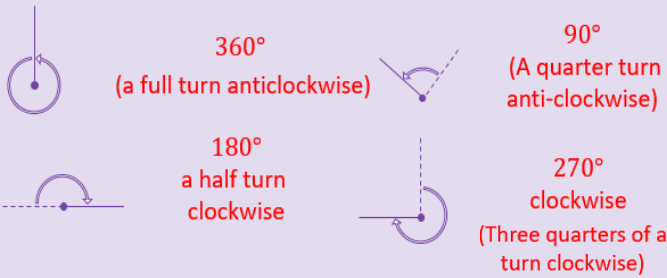


# Y9 Mastery: Unit 6 – Angle Review

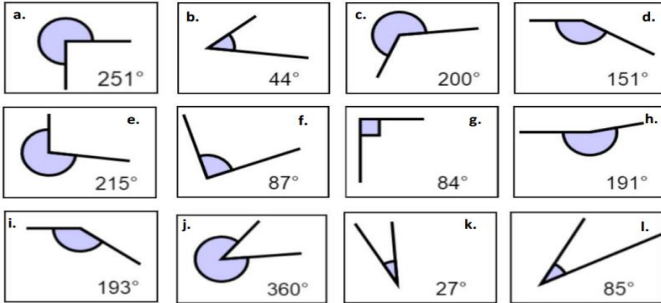
## Measuring Turn

One way that we can interpret an angle is as a measure of **turn**. How many degrees has the line segment turned through in each case?



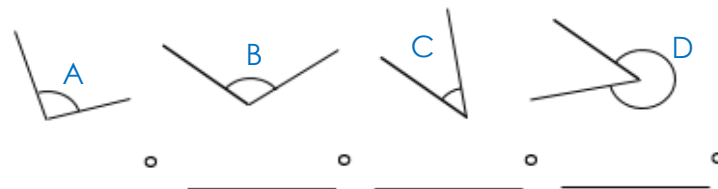
## incorrectly estimated?

Which of these angles have been incorrectly estimated?



Write the incorrect estimations here: \_\_\_\_\_

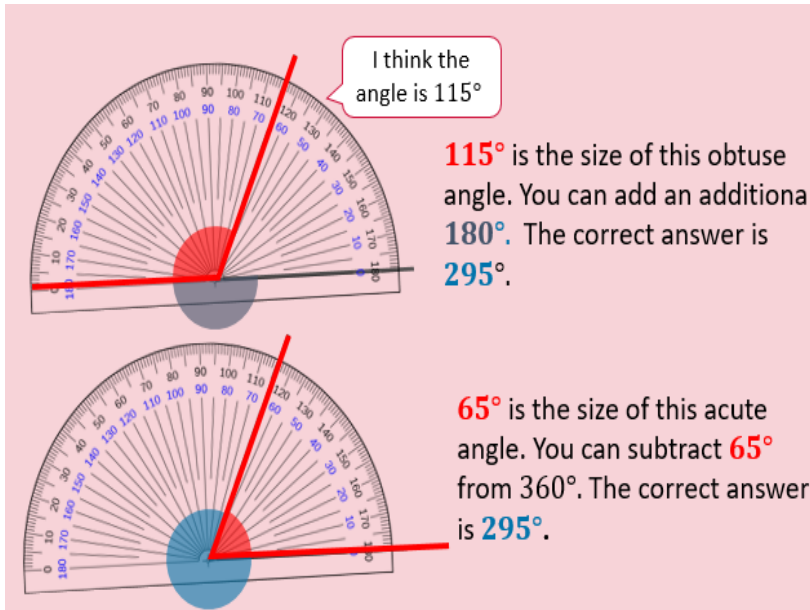
## Comparing Angles



Estimate the size of each angle. What type of angle is each? Which is the smallest angle? Place them in order of size.

Take care when measuring angles with a **protractor** - make sure you read the scale starting at zero.

## Measurement Mistakes



Connect each equation to the bar model and image.

## Partitioning known angles

$c + d = 360$

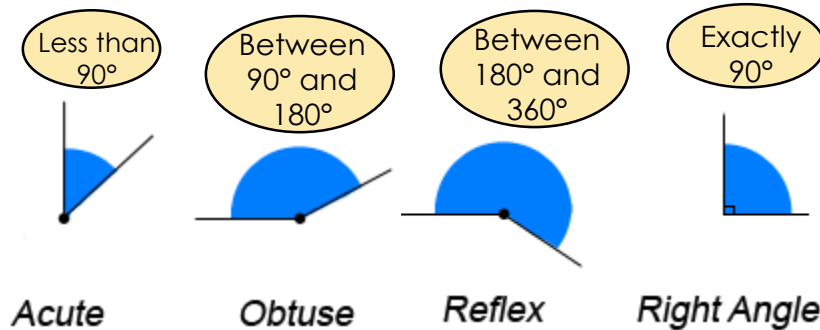
$90 - c = d$

$180 = c + d$

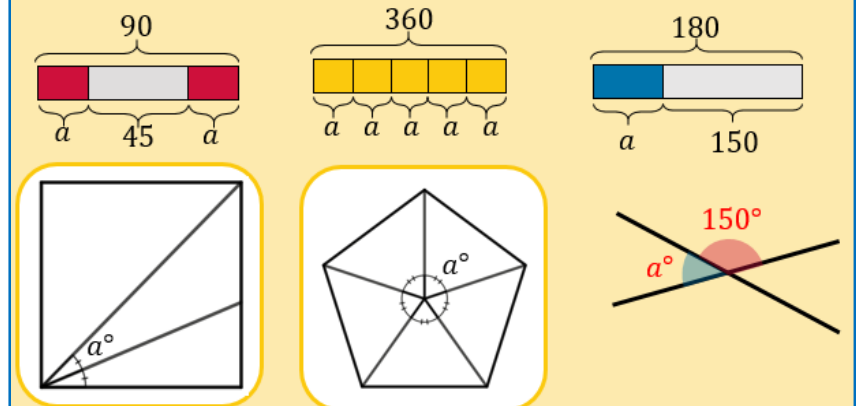
You need to know that:  
 Angles that meet on a straight line sum to  $180^\circ$   
 Angles that meet at a point sum to  $360^\circ$

Deciding which type of angle you have helps when estimating its size and also helps you make sure you measured it correctly.

