WALT: know the properties of quadrilaterals

WILF:

I can recognise quadrilaterals and polygons.

I can calculate missing angles.

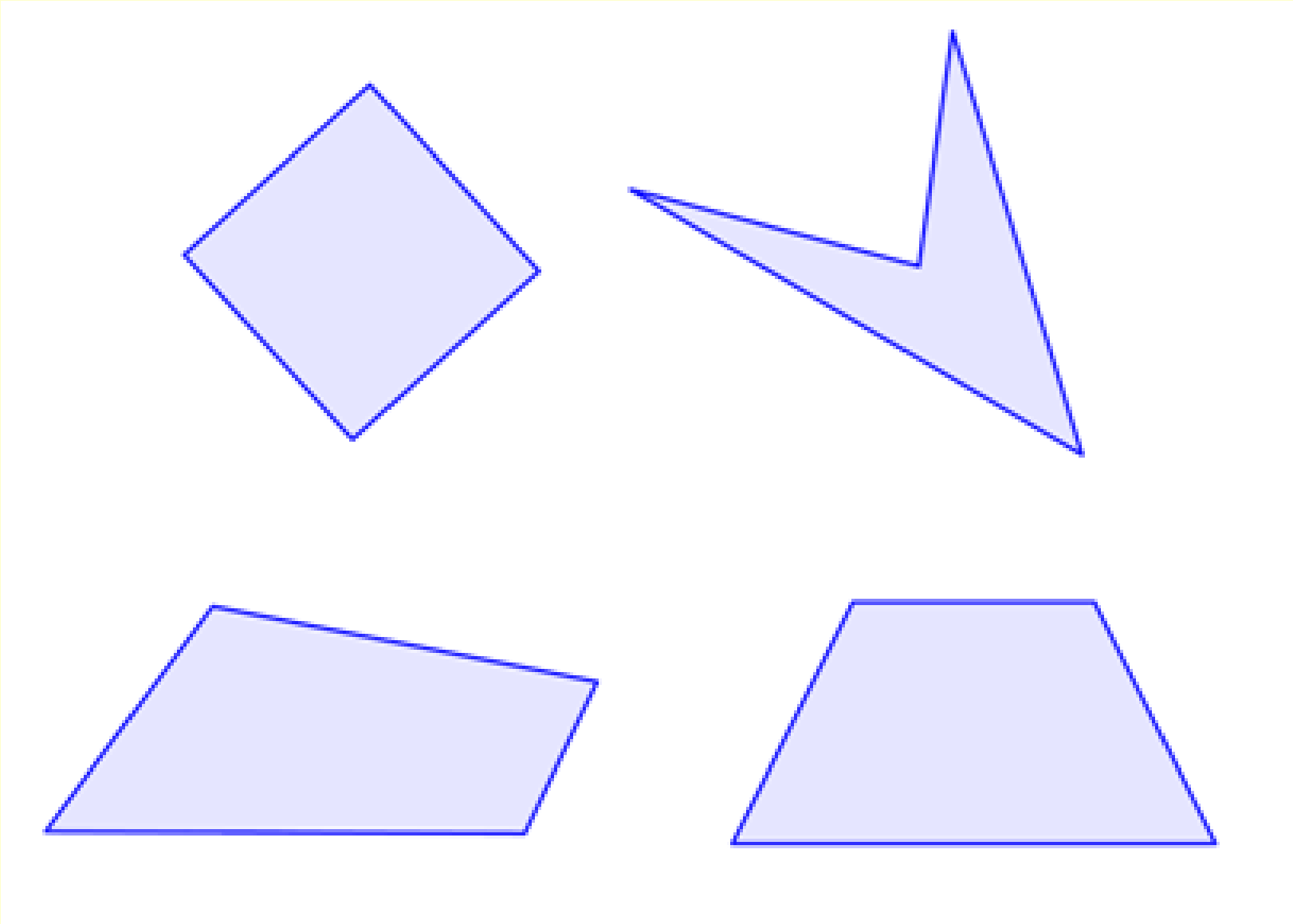
25636

a) What digit is in the hundreds column?
b) Divide the number by 100.
c) How many tenths are there in your new number?
d) Subtract the new number from the original number.

