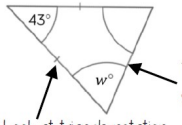
Sum of angles in triangles

Sum of interior angles in a triangle = 180°



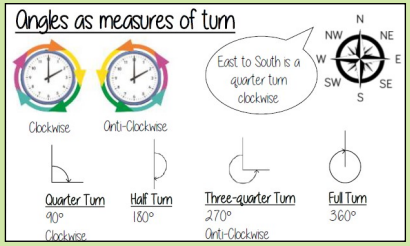
The two base angles will be the same size

Look at triangle notation
This indicates an isosceles triangle
∴ 180 - 43 = 137
137 ÷ 2 = 68.5°

A triangle can only have ONE right angle

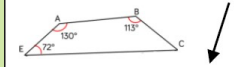
Have a go!
Tearing the corners from triangles forms a straight line which is therefore 180°

Angles as measures of turn



Letter and labelling convention

The letter in the middle is the angle
The arc represents the angle



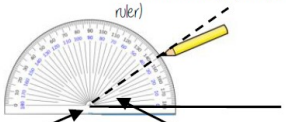
Angle Notation: three letters ABC
This is the angle at B = 113°

Line Notation: two letters EC
The line that joins E to C

Draw angles up to 180°

Draw a 35° angle

Make a mark at 35° with a pencil and join to the angle point (use a ruler)

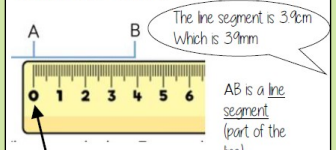


Make sure the cross is at the end of the line (where you want the angle)

The angle

Draw and measure line segments

Conversions 1cm = 10mm, 1m = 100cm

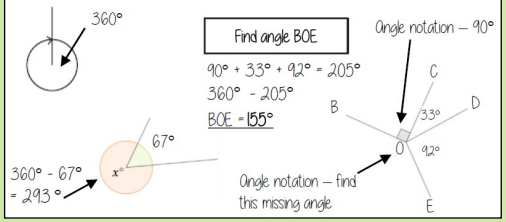


AB is a line segment (part of the line)

Make sure the start of the line is at 0.

Sum of angles at a point

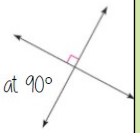
The sum of angles around a point is 360°



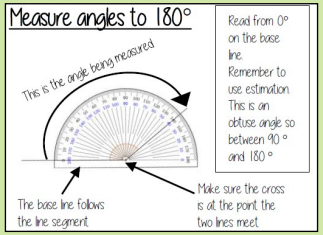
Parallel and Perpendicular lines

Parallel lines
Straight lines that never meet
(Have the same gradient)

Perpendicular lines
Straight lines that meet at 90°

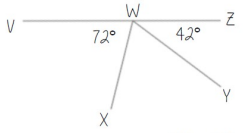


Measure angles to 180°



Sum of angles on a straight line

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

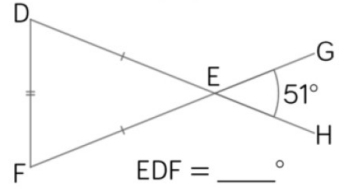


Find angle XWY

72° + 42° = 114°
180° - 114° = 66°

Angle Problems

Split up the problem into chunks and explain your reasoning at each point using angle notation



1. Angle DEF = 51° because it is a vertically opposite angle DEF = GEH
2. Triangle DEF is isosceles (triangle notation) ∴ EDF = EFD and the sum of interior angles is 180°
   180° - 51° = 129° 129° ÷ 2 = 64.5°
3. Angle EDF = 64.5°

Keep working out clear and notes together

Mathematical Language:

Compass
Concave Quadrilateral
Convex Quadrilateral
Frequency
Interior Angles
Isosceles triangle
Polygon
Protractor
Right-angled triangle
Rotation
Scalene triangle
Sum
Vertically Opposite