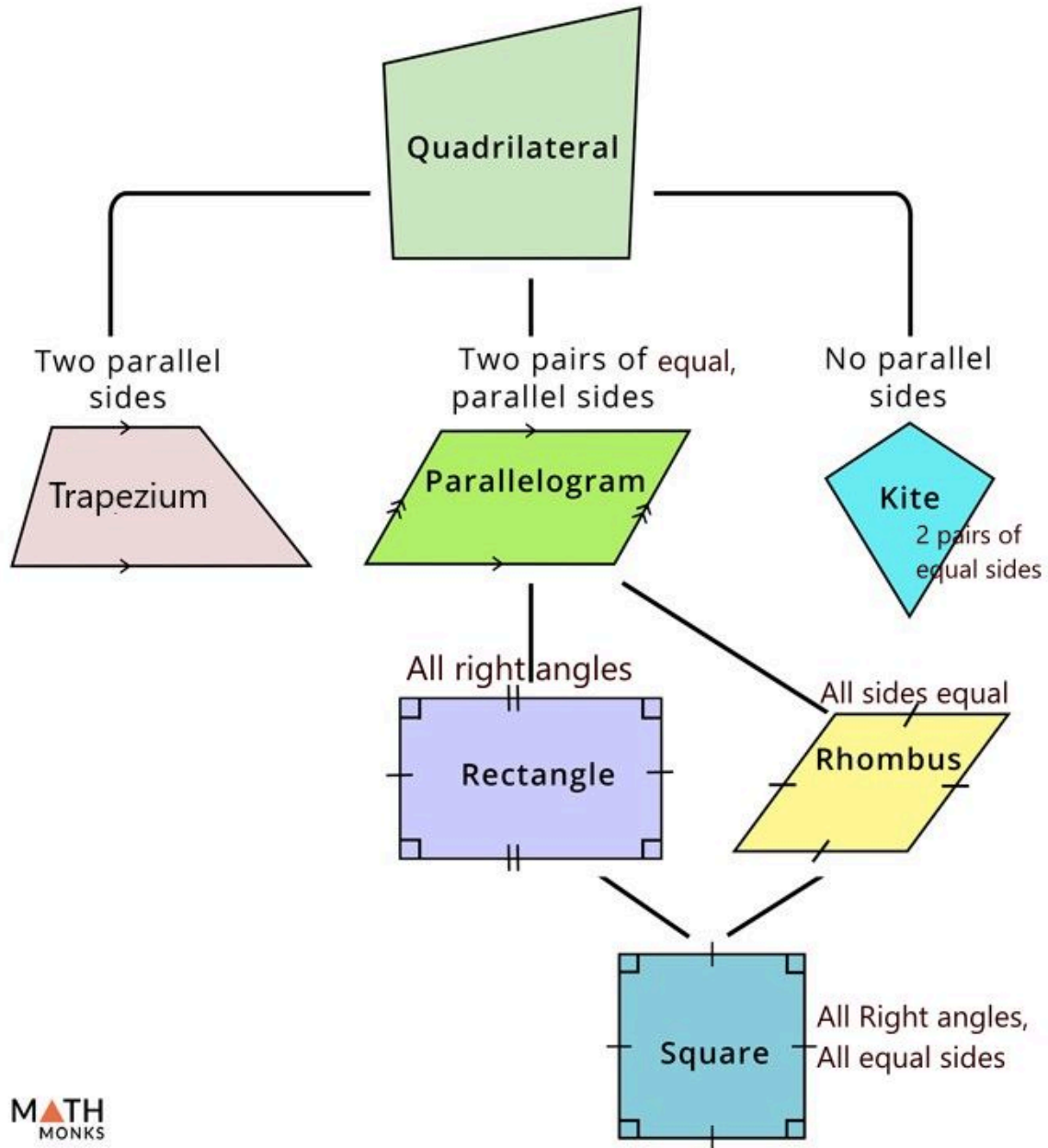
Convex



Non-Convex



Quadrilateral Family Tree



Properties of Quadrilaterals

Trapezium

- One pair of opposite sides are parallel

Kite

- Two pairs of adjacent sides are equal
- One pair of opposite angles are equal
- Diagonals intersect at right angle (90°)

Parallelogram

- Opposite sides are equal and parallel
- Opposite angles are equal
- Diagonals bisect each other (cut each other in half)