

Solutions

Marking: **M1** a correct method, **A1** the correct answer.

Each answer shows the steps, then the **result**.

2.1

- it is greater than 180°

reflex

2.2

- 8 sides is an **octagon**

$$(8 - 2) \times 180 = \mathbf{1080^\circ}$$

2.3

- (a) **radius**
- (b) **chord** — a diameter is the special chord that passes through the centre

3.1

(a)

- the exterior angles of any polygon add to 360° , so $360 \div 24$

$$= \mathbf{15}$$

(b)

- interior = $180 - 24$

$$= \mathbf{156^\circ}$$

3.2

- (a) **trapezium**
- (b) **scalene**
- (c) **cylinder**

3.3

- corresponding sides are equal in length
- corresponding angles are equal, so the shapes are identical in size as well as shape
- note that similar shapes have equal angles but sides in a fixed ratio, which is the weaker condition