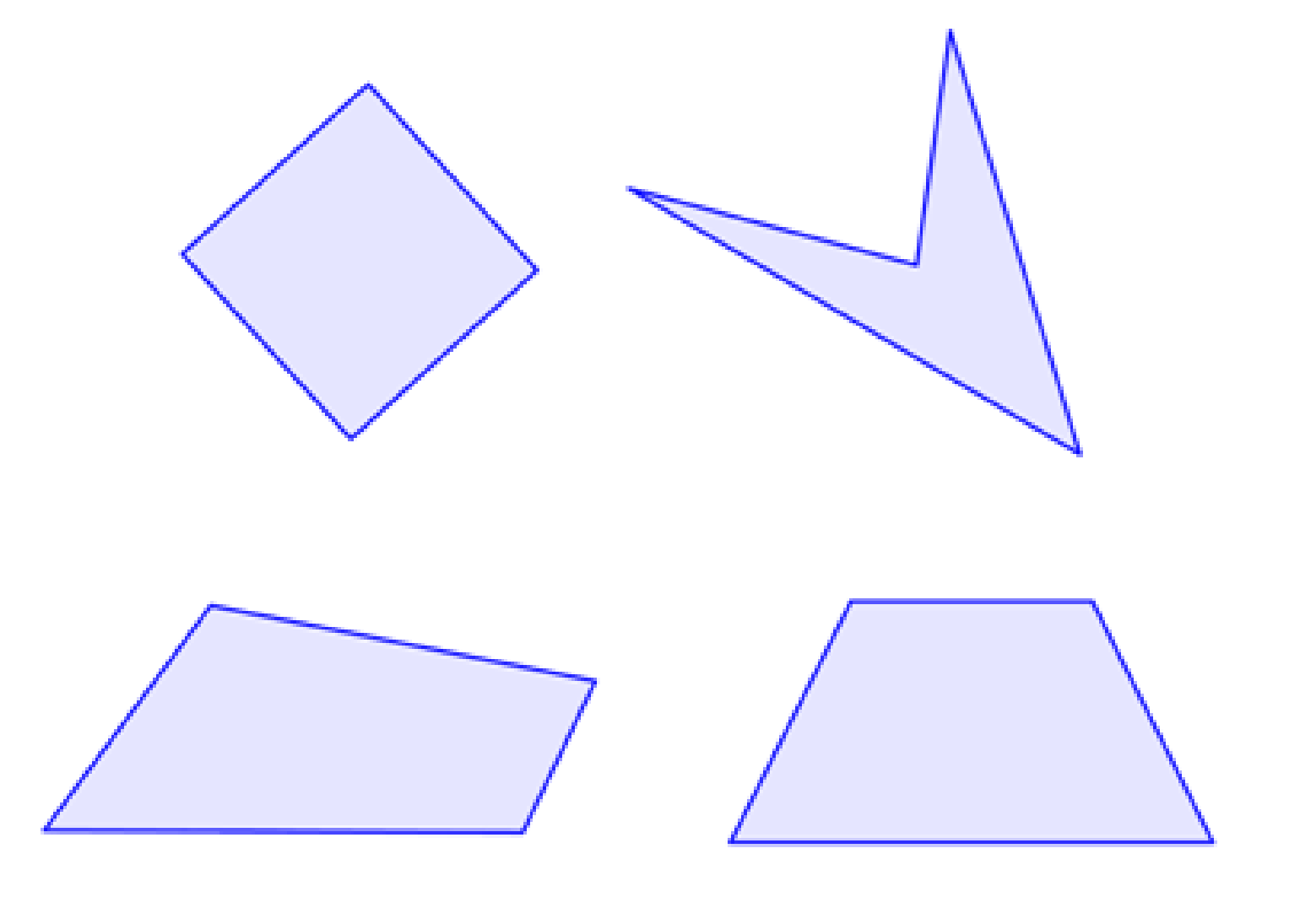
25636

a) What digit is in the hundreds column? 6
b) Divide the number by 100. 256.36
c) How many tenths are there in your new number? 3
d) Subtract the new number from the original number. 25636 – 256.36 = 25379.64

Which ones are quadrilaterals?



