

Practice Sheet Answers

Properties of polygons - quadrilaterals (mild)

1. Rhombus. It has four equal sides, the opposite sides are parallel and the diagonals bisect each other at right angles.

2. $a = 116^\circ$

$b = 60^\circ$

$c = 92^\circ$

$d = 92^\circ$

$e = 86^\circ$

$f = 94^\circ$

$g = 76^\circ$

$h = 104^\circ$

i) c and d are equal

ii) e and f add up to 180°

iii) g and h add up to 180°

3. Check that the children have drawn a four-sided shape with two sides perpendicular (at right angles) to one another.

Challenge

Check the children have drawn two more quadrilaterals and that they have noticed that all the internal angles always add up to 360° .

Investigating quadrilaterals (mild)

The diagonals of a square and rhombus cross at right angles; the diagonals of a square, rhombus, rectangle and parallelogram bisect each other.

Exploring quadrilaterals (hot)

- 1.
- a) True
 - b) True
 - c) False
 - d) True
 - e) False
 - f) False
 - g) False.

- 2.
- a) 1 pair
 - b) Q
 - c) 2 pairs: making them both parallelograms
 - d) Trapezium: one pair of parallel sides
 - e) Kite: 2 pairs of adjacent equal sides, has 2 right angles (not all kites have this latter property), diagonals bisect at right angles