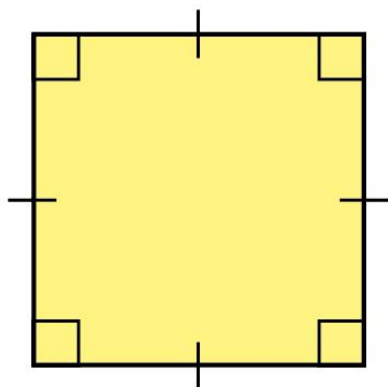


Angles in special quadrilaterals

1 Work out the sum of the angles in each shape.

a)



b)

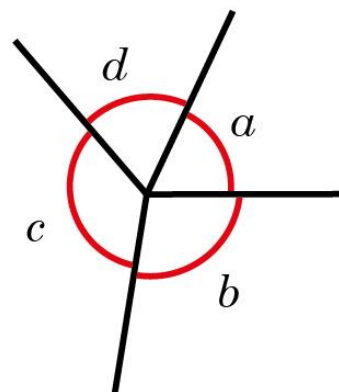
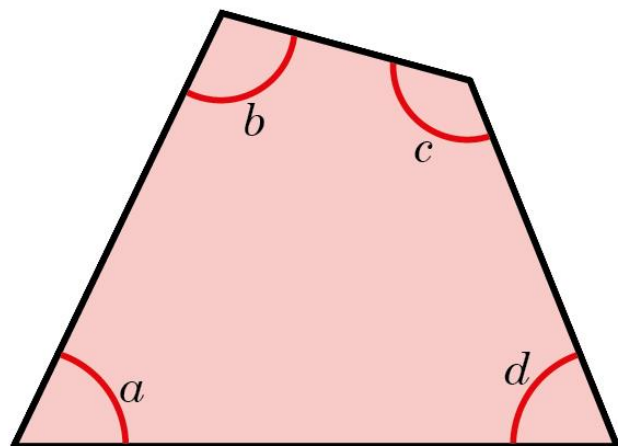


What do you notice?



2

The diagrams show the four vertices of a quadrilateral arranged around a point.



What do the diagrams illustrate about the sum of the angles in a quadrilateral?

Complete the sentence.

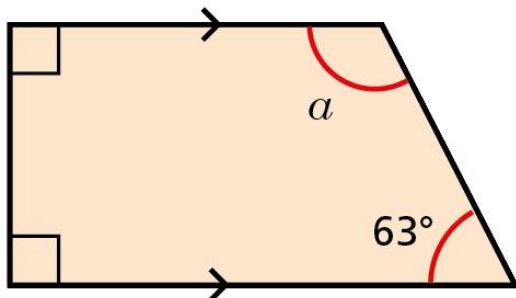
Angles in a quadrilateral _____



3

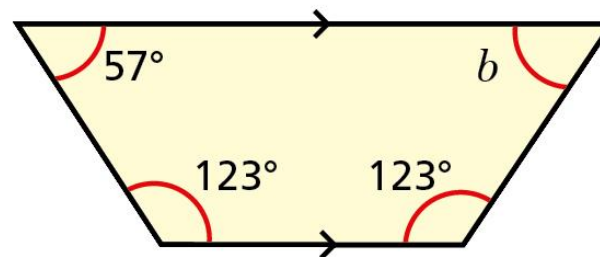
Work out the size of the unknown angle in each trapezium.

a)



$$a = \boxed{}$$

b)



$$b = \boxed{}$$

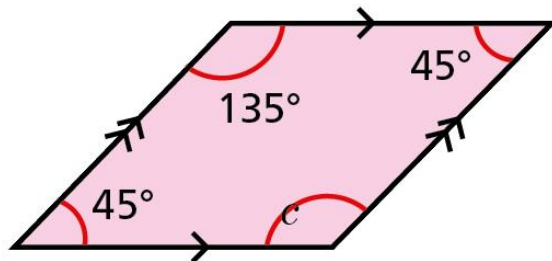
c) What is the same and what is different about the trapeziums?



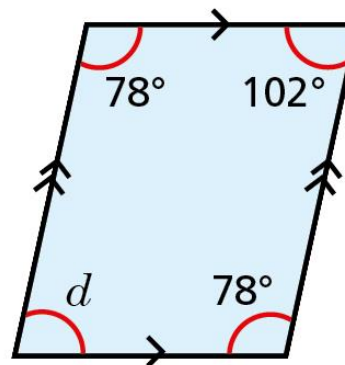
4

Work out the sizes of the unknown angles.

a)



b)



$c =$

$d =$

c) What do you notice about opposite angles in a parallelogram?

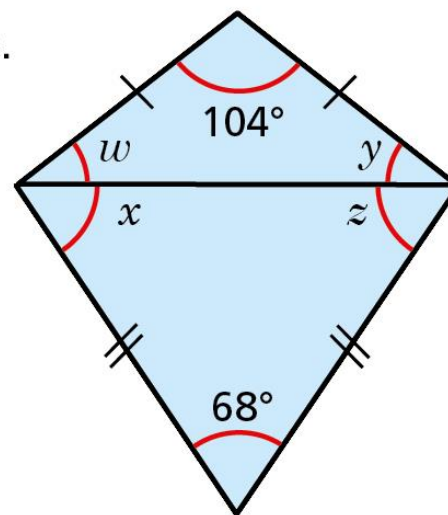
5

Two isosceles triangles are joined to form a kite.

a) Work out the sizes of the unknown angles.

$$w = \boxed{} \quad y = \boxed{}$$

$$x = \boxed{} \quad z = \boxed{}$$



b) Work out $w + x$.

c) Work out $y + z$.

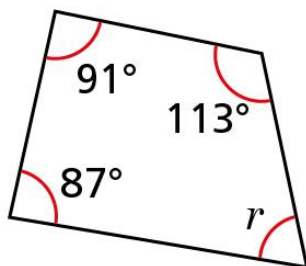
What do you notice? Talk about it with a partner.



6

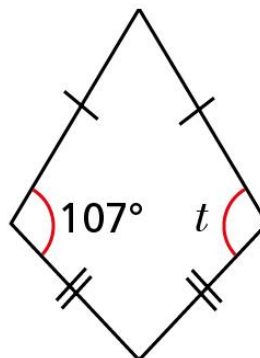
Work out the sizes of the unknown angles.

a)



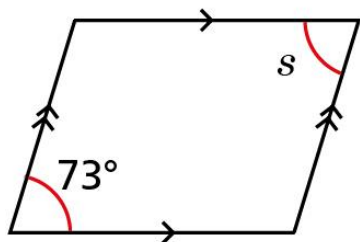
$$r = \boxed{}$$

c)



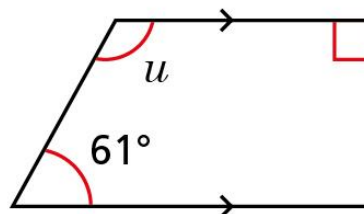
$$t = \boxed{}$$

b)



$$s = \boxed{}$$

d)



$$u = \boxed{}$$

Compare your reasoning with a partner.





7

Teddy is drawing a quadrilateral.

My quadrilateral has
exactly three right-angles.



Is Teddy's quadrilateral possible? _____

Explain your answer.
