

Essential knowledge

Know the names and properties of 2-D shapes. Identify angles and lines using notation. Know the different types of angles. Angles on a straight-line sum to 180 & angles around a point sum to 360. Angles in a triangle sum to 180. Know angles in a quadrilateral sum to 360.

Key Vocabulary

Sum: total, add all the interior angles together
 Polygon: A 2D shape made with straight lines
 Scalene triangle: a triangle with all different sides and angles
 Isosceles triangle: a triangle with two angles the same size and two angles the same size
 Right-angled triangle: a triangle with a right angle
 Acute Angle – An angle less than 90°
 Obtuse Angle – An angle greater than 90° and less than 180°
 Reflex Angle – An angle greater than 180° and less than 360°

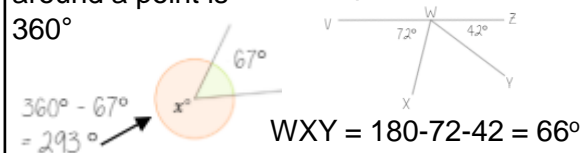
Prior learning links

Names and properties of types of triangles and quadrilaterals. Names of polygons. Angle facts relating to a full turn. Accurately use a protractor.

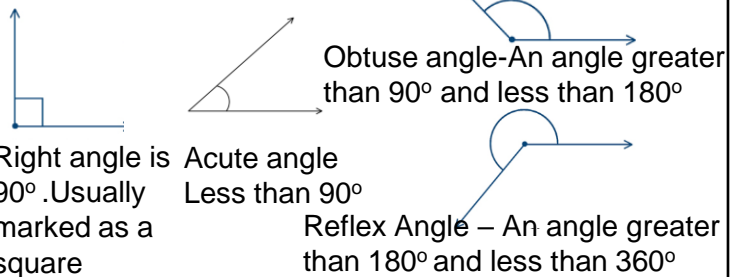
Angles on a straight line and round a point

The sum of angles around a point is 360°

Adjacent angles that share a common point on a line add up to 180°

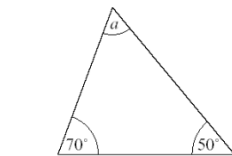


Types of angles

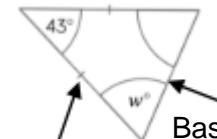


Angles in a triangle

Sum of interior angles in a triangle = 180°



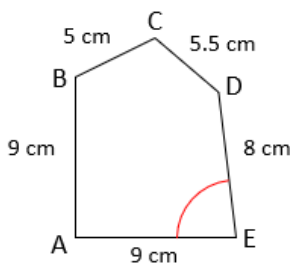
$$180 - 70 - 50 = 60^\circ$$



Hatch marks show sides are same length. Base angles are equal.

Calculation: $180 - 43 = 137$
 $137 \div 2 = 68.5^\circ$

Angle and line notation

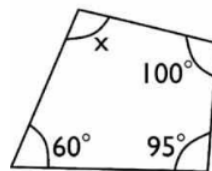


Line segments are usually labelled as two letters at either end. So in the pentagon above line CD is equal to 5.5cm

We label angles as three letters which come from the line segments that form the angle. The angle marked above is angle AED as it is the angle between line segments AE and DE at E

Angles in a quadrilateral

Sum of interior angles in a quadrilateral = 360°



$$360 - 100 - 60 - 95 = 105^\circ$$



$$90 \times 4 = 360^\circ$$