Which ones are quadrilaterals?
They all are!



What is a quadrilateral?

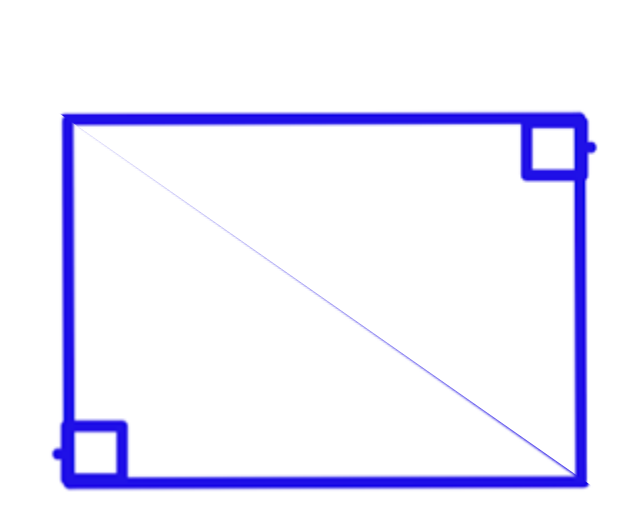
It is a four sided shape.

The word ‘quad’ means 4.

I remember it by quad – quad bike 4 wheels

How much do the angles add up to in a quadrilateral?

- It's 360°



A way to remember is that angles in a triangle add up to 180°

A rectangle can be made from 2 right angle triangles.

So 180 °x 2 = 360°

How much do the angles add up to in a quadrilateral?

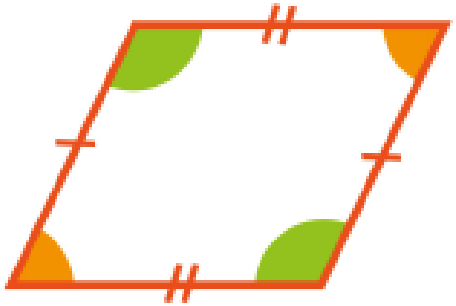
- 360°

90 + 90 + 90 + 90 = 360

Is this the same for all quadrilaterals? Yes

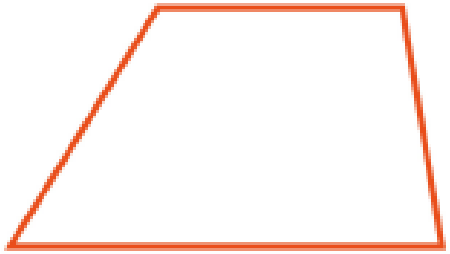
Types of Quadrilateral

parallelogram



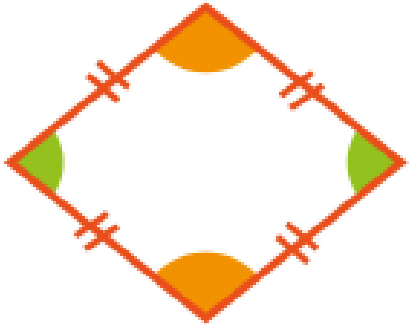
2 pairs of equal parallel sides
Diagonally opposite angles are equal

trapezium



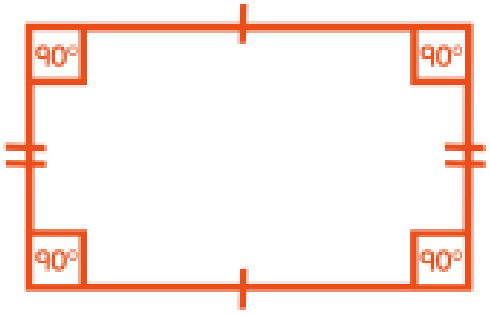
1 pair of sides are parallel

rhombus



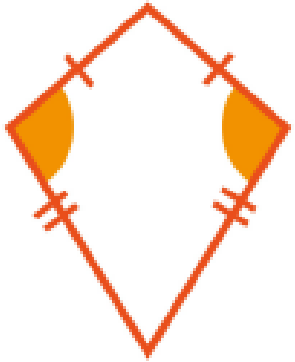
All sides are equal
Diagonally opposite angles are equal

