

Solutions

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

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

2.1

- $\text{opp} = 12 \times \sin 40^\circ$
- $12 \times 0.643 = \mathbf{7.71 \text{ cm}}$

2.2

- $\sin \theta = \frac{5}{10} = 0.5$
- $\theta = \mathbf{30^\circ}$

2.3

- $\text{opp} = 8 \times \tan 35^\circ$
- $8 \times 0.700 = \mathbf{5.60 \text{ cm}}$

3.1

- $\tan \theta = \frac{7}{10} = 0.7$
- $\theta = \tan^{-1}(0.7) = \mathbf{35.0^\circ}$

3.2

- $\text{adj} = 15 \times \cos 52^\circ$
- $15 \times 0.616 = \mathbf{9.23 \text{ cm}}$

3.3

- $\tan \theta = \frac{1.2}{5} = 0.24$
- $\theta = \tan^{-1}(0.24) = \mathbf{13.5^\circ}$