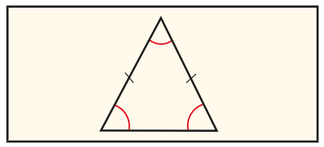
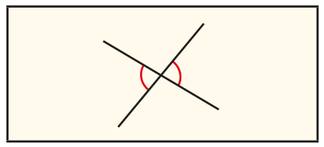
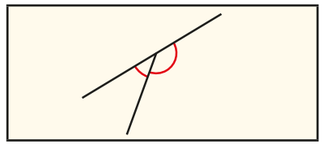
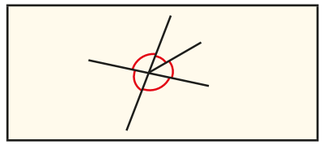
Angles in a triangle – missing angles

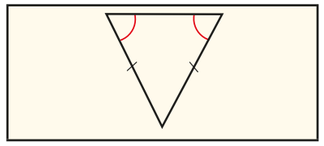
1 Match each diagram to the correct rule.











Angles on a straight line sum to 180°

Angles around a point sum to 360°

Angles in a triangle sum to 180°

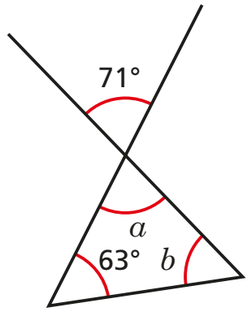
In an isosceles triangle, two angles are equal

Vertically opposite angles are equal

2 Work out the sizes of the unknown angles.

Give reasons for each stage of your working.

a)



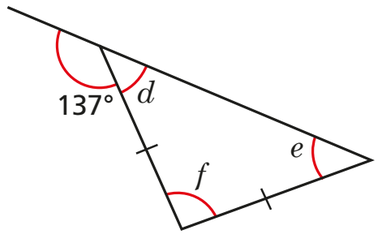
a = ☐ because _____

_____

b = ☐ because _____

_____

b)



d = ☐ because _____

_____

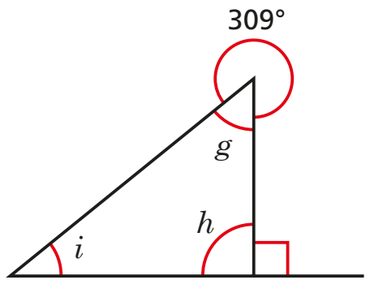
e = ☐ because _____

_____

f = ☐ because _____

_____

c)



g = ☐ because _____

_____

h = ☐ because _____

_____

i = ☐ because _____

_____

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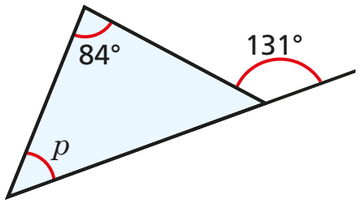
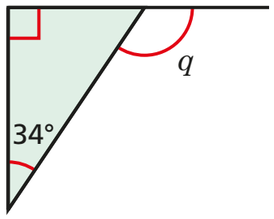
3 Work out the sizes of the angles marked with letters.

a)



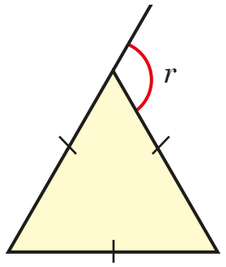
p = ☐

b)



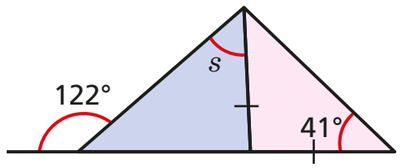
q = ☐

c)



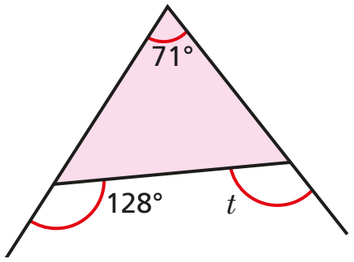
r = ☐

d)



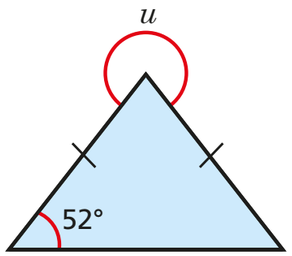
s = ☐

e)



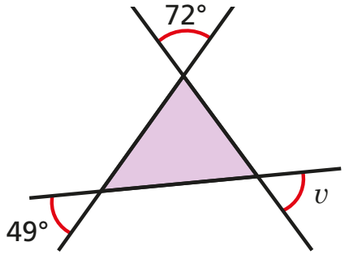
t = ☐

f)



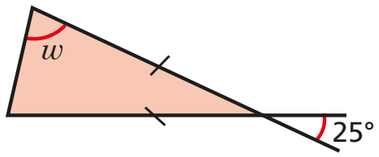
u = ☐

g)



v = ☐

h)

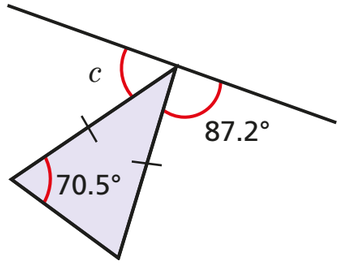


w = ☐

Talk about your reasons with a partner.

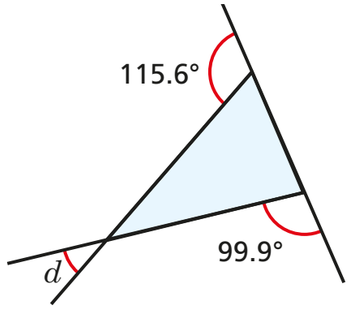
4 Work out the sizes of the unknown angles.

a)



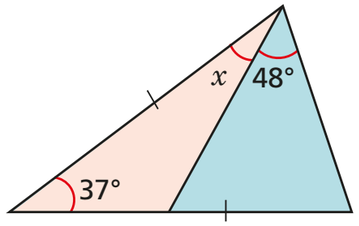
c = ☐

b)



d = ☐

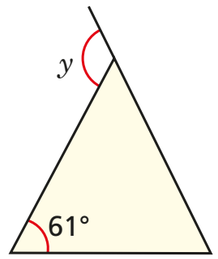
5 Work out the size of angle x.



x = ☐

6 Here is an isosceles triangle.

Find two possible sizes of angle y.



y = ☐ or ☐

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