Y6 Extra Challenge Answers Tuesday 9th June.

Amir says,
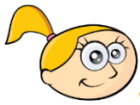
My triangle has two 90° angles.

Amir can't be correct because these two angles would add up to 180 degrees, and the third angle can't be 0 degrees.

Can Amir be correct? Can you demonstrate this?

Eva says,
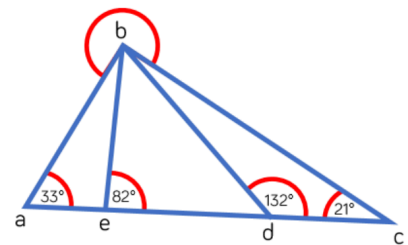
My triangle is a scalene triangle. One angle is obtuse. One of the angles measures 56°
The obtuse angle is three times the smallest angle.

The interior angles of Eva's triangle are 56°, 93° and 31°

Work out the size of each of the angles in the triangle.

Calculate the size of the reflex angle b.

234°

Alex

My angles are 70°, 70° and 40°

Mo

My angles are 45°, 45° and 90°

Eva

My angles are 60°, 60° and 60°

What type of triangle is each person describing?
Explain how you know.

Alex is describing an isosceles triangle.
Mo is describing an isosceles right-angled triangle.
Eva is describing an equilateral triangle.

Calculate the size of angles a, b and c.
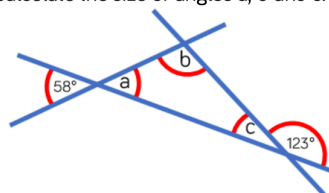
Give reasons for all of your answers.

a is 58 degrees because vertically opposite angles are equal.

c is 57 degrees because angles on a straight line add up to 180 degrees.

b is 65 degrees because angles in a triangle add up to 180 degrees.

I have an isosceles triangle.
One angle measures 42 degrees.

What could the other angles measure?

The angles could be:
42°, 42°, 96°
or
42°, 69°, 69°