

Geometric Reasoning

Key Vocabulary

Acute — An angle that measures less than 90°

Obtuse — An angle that measures greater than 90° but less than 180°

Reflex — An angle that measures greater than 180° but less than 360°

Interior Angle — The angle inside a polygon

Exterior Angle — The angle outside a polygon when you extend the line from the angle

Intersect — Where two lines cross

Parallel — Lines that do not touch if you continue them

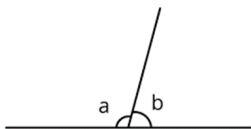
Perpendicular — Lines that would cross at 90° if you continued them

Vertex — A corner

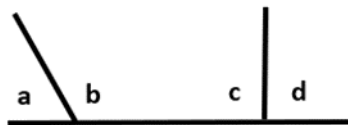
Vertically Opposite Angles — Angles that are opposite each other when two lines intersect each other

Transversal— A line that cuts two lines

Angles

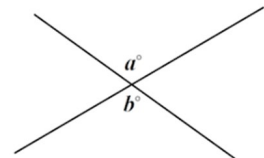


Angles on a straight line add up to 180°

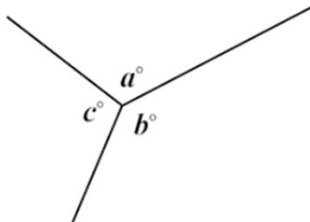


$a + b = 180^\circ$ and $c + d = 180^\circ$

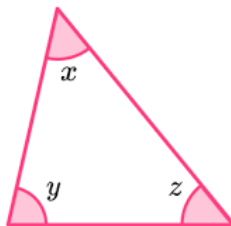
$a + b + c + d \neq 180^\circ$ as they do not meet at one point



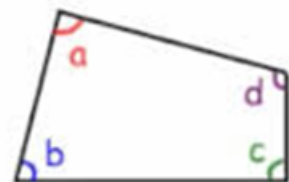
Vertically opposite angles are equal



Angles around a point add up to 360°

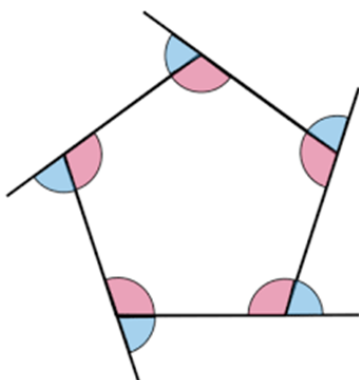


Angles in a triangle add up to 180°



Angles in any quadrilateral add up to 360°

Angles in Polygons



The exterior angles (the blue angles) on any polygon add up to 360°

One exterior and interior angle (a red and blue angle) add up to 180° as they make a straight line