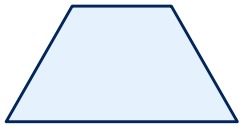
GCSE FOUNDATION · REVISION MAT 4

Properties of 2D shapes

1 A quadrilateral has opposite sides equal and parallel, no right angles, sides not all equal.

What type of quadrilateral is it?

2 Here is a isosceles trapezium.

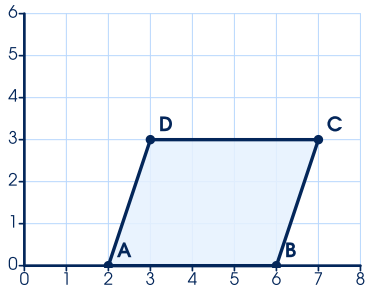


(a) How many lines of symmetry does it have?

(b) What is its order of rotational symmetry?

3 Is a kite a rhombus?
Explain your answer.

4 ABCD is drawn on the grid.

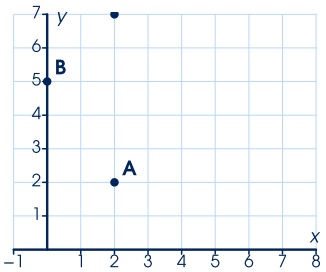


Show that ABCD is a parallelogram.

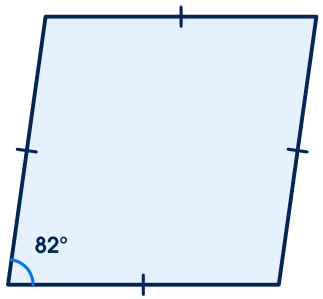
5 A, B and C are three vertices of a kite ABCD.
A (2, 2), B (0, 5), C (2, 7).

The line AC is a line of symmetry.

Find the coordinates of D.



6 This rhombus has sides of 4.5 cm and one angle of 82°.



(a) Work out the sizes of the other three angles.

(b) Work out the perimeter.

1 **Parallelogram**

2 (a) **1**

(b) **1**

3 Not always: a kite has two pairs of equal adjacent sides, but all four sides do not have to be equal.

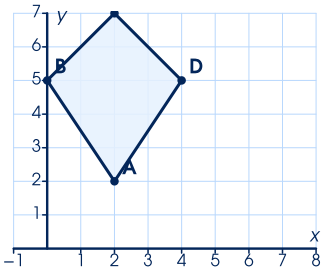
ANSWERS · REVISION MAT 4

Properties of 2D shapes

4 AB: $\begin{pmatrix}4\\0\end{pmatrix}$ and DC: $\begin{pmatrix}4\\0\end{pmatrix}$

AB and DC are equal and parallel (and so are AD and BC), so ABCD is a **parallelogram** ✓

5



D = **(4, 5)**

6 (a) Opposite angles are equal; adjacent angles add to 180°.

98°, 82° and 98°

(b) 4 × 4.5 = **18 cm**