rectangle



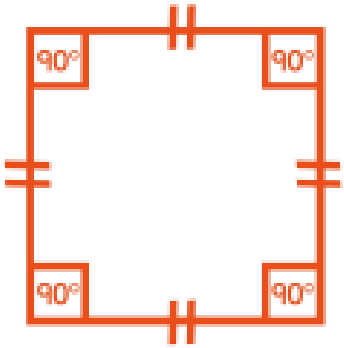
2 pairs of equal parallel sides
4 right angles (90°)

kite

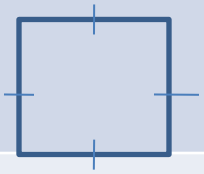
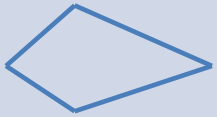


Horizontally opposite angles are equal
2 pairs of equal sides

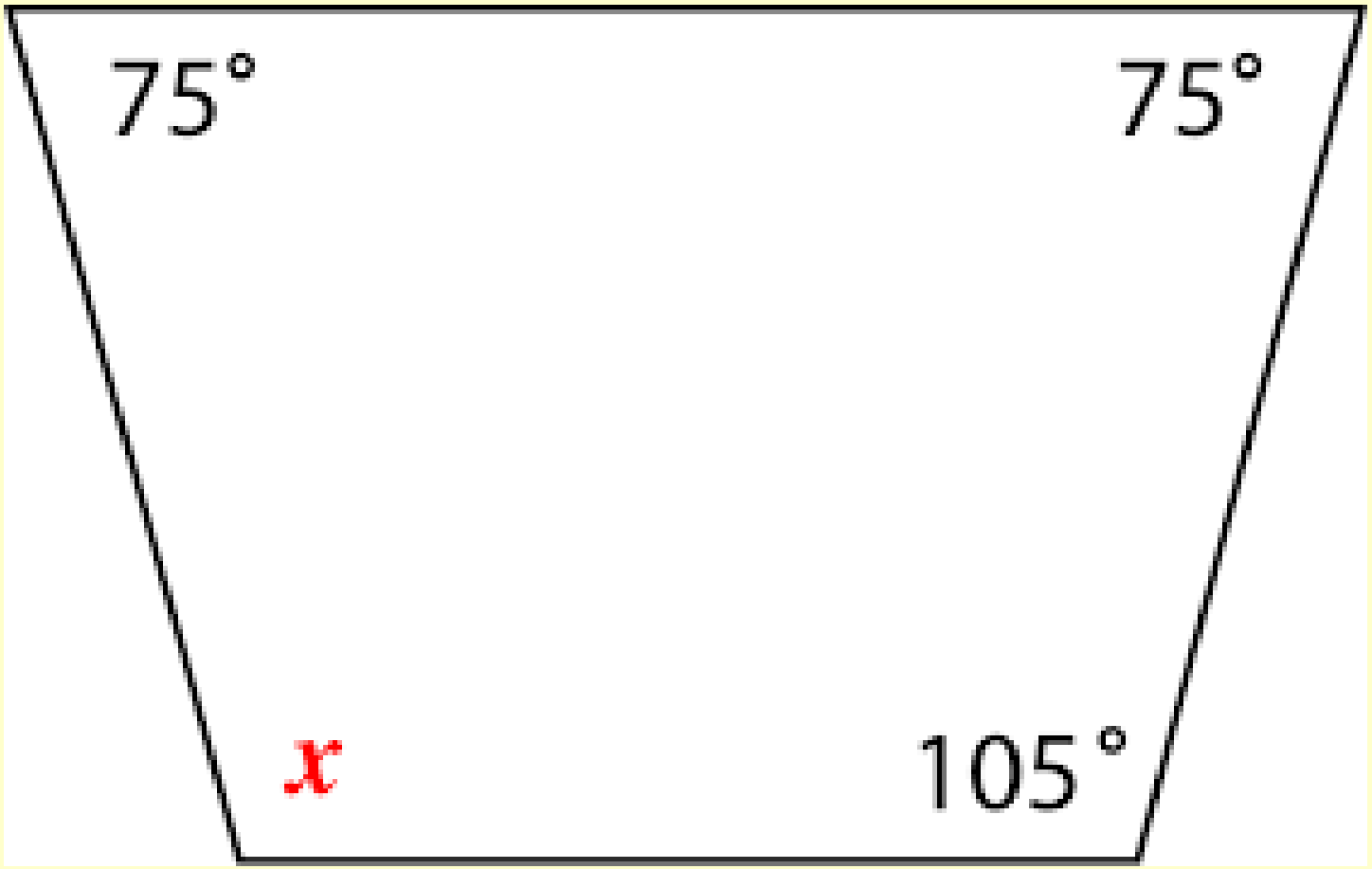
square



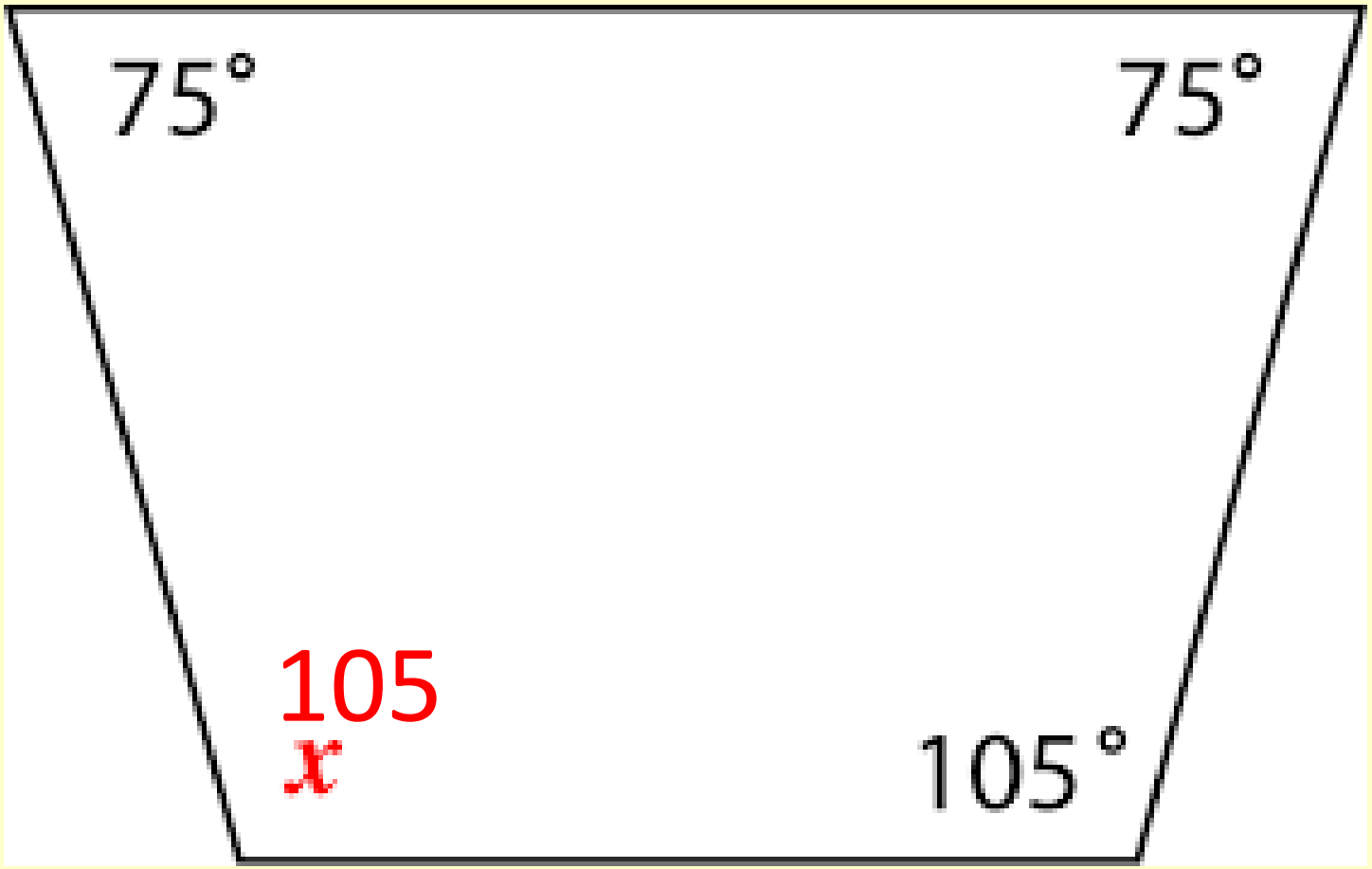
4 equal parallel sides
4 right angles (90°)

