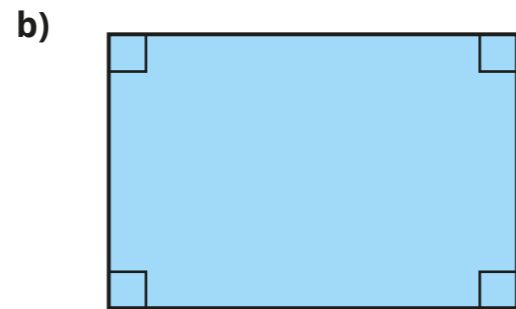
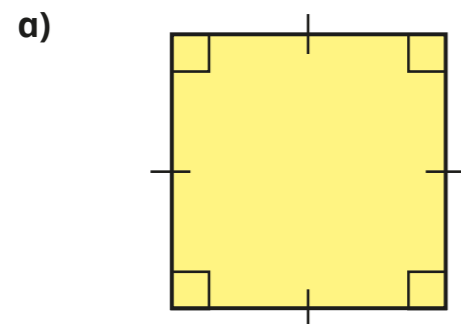


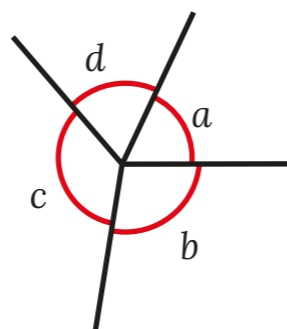
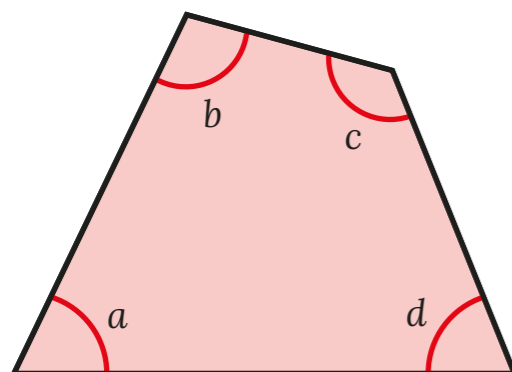
# Angles in a quadrilateral

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



What do you notice?

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

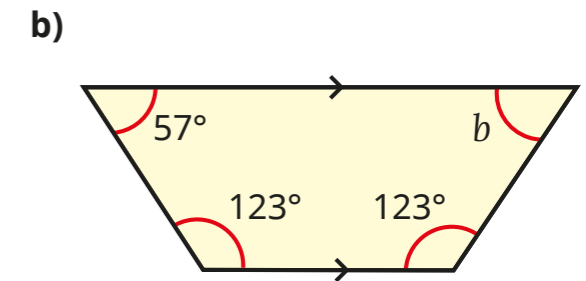
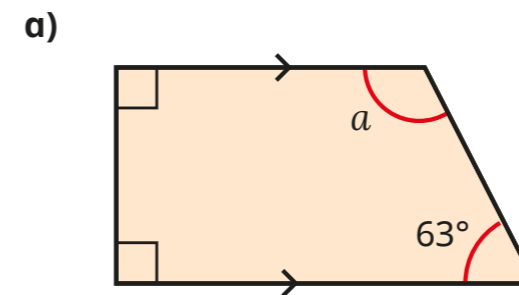


What do the diagrams illustrate about the sum of the angles in a quadrilateral?

Complete the sentence.

Angles in a quadrilateral \_\_\_\_\_

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

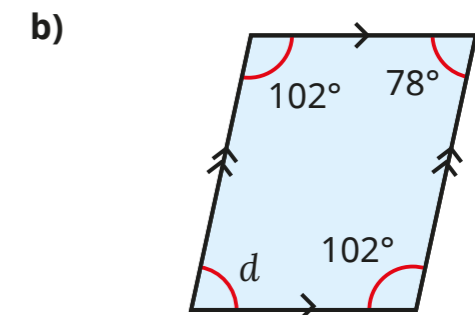
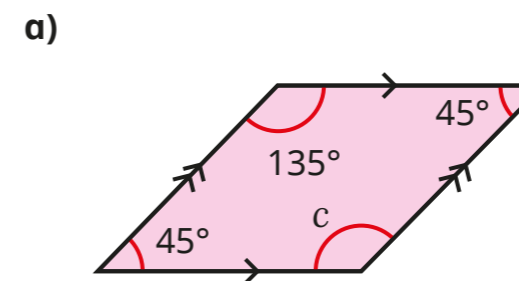