## Types of Angles



## Making connections



# Y9 Mastery: Unit 6 – Angle Review

## parallel lines

- lines that are always an equal distance apart.
- coplanar lines that do not intersect.

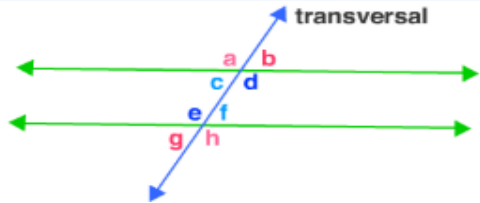
EXAMPLES:

### parallel lines



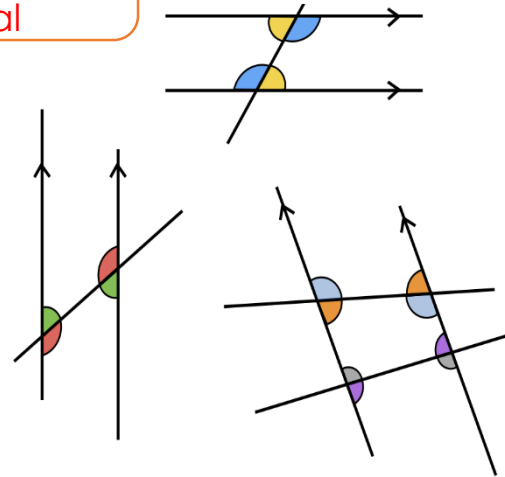
Parallel lines are equidistant, always the same distance apart ... never touching

### angles created by a transversal intersecting parallel lines



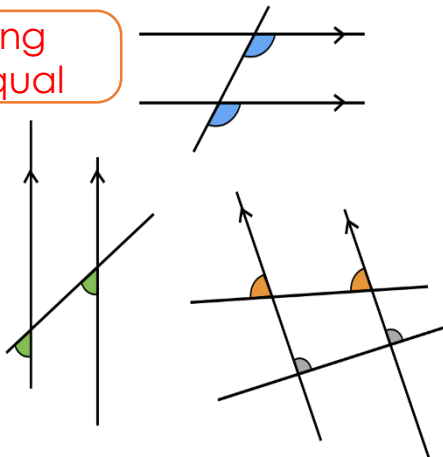
Alternate angles are equal

### Intersection Points



Pairs of alternate angles are shown in the same colour.

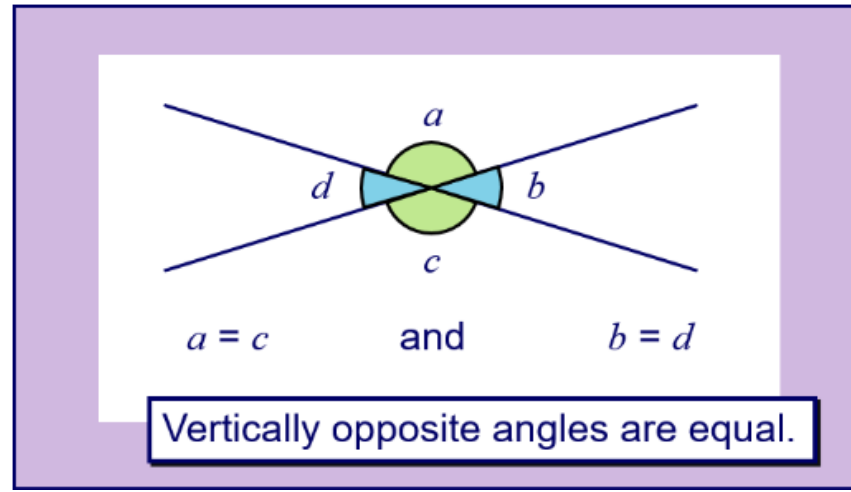
Corresponding angles are equal



Pairs of corresponding angles are shown in the same colour.

### Vertically Opposite Angles

When two straight lines intersect, two pairs of vertically opposite angles are formed.



Other Topics/Units this could appear in:

#### Working Towards:

Unit 5 – properties of shapes and simple angle facts

Unit 8 – mensuration

#### Crossover:

Unit 36 – Alternate & corresponding angles and applying other known angle facts.

Unit 37 – Interior and exterior angles of polygons.

Keyword/Skill	Definition/Tips
Angle	The amount of turn between two rays called arms meeting at a common point called vertex.
Vertically opposite	Pair of angles directly opposite to each other, formed by intersection of straight lines.
Reflex	Any angle that measures more than 180 degrees but less than 360 degrees.
Parallel	Equidistant lines, that is, exactly the same distance apart and never touching.
Partitioning	A strategy that splits numbers into smaller addends, factors or place value to make calculation easier.
Perpendicular	Meeting or crossing at a right angle.
Protractor	An instrument used to measure angles in degrees.
Adjacent Angles	Angles immediately next to each other.
Degrees	The unit of measuring the size of an angle.
Acute	Any angle that measures less than 90 degrees.
Obtuse	Any angle that measures between 90 degrees and 180 degrees.
Right angle	Any angle that measures exactly 90 degrees.