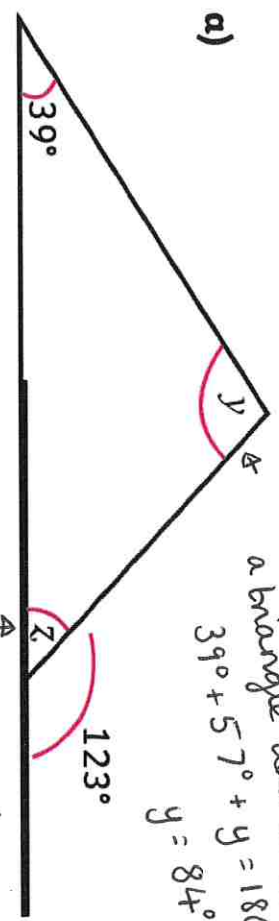


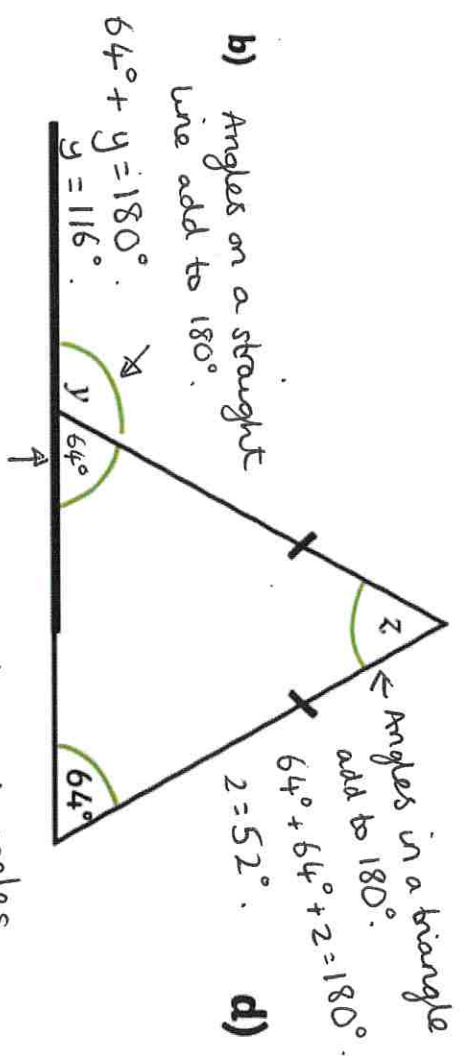


1) For each question, calculate the value of the angles y and z . Think carefully about what you know about angles around a point, on a straight line and in different types of triangles.



a) Second work out y . Angles in a triangle add to 180° .
 $39^\circ + 57^\circ + y = 180^\circ$
 $y = 84^\circ$

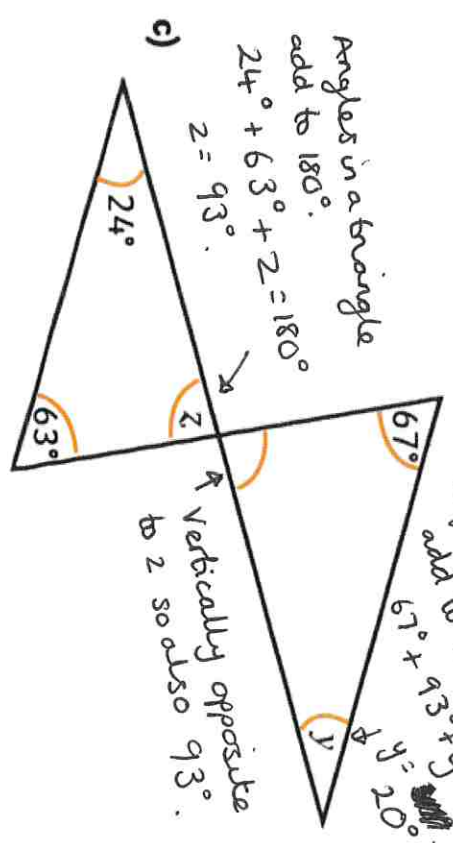
First work out z . Angles in a straight line add to 180° . $123^\circ + z = 180^\circ$
 $z = 57^\circ$



b) Angles on a straight line add to 180° .

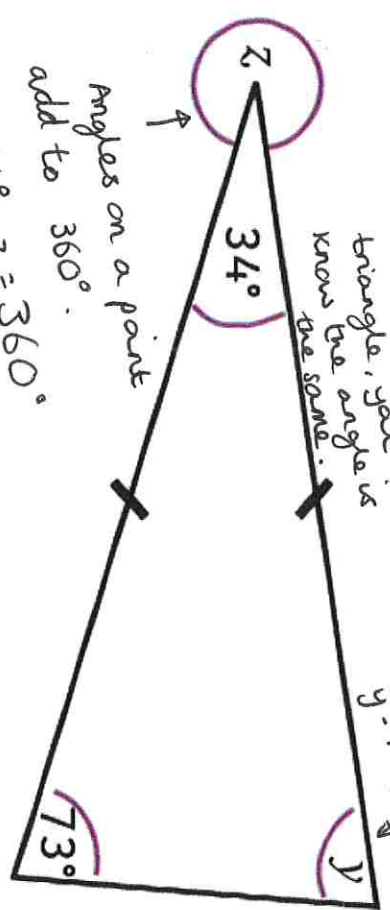
Angles in a triangle add to 180° .
 $64^\circ + 64^\circ + z = 180^\circ$
 $z = 52^\circ$

Start here. This is an isosceles triangle, so the 2 angles are the same, so 64° .



c) Angles in a triangle add to 180° .
 $24^\circ + 63^\circ + z = 180^\circ$
 $z = 93^\circ$

Angles in a triangle add to 180° .
 $67^\circ + 93^\circ + y = 180^\circ$
 $y = 20^\circ$
Vertically opposite to z so also 93° .



Angles on a point add to 360° .
 $34^\circ + z = 360^\circ$
 $z = 326^\circ$

or as it is an isosceles triangle, you know the angle is the same.
Angles in a triangle add to 180° .
 $34^\circ + 73^\circ + y = 180^\circ$
 $y = 73^\circ$