GCSE HIGHER · REVISION MAT 1

Properties of quadrilaterals

1 Name a quadrilateral with exactly one pair of parallel sides.

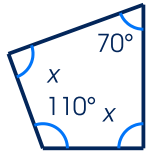
2 How many lines of symmetry does a rhombus have?

3 Explain why every square is a rectangle but not every rectangle is a square.

4 A kite has one pair of equal angles.

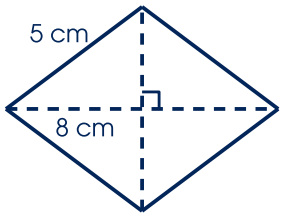
Its other two angles are 110° and 70°.

Find the size of each equal angle.



5 A rhombus has sides of 5 cm and one diagonal of 8 cm.

Show that the other diagonal is 6 cm.

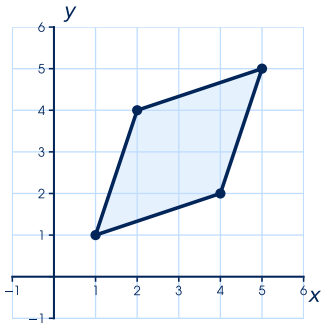


6 In parallelogram ABCD, angle A = $(2x + 10)°$ and angle B = $(3x - 30)°$.

Find the angles and name the special quadrilateral.

7 Explain why a quadrilateral whose diagonals bisect each other at right angles is a rhombus.

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



Show that ABCD is a rhombus but not a square.

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Properties of quadrilaterals

1 **Trapezium**

2 **2**

3 **A square has four right angles; a rectangle need not have four equal sides.**

4 360 – 180 = 180

90° each

5 Diagonals bisect at right angles: $\sqrt{25 - 16} = 3$

Other diagonal 2 × 3 = 6 cm

6 $5x - 20 = 180 \Rightarrow x = 40$

A = 90°, B = 90°

All angles 90°: a rectangle

7 **Four congruent right-angled triangles are formed, so all four sides are equal.**

8 All sides $\sqrt{10}$

Diagonals $\sqrt{32}$ and $\sqrt{8}$ are different

Rhombus, not a square

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