

Solutions

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

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

2.1

- $7 \times 4 = \mathbf{28}$ km

2.2

- reverse bearing: add 180°
- $060 + 180 = \mathbf{240^\circ}$

2.3

- due west is $\mathbf{270^\circ}$

3.1

$$\frac{250 \text{ m}}{20 \text{ m/cm}} = \mathbf{12.5 \text{ cm}}$$

3.2

- $145 + 180 = \mathbf{325^\circ}$

3.3

- draw the 6 cm base with a ruler
- from one end set compasses to 5 cm and from the other to 4 cm; the arcs cross at the third vertex; join it to both ends

3.4

(a)

- AB drawn accurately at 8 cm
- angle 50° at A and $AC = 6$ cm marked
- BC joined and all arcs left visible

(b)

- perpendicular bisector: equal arcs from B and C , crossings joined
- angle bisector at B : an arc from B cutting both arms, then equal arcs from those points, joined to B
- P labelled at the intersection

(c)

- P is **equidistant from B and C** (perpendicular bisector of BC)
- P is **equidistant from BA and BC** (angle bisector at B)

(d)

- nearer to B than to C : the side of the perpendicular bisector containing B
- less than 5 cm from A : inside a circle of radius 5 cm centred on A
- shade the **overlap** of those two, inside the triangle