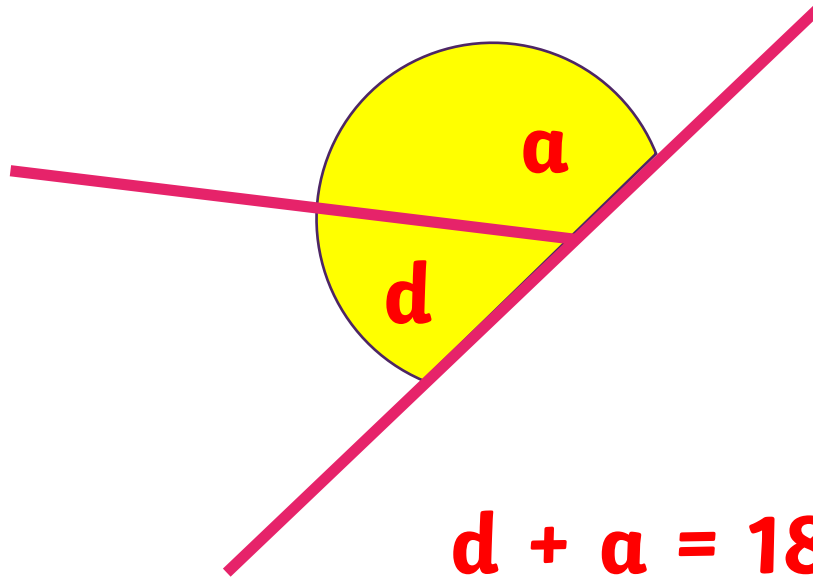# Angles on a Straight Line
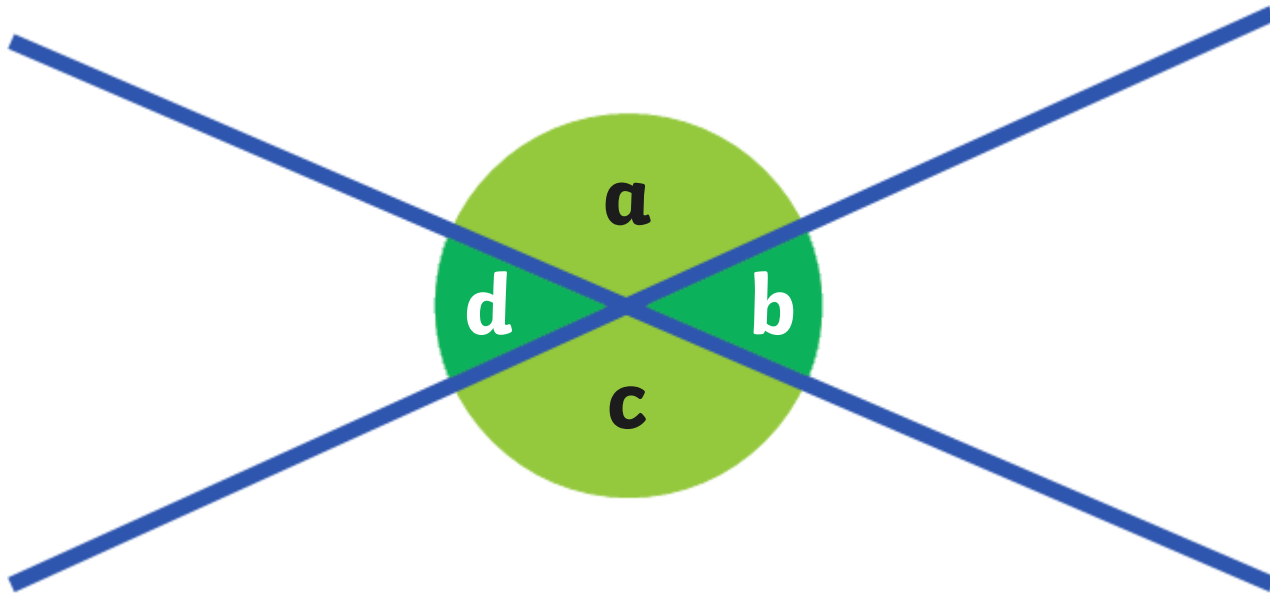
Angles on a straight line always total 180°.
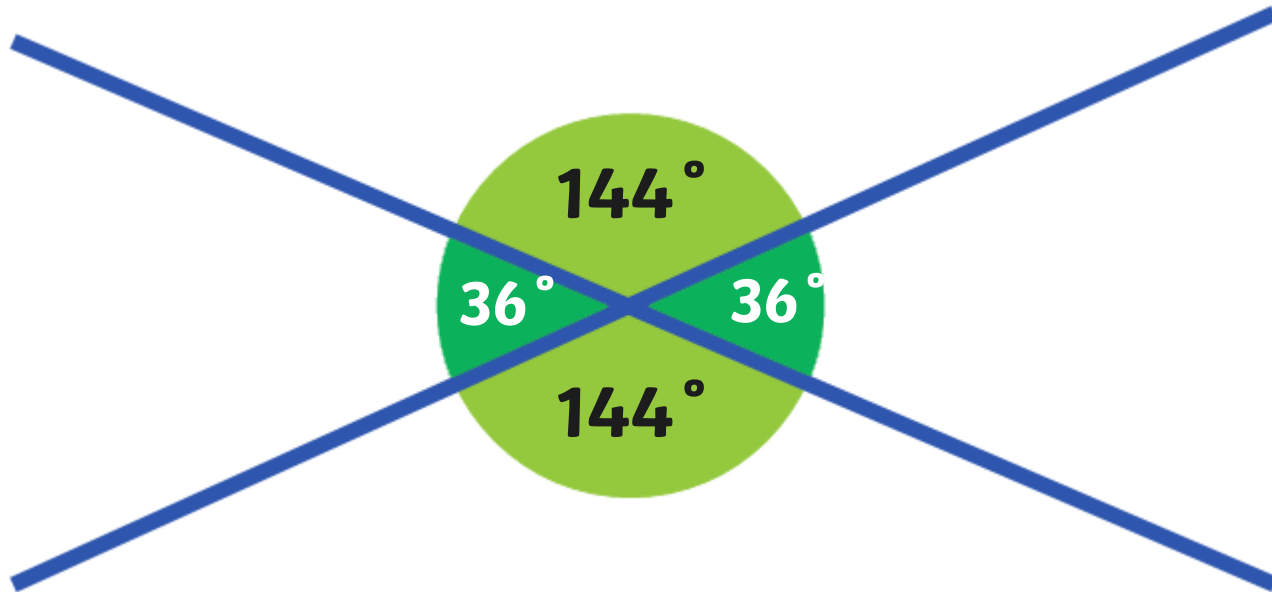

a

d

d + a = 180°

Vertically Opposite Angles

When two straight lines intersect (cross each other), four angles are created around a point which total 360°.
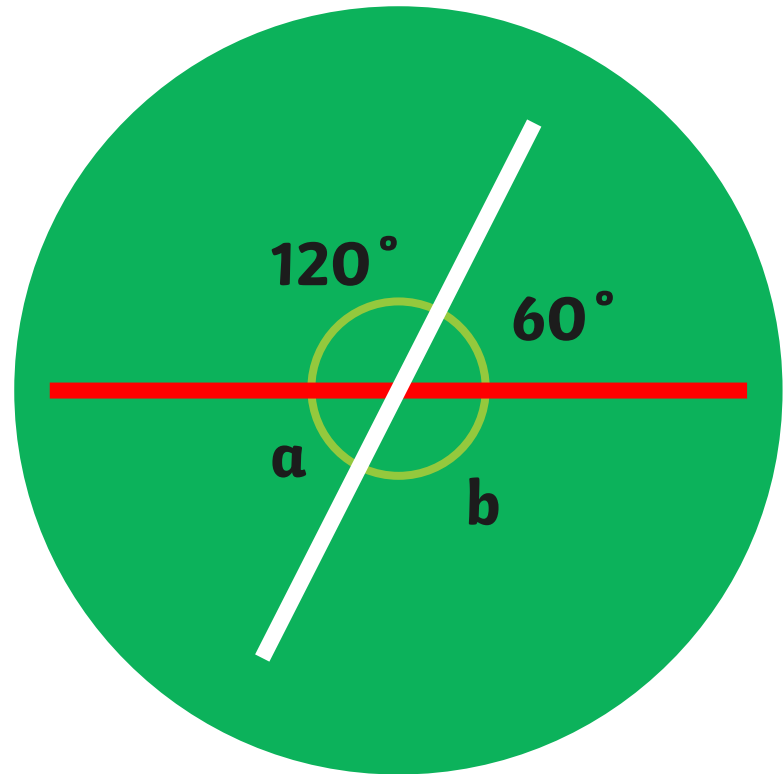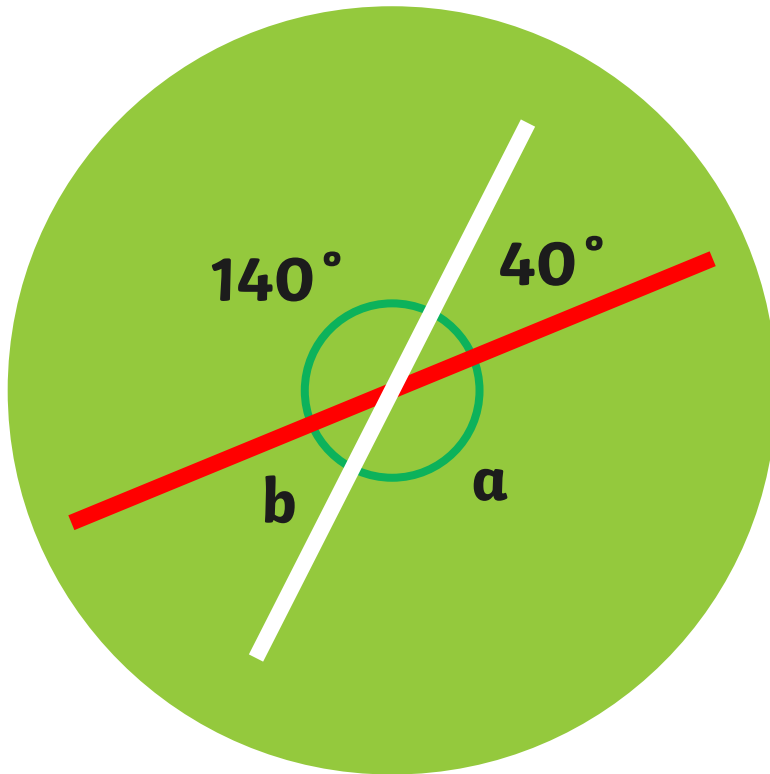
Vertically Opposite Angles

The pairs of angles that are opposite each other measure the same number of degrees and are equal (congruent).

144°

36°   **36°**

144°

These pairs of angles are called **vertically opposite angles.**

Missing Angles

Identify these missing angles using vertically opposite angle facts:

140° 40°
b a

120° 60°
a b

Have you noticed that adjacent angles are on a straight line and total 180°?

Missing Angles

Calculate the missing angles using known angle facts:

120°

60°

60°

120°

This is a vertically opposite angle.

This angle is adjacent to 120° on a straight line.

This is a

All the angles around the point total 360°.