

**M1.**

$$\frac{15}{35}$$

**B1**

[1]

**M2.**

$$\frac{11}{4} \text{ or } \frac{16}{9}$$

*oe fraction*

**M1**

$$\frac{\text{their } 11 \times \text{their } 16}{4 \times 9} \text{ or } \frac{176}{36}$$

*oe fraction*

$$\frac{11 \times 8}{2 \times 9} \text{ or } \frac{88}{18} \text{ or } \frac{11 \times 4}{9} \text{ or } \frac{44}{9}$$

**M1dep**

$$4 \frac{8}{9}$$

*oe mixed number*

$$\text{SC2 } 4.\dot{8}$$

**A1**

**Additional Guidance**

$$4 \frac{16}{18} \text{ or } 4 \frac{32}{36}$$

**M1M1A1**

Working in decimals is SC2 or 0

[3]

**M3.(a)** 11

**B1**

(b) (purple classic  $\Rightarrow$ ) 10

*May be implied by a numerator of 10*

$\frac{10}{80}$  *oe implies M1*

**M1**

$\frac{1}{8}$

*SC1 fraction with denominator 80 fully simplified*

**