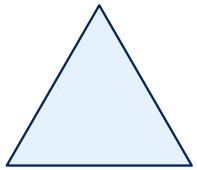
GCSE FOUNDATION · REVISION MAT 3

Properties of 2D shapes

1 A quadrilateral has two pairs of equal adjacent sides and one line of symmetry.

What type of quadrilateral is it?

2 Here is a equilateral triangle.

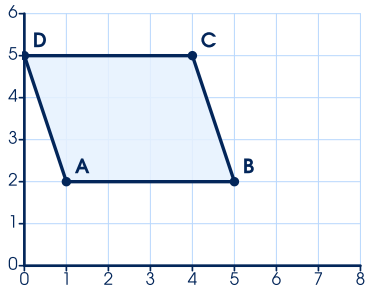


(a) How many lines of symmetry does it have?

(b) What is its order of rotational symmetry?

3 Is a rectangle a parallelogram?
Explain your answer.

4 ABCD is drawn on the grid.

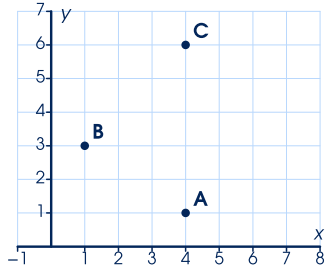


Show that ABCD is a parallelogram.

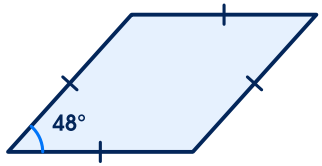
5 A, B and C are three vertices of a kite ABCD.
A (4, 1), B (1, 3), C (4, 6).

The line AC is a line of symmetry.

Find the coordinates of D.



6 This rhombus has sides of 7 cm and one angle of 48°.



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

(b) Work out the perimeter.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Properties of 2D shapes

1 **Kite**

2 (a) **3**

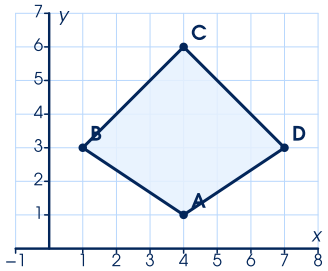
(b) **3**

3 Yes: a rectangle has two pairs of parallel sides, so it is a special parallelogram.

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 = **(7, 3)**

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

132°, 48° and 132°

(b) 4 × 7 = **28 cm**