Solutions

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

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

2.1

- p.m. after midday, so add 12 to the hour

$$\textbf{19 45}$$

2.2

- 18 40 + 2 h = 20 40, then +35 min crosses the hour

$$= \textbf{21 15}$$

2.3

- 09 52 to 12 00 is 2 h 8 min, then 18 minutes more

$$= \textbf{2} \text{ h } \textbf{26} \text{ min}$$

2.4

- $0.25 \times 60 = 15$ minutes

$$= \textbf{2} \text{ h } \textbf{15} \text{ min}$$

2.5

- 24 minutes $= \dfrac{24}{60} = 0.4$ hour, so **1.4** hours

3.1

(a)

- 08 47 to 09 23 is 13 minutes to the hour and 23 after

$$= \textbf{36} \text{ minutes}$$

(b)

- 08 47 to 10 09

$$= \textbf{1} \text{ h } \textbf{22} \text{ min}$$

- the 8-minute wait at B is part of the total, so do not subtract it

3.2

- convert the time: 48 min $= 48 \div 60 = 0.8$ h, so the time is 1.8 h
- speed = distance ÷ time $= 135 \div 1.8$

$$= \textbf{75} \text{ km/h}$$

3.3

- time $= \dfrac{\text{distance}}{\text{speed}} = \dfrac{84}{56} = 1.5$ hours
- 1.5 hours = 1 hour 30 minutes

$$14\ 35 + 1 \text{ h } 30 \text{ min} = \textbf{16 05}$$

3.4

- landing time in Shanghai: 22 50 + 13 h 15 min = 12 05 the next day
- London is 8 hours behind: 12 05 − 8 hours

$$= \textbf{04 05} \text{ (the next day)}$$