GCSE HIGHER · REVISION MAT 5

Properties of quadrilaterals

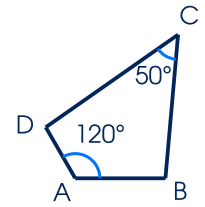
1 Which quadrilateral has rotational symmetry of order 4?

2 How many lines of symmetry does a rectangle have?

3 Explain why a parallelogram that is not a rhombus or rectangle has no lines of symmetry.

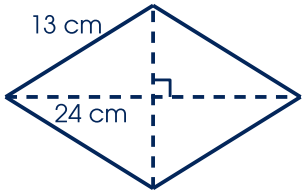
4 In kite ABCD, angle A = 120°, angle C = 50° and angle B = angle D.

Find angle B.



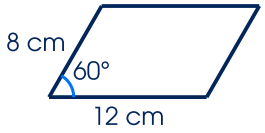
5 A rhombus has sides of 13 cm and one diagonal of 24 cm.

Show that the other diagonal is 10 cm.



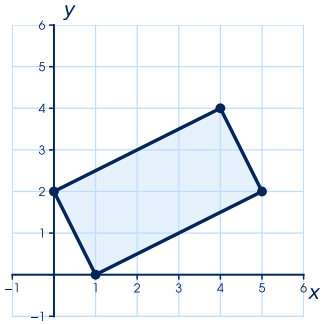
6 A parallelogram has a base of 12 cm, sides of 8 cm and an angle of 60°.

Find its area.



7 Explain why an isosceles trapezium has a line of symmetry.

8 A(1, 0), B(5, 2), C(4, 4), D(0, 2).



Show that ABCD is a rectangle and find its area.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Properties of quadrilaterals

1 Square

2 2

3 Folding along any line does not match its sides and angles.

4 $360 - 170 = 190$

$95°$

5 $\sqrt{169 - 144} = 5$

$2 \times 5 = 10$ cm

6 $12 \times 8 \sin 60°$

83.1 cm^2

7 The perpendicular bisector of the parallel sides reflects each slanted side onto the other.

8 AB = (4, 2), BC = (−1, 2): gradients $\frac{1}{2}$ and −2, perpendicular

$\sqrt{20} \times \sqrt{5}$

Rectangle; area 10 units^2

Mr&Mrs MATHS