

**M1.****Alternative method 1**

$$24 \times 48 \times 9.2 \text{ or } 10598.4(0)$$

M1

10598.4(0) and Yes

A1

**Alternative method 2**

$$10\,000 \div 24 \div 48 \text{ or } 8.6(8\dots) \text{ or } 8.7$$

M1

8.6(8...) or 8.7 and Yes

A1

**Alternative method 3**

$$10\,000 \div 24 \div 9.2 \text{ or } 45.(...) \text{ or } 46$$

M1

45.(...) or 46 and Yes

A1

**Alternative method 4**

$$10\,000 \div 48 \div 9.2 \text{ or } 22.(...) \text{ or } 23$$

M1

22.(...) or 23 and Yes

A1

**M2.**

$$0.1 \times 32 \text{ or } 3.2(0)$$

oe

**M1**

$$32 - \text{their } 3.2(0) \text{ or } 28.8(0)$$

*0.9 x 32 or 28.8(0) scores M2*

**M1dep**

$$2000 \div \text{their } 28.8(0) \text{ or } 69.(44\dots)$$

*Condone their 28.8 being 32*

**M1**

$$2000 \div 28.5(0) \text{ or } 70.(17\dots)$$

or

$$28.5 \times 70 = 1995$$

**M1**

69 and 70 seen and 70 chosen

**A1**

**[5]**

**M3.**

$$\frac{30}{100} \times 68 \text{ or } 20.4 \text{ or } 20$$

$$\text{or } \frac{70}{100} \times 68 \text{ or } 47.6 \text{ or } 48$$

oe

**M1**

$$0.75 \times 55 \text{ or } 41(.25) \text{ or } 41.3$$

oe

**M1**

$$15\,000 \div 47.6 \text{ or } 315.(...)$$

$$\text{or } 15\,000 \div 48$$

$$\text{or } [312, 316]$$

oe

*Dependent on 1st M1*

**M1dep**

$$12\,000 \div 41(.25)$$

$$\text{or } 12\,000 \div 41.3$$

or [290, 293]

oe

Dependent on 2nd M1

M1dep

[312, 316] and [290, 293] and A

Q1

**Additional Guidance**

$68 - 20.4 = 45.6$ ,  $15\ 000 \div 45.6 = 329$  and 291 seen

M1M1M1M1

Q0

[5]

**M4.**

**Alternative method 1**

$2 \times \pi \times 40$

or [251.2, 251.5]

or 251

or 250

M1

$(2 \times \pi \times 40 + 200)$

or [251.2, 251.5] + 200

or 251 + 200

or 250 + 200

M1dep

Distance  $\div$  18 or Distance  $\div$  30

M1

25.(...) and yes

or 15.(...) and yes

*Strand (iii) decision to match their answers  
ft provided M1M0M1*

Q1ft

**Alternative method 2**

$2 \times \pi \times 40$

or [251.2, 251.5]

or 251

or 250

**M1**

$(2 \times \pi \times 40 + 200)$

or [251.2, 251.5] + 200

or 251 + 200

or 250 + 200

**M1dep**

$18 \times 30$  or 540

**M1**

[450, 451.5] and 540 and yes

*Strand (iii) decision to match their answers  
ft provided M1MOM1*

**Q1ft**

**Additional Guidance**

$100 + 100 + 40 + 40 = 280, 280 \div 18 = 15.(\dots)$

**M0M0M1Q0**

$\pi \times 80 = 251.3, 251.3 \div 2 = 125.65$

**M0**

Distance means any number using addition of lengths given in the question

e.g. (100 + 40), 250, 200, 100

**[4]**

**M5.(a)** 46

**B1**

(b) 1.5 seen or implied

or 14 seen

oe

**B1**

$28 \times 1.5$

or  $28 + 14$

*Attempt to multiply speed by time*

*eg  $28 \times 1.3$  or  $36.4$*

*or  $90 \times 28$  or  $2520$*

*or  $130 \times 28$  or  $3640$*

**M1**

42

**A1**

**[4]**

**M6.(a)** their  $9 \times 0.6$

or their  $9 \div 0.5$

or  $0.6 \div 0.5 (= 1.2)$

oe

**M1**

$$\frac{\text{their } 9 \times 0.6}{0.5}$$

oe

**M1dep**

10.8

**A1**

(b)  $13.6 \times 3600$

or  $13.6 \div 1000$

or  $3600 \div 1000$

oe  
 $50 \times 1000$   
 or  $50 \div 3600$   
 or  $1000 \div 3600$

M1

$$\frac{13.6 \times 3600}{1000}$$

$$\frac{50 \times 1000}{3600}$$

M1

48(...) or 49  
 13.8(...) or 13.9

A1

**Alternative Method**

$13.6 \times 3600$   
 $13.6 \div 1000$

M1

$50 \times 1000$   
 $50 \div 3600$

M1

48 960 or 49 000 and 50 000  
 $0.0136$  and  $0.0138(\dots)$  or  $0.0139$

A1

[6]

**M7.**  $169 \div 65$

$65 \times 2.5$  or  $65 \times \text{their } 2.5$  or  $169 \div 2.5$

M1

2.6 or 2 hours 36 (minutes)

*162.5 or 6.5 miles to go or 67.6 (mph)*

A1

2h 30 or 2.5 h or 150 (minutes)

or

9.06 or 9.1 (not 9.10)

or

6.24 or 6.4

*2.5h*

B1

No

A1

[4]