Sketch	Name	Sides	Parallel Sides	Angles	Line Symmetry	Rotational Symmetry
	Square	4 equal sides	2 pairs	4 90^o angles	4	4
	Rectangle	2 pairs of equal sides	2 pairs	4 90^o angles	2	2
	Rhombus	4 equal sides	2 pairs	2 pairs equal angles	0	2
	Parallelogram	2 pairs of equal sides	2 pairs	2 pairs of equal angles	0	2
	Trapezium	All different	1 pair	All different	0	0
	Isosceles Trapezium	2 equal	1 pair	2 pairs equal angles	1	0
	Kite	2 pairs adjacent sides equal	None	1 pair of opposite equal	1	0

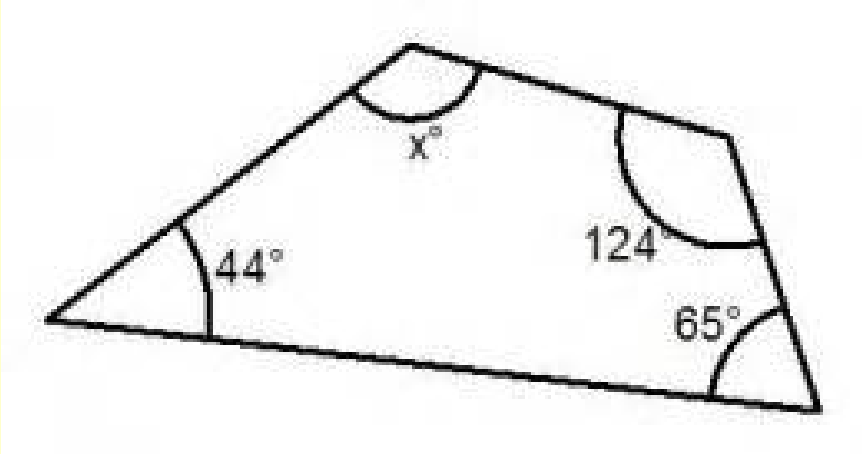
What is the missing angle in this type of trapezium?

