

Solutions

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

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

2.1

$$\begin{aligned} \bullet \quad \frac{1}{2} \times 12 \times 7 \\ = \mathbf{42 \text{ cm}^2} \end{aligned}$$

2.2

$$\begin{aligned} \bullet \quad \frac{1}{2}(8 + 14) \times 6 = \frac{1}{2} \times 22 \times 6 \\ = \mathbf{66 \text{ cm}^2} \end{aligned}$$

2.3

$$\begin{aligned} \bullet \quad C = 2\pi r = 2 \times \pi \times 9 \\ = 56.548 \dots = \mathbf{56.5 \text{ cm}} \end{aligned}$$

3.1

(a)

$$\begin{aligned} \bullet \quad \text{width} = 84 \div 12 \\ = \mathbf{7 \text{ cm}} \end{aligned}$$

(b)

$$\begin{aligned} \bullet \quad \text{perimeter} = 2(12 + 7) \\ = \mathbf{38 \text{ cm}} \end{aligned}$$

3.2

$$\begin{aligned} \bullet \quad 154 = \pi r^2, \text{ so } r^2 = 154 \div \pi = 49.02 \dots \\ r = \sqrt{49.02 \dots} = \mathbf{7.00 \text{ cm}} \end{aligned}$$

- keep the full value in the calculator and round only at the end

3.3

$$\begin{aligned} \bullet \quad 97.5 = 15 \times h \\ h = \mathbf{6.5 \text{ cm}} \end{aligned}$$