

## 7.1 Quadrilaterals

### Core

- 1 **a** square, rectangle  
**b** square, rhombus  
**c** rectangle, parallelogram, kite  
**d** rectangle, rhombus, square, parallelogram  
**e** square, rhombus, kite  
**f** trapezium

2  $a = 40^\circ, b = 140^\circ, c = 40^\circ$

3  $p = 120^\circ, q = 120^\circ, r = 60^\circ$

4  $x = 90^\circ, y = 115^\circ$

### Depth

- 1 **a**  $a = 90^\circ, b = 5 \text{ cm}$   
**b**  $c = 115^\circ, d = 65^\circ, e = 115^\circ, f = 8 \text{ cm}$   
**c**  $m = 130^\circ, n = 50^\circ, p = 130^\circ, q = 3 \text{ m}, r = 3 \text{ m}$
- 2 **a** trapezium,  $e = 100^\circ$  (angle sum of a quadrilateral)  
**b** parallelogram,  $a = 75^\circ$  (vertically opposite angles),  $b = 105^\circ$  (angles on a straight line),  $c = 45^\circ$  (angle sum of a triangle),  $d = 70^\circ$  (adjacent angles in a parallelogram total  $180^\circ$ )
- 3  $a = 60^\circ$ , the angle at the centre  $= 360^\circ \div 6 = 60^\circ$ , so the largest angle in the parallelogram is  $(360^\circ - 60^\circ - 60^\circ) \div 2 = 120^\circ$ . So,  $a = 180^\circ - 120^\circ = 60^\circ$  (angles on a straight line)

### Support

- 1 Rectangle B, C, F; Rhombus A, C, G; Trapezium D, G; Parallelogram B, C, G; Kite B, E, G
- 2 **a**  $x = 100^\circ$   
**b**  $x = 75^\circ$
- 3 **a**  $b = 55^\circ$   
**b**  $a + c = 250^\circ$   
**c**  $a = c = 125^\circ$