$a = \boxed{\phantom{000}}^\circ$

$b = \boxed{\phantom{000}}^\circ$

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

4 Work out the sizes of the unknown angles.



$c = \boxed{\phantom{000}}^\circ$

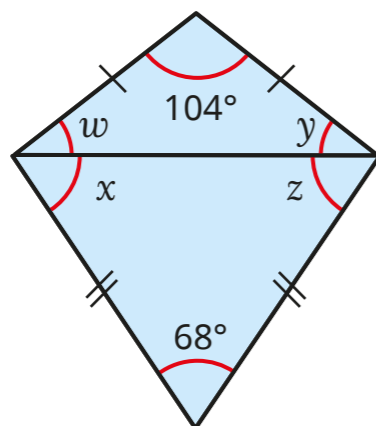
$d = \boxed{\phantom{000}}^\circ$

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.



$w = \square^\circ$     $y = \square^\circ$     $x = \square^\circ$     $z = \square^\circ$

b) Work out  $w + x$ .

$\square^\circ$

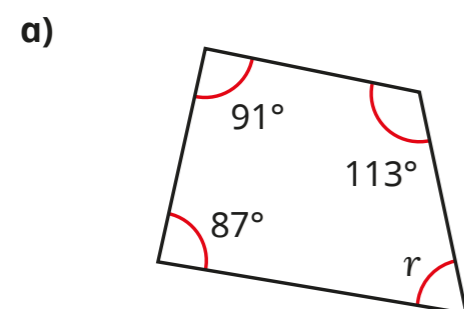
c) Work out  $y + z$ .

$\square^\circ$

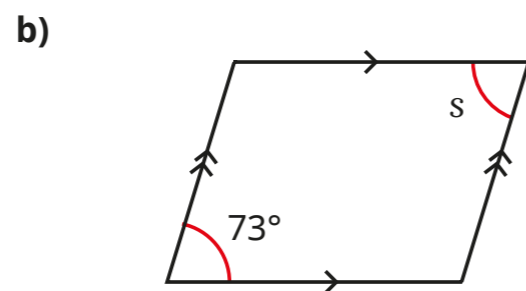
What do you notice? Talk about it with a partner.



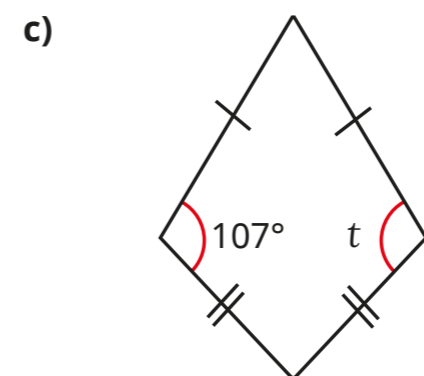
6 Work out the sizes of the angles marked with letters.



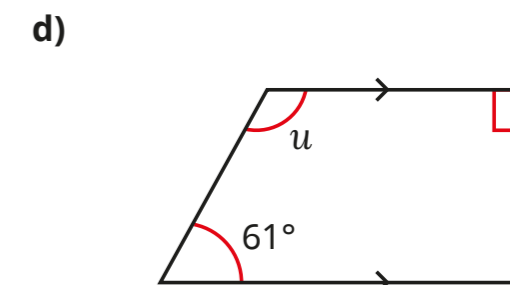
$r = \square^\circ$



$s = \square^\circ$



$t = \square^\circ$

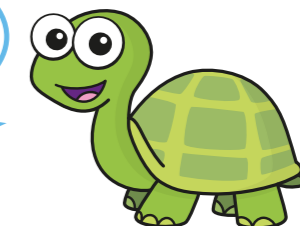


$u = \square^\circ$

Compare your reasoning with a partner's.

7 Tiny is looking at a shape.

This quadrilateral has exactly three right angles.



Is Tiny's shape a quadrilateral? \_\_\_\_\_

Explain your answer.

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