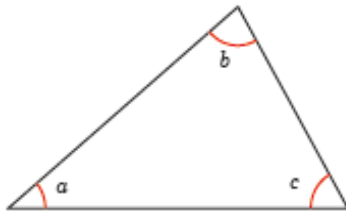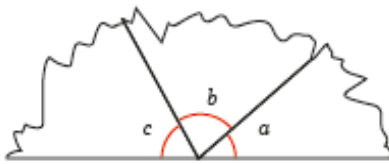This week we are recapping on 2D and 3D shapes.

LO: To calculate angles in a triangle (bronze)

1 Here is a triangle.

a) The three vertices are torn off the triangle and arranged on a straight line.

What is the sum of the three angles?

How do you know?

_____

2 Here is a triangle.

a) What type of triangle is it?
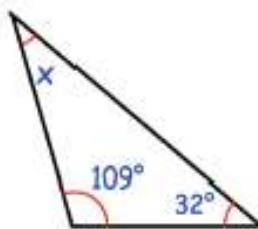
_____

How do you know?

_____

_____

b) Work out the size of angle m.
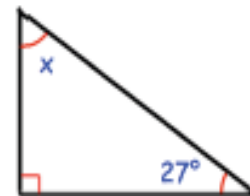
c) What do you notice?

d) Complete the sentence to describe the angles in an isosceles triangle.

In an isosceles triangle _____

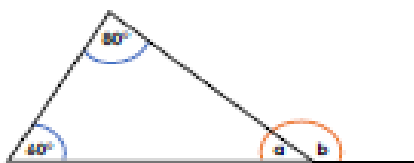**3** Calculate the size of angle x in this diagram

109°
32°

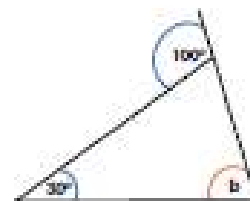**4** Calculate the size of angle x in this diagram

27°

5 Kelly says:

It is impossible for me to calculate all of the missing angles.

80°
40°   a b

Is Kelly correct? Explain why.

6 Saskia thinks that angle b measures 60°. Oscar thinks that angle b measures 70°.
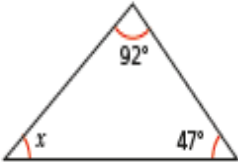
Who is correct? Explain why.

100°
30°   b

This week we are recapping on 2D and 3D shapes.

LO: To calculate angles in a triangle (silver)
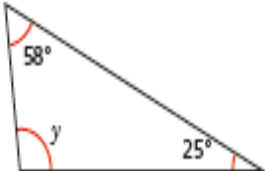
1 Work out the sizes of the unknown angles.

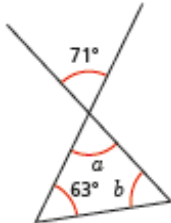Give reasons for your answers.

a)

$x =$ [ ] because _____

_____

b)

$y =$ [ ] because _____

_____

2 Work out the sizes of the unknown angles.

Give reasons for each stage of your working.

a)

$a =$ [ ] because _____

_____

$b =$ [ ] because _____

_____

b)

$d =$ [ ] because _____

_____

$e =$ [ ] because _____

_____

$f =$ [ ] because _____

_____

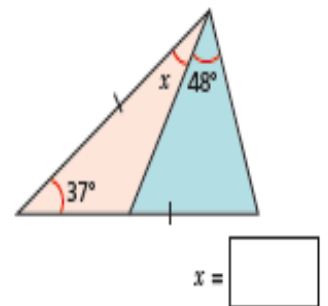**3** Dexter is working out the unknown angles in triangles.

I can't work out either of the missing angles because I don't have enough information.

Do you agree with Dexter? _____

Explain your answer.

4 Work out the size of angle x.

$x =$ [ ]

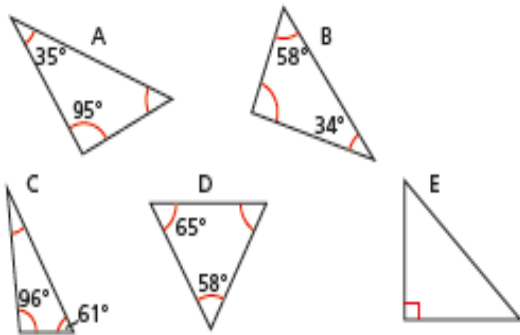**5** Jamie draws a triangle.

He says, *'Two of the three angles in my triangle are obtuse'.*

Explain why Jamie **cannot** be correct.

This week we are recapping on 2D and 3D shapes.
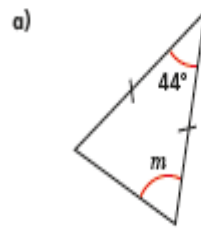
LO: To calculate angles in a triangle (gold)
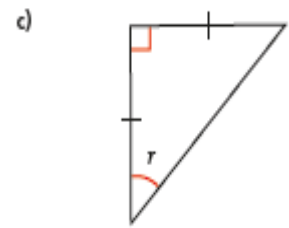
1 Sort the triangles into the table.

A
35° 95°

B
58° 34°

C
96° 61°

D
65° 58°

E

0 acute angles	1 acute angle	2 acute angles	3 acute angles

Are any of the columns empty? Why?

_____

_____

2 Work out the sizes of the unknown angles.

a)
44°
m

m = ☐

c)
r

r = ☐

b)
61°
n

n = ☐

d)
60°
s

s = ☐

3
37°
p
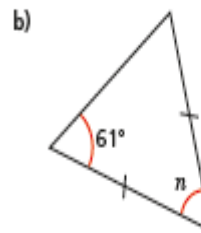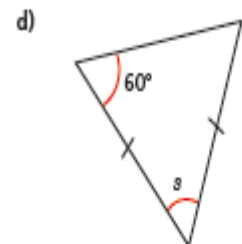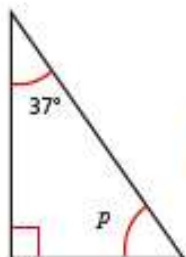
p = 143° because angles in a triangle sum to 180° and 180 – 37 = 143
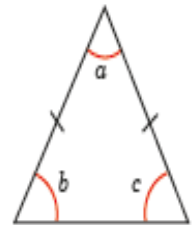
Do you agree with Ron? _____
Explain your answer.

4 Angle b is twice the size of angle a.
Work out the size of angle c.
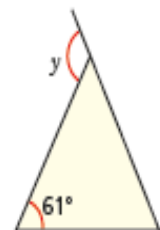
a
b   c

☐

5 Work out the size of angle x.

x 48°
37°

x = ☐

6 Here is an isosceles triangle.
Find two possible sizes of angle y.

y
61°

y = ☐ or ☐