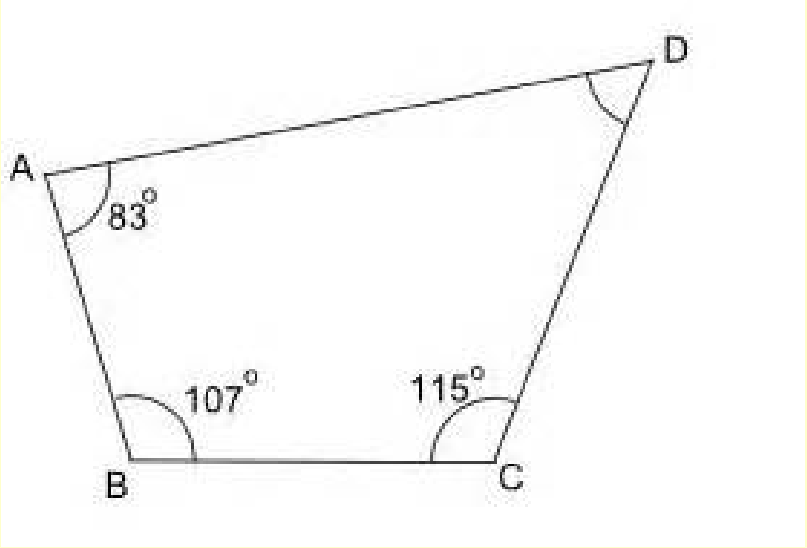


What is the missing angle in this isosceles trapezium?

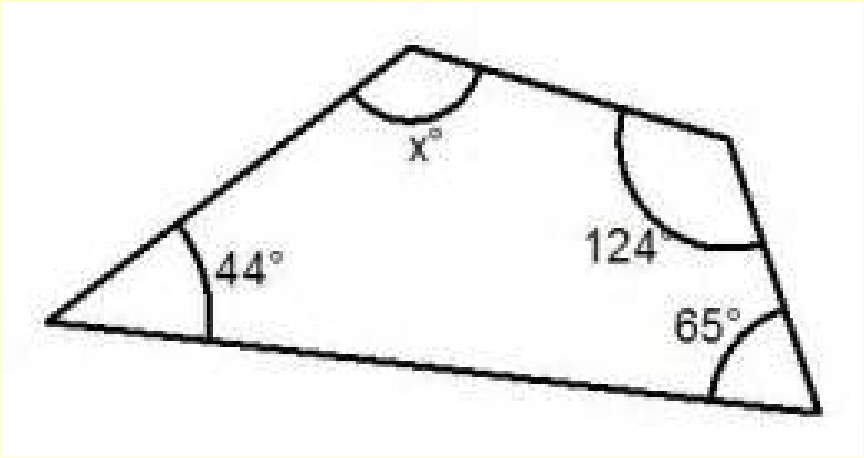


Find the missing angles.





Find the missing angles.

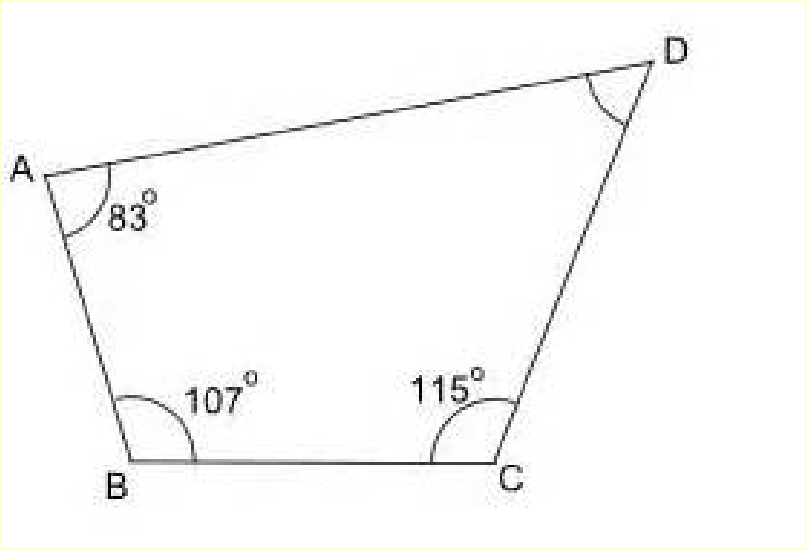


124 +44 +65 = 233

360 – 233 = **127 degrees**

115 + 107 + 83 = 305

360 – 305 = **55 degrees**



Task

- Using the sheet, cut out the quadrilaterals and match them to their correct properties.
- If you can't print the sheet, draw them into your book and write the properties of each shape next to it using bullet points:

Parallelogram

- 2 pairs of parallel lines
- 2 pairs of sides that are equal in length
- Opposite angles are equal
- No lines of symmetry