**Angle Rules D**

**Motivation:**

Buildings: triangles help strength.

Designers need to be able to calculate forces using angles.

General skills: logical reasoning, structured arguments.

### Vocabulary:

Names of angles

* Acute
* Obtuse
* Reflex

Terms that relate to lines

* Adjacent
* A pair of parallel lines
* Perpendicular lines
* Transversal

**Prior knowledge:**

Angle rules

* Angles around a point add to 360
* Angles on a straight line add to 180
* Angles in a triangle add to 180
* (Vertically) Opposite Angles are equal
* ‘Base’ angles in an isosceles triangle are equal
* Corresponding angles are equal
* Alternate angles are equal
* Co-Interior angles add to 180

To write out your solutions to angle problems logically and clearly

**Check:**

x

60



80



Create your own angle problem which involves 2 or 3 of the rules.

**Prior knowledge:**

Know the names of quadrilaterals and their properties

**Check:**

Draw the following and mark on its properties.

Extension: write a description of its properties.

1. Rectangle
2. Rhombus
3. Trapezium
4. Kite
5. Parallelogram

Notes / Practice if necessary:

<https://teacher.desmos.com/polygraph/custom/5ae234427dca745769a320c9>

**Aim:**

To apply parallel and other angle rules within quadrilaterals

**Activities:**

Angles D practice

### Assessment:

Draw a pair of:

* Alternate angles
* Co-interior angles
* Corresponding angles

Show me how you lay out a solution to an angle problem.

x°

Extension question: An equilateral triangle is inside a rhombus. Find the value of x.