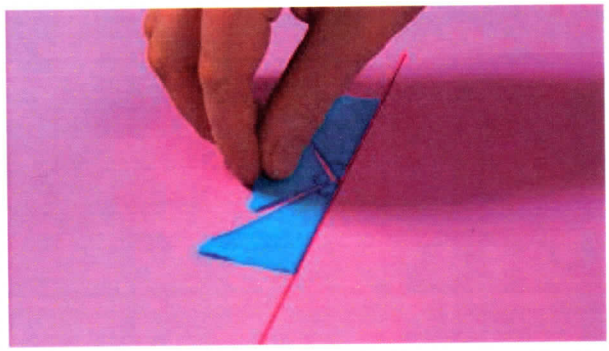
Triangles

Investigate how the angles of a triangle add up to 180 degrees.



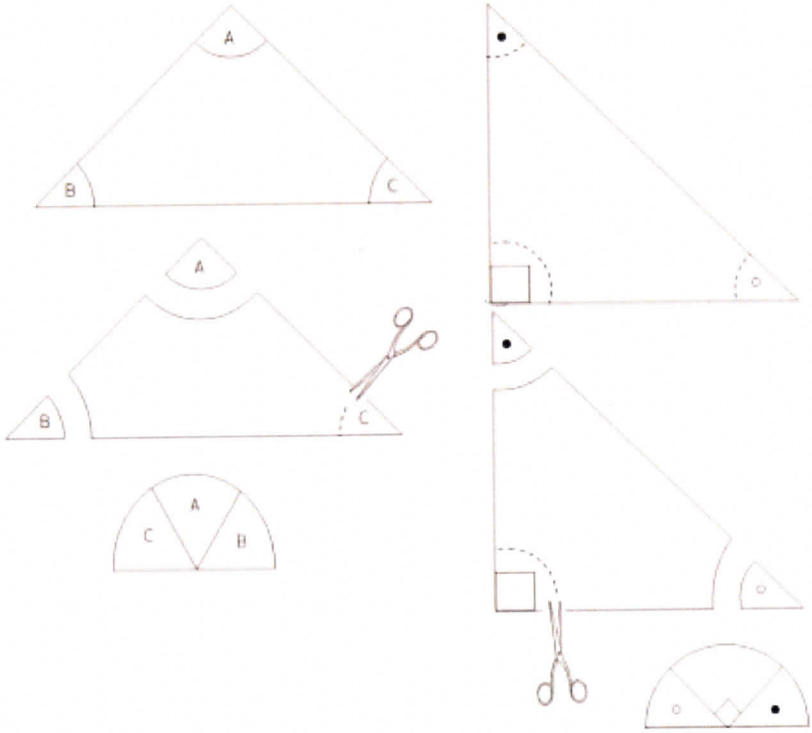
Draw and cut out any triangle.

Label each corner A, B and C.

Cut off each corner in an arc and keep them safe.

Draw a straight line (which is always 180 degrees).

Place the angle points together at the same point on the straight line as shown in this diagram and stick them down.



The example on the right is a right angle triangle. Have a go at doing one of those. Be careful with your measurements.

Try a few more examples to see how the three angles in a triangle will always add up to 180 degrees.

You can also watch this video which shows you how it is done:

https://www.youtube.com/watch?v=_yRDwYYjgOY&ab_channel=Simpson_Math

Find missing angles in a triangle

When you know that the angles of a triangle add up to 180˚ you can find missing angles.

If a triangle has angles A = 60˚ and B = 40˚. What is angle C?

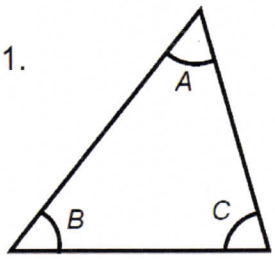
This is how you do it:

Add angle A and B = 60˚ + 40˚. That makes 100˚.

Subtract 100˚ from 180˚ = 180˚ - 100˚. That makes 80˚. Angle C is 80˚.

Find the missing angles in these triangles and show your working out.

1.



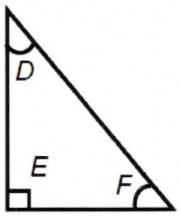
angle A = 52^0

angle B = 58^0

angle C = ...

Show your working out:

2.



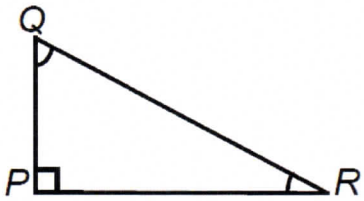
angle D = 23^0

angle E = 90^0

angle F = ...

Show your working out:

3.



angle P = 90^0

angle Q = ...

angle R = 38^0

Show your working out:

4. A triangle has two equal angles of 46^0.

What is the third angle? .....

Show your working out: