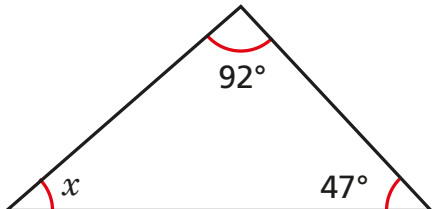
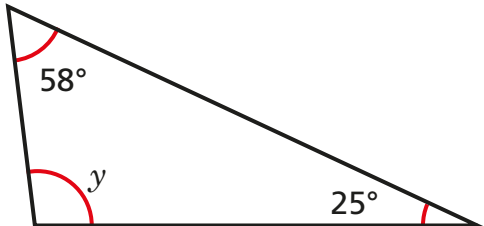
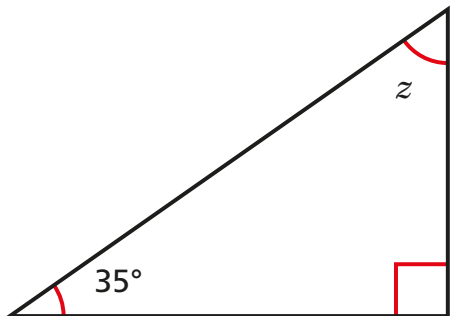


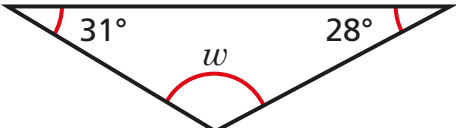
Know and apply the sum of angles in a triangle

1 Work out the sizes of the unknown angles.
Give reasons for your answers.

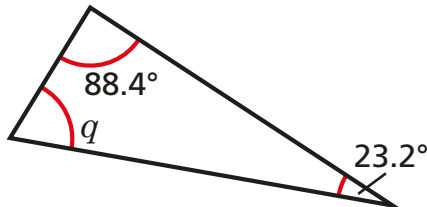
a)  $x = \boxed{}$ because _____

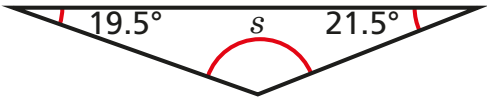
b)  $y = \boxed{}$ because _____

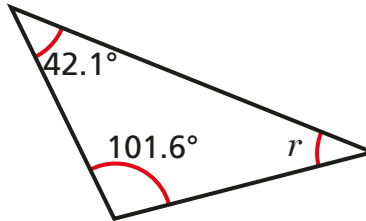
c)  $z = \boxed{}$ because _____

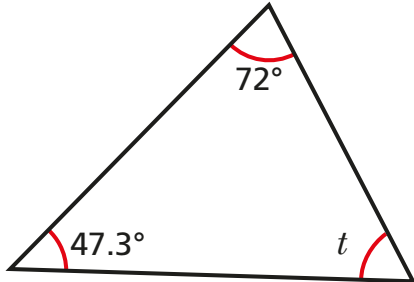
d)  $w = \boxed{}$ because _____

2 Work out the unknown angles.

a)  $q = \boxed{}$

c)  $s = \boxed{}$

b)  $r = \boxed{}$

d)  $t = \boxed{}$

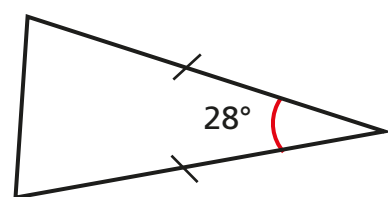
Discuss your reasons with a partner.

3 a) Two angles in a triangle are 42° and 57° .
What is the size of the third angle?

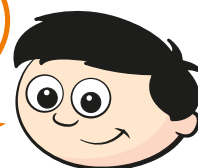
b) Two of the angles in a triangle are 12° .
What is the size of the third angle?

c) One of the angles in a triangle is 38° . Another angle is twice the size of the first angle.
What is the size of the third angle?

- 4 Dexter is working out the unknown angles in triangles.



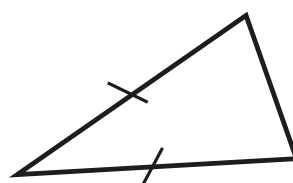
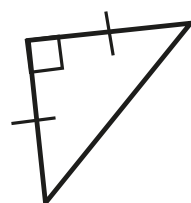
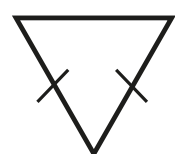
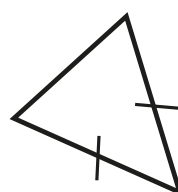
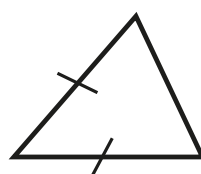
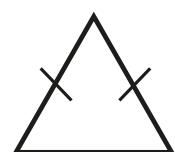
I can't work out either of the missing angles because I don't have enough information.



Do you agree with Dexter? _____

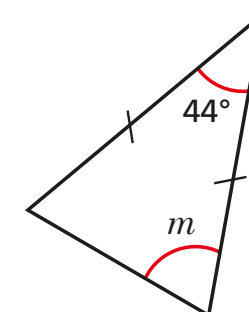
Explain your answer.

- 5 Identify and label the angles that will be equal in each triangle.



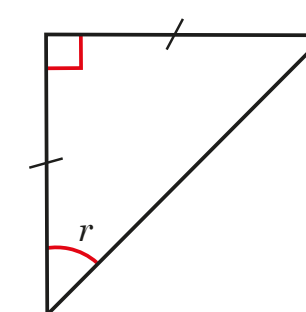
- 6 Work out the sizes of the unknown angles.

a)



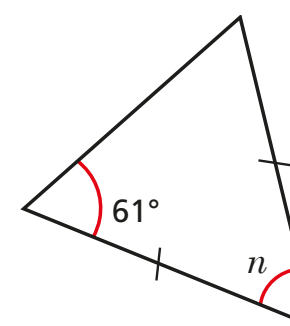
$$m = \boxed{}$$

c)



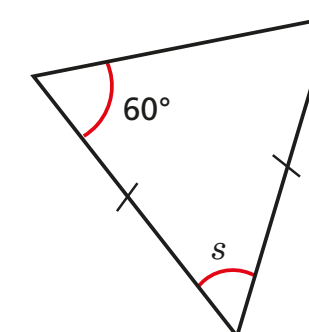
$$r = \boxed{}$$

b)



$$n = \boxed{}$$

d)



$$s = \boxed{}$$

What type of triangle is the triangle in part d)?

Talk about it with a partner.

- 7 One angle in an isosceles triangle is 29° .
What could the other angles be? Give two possible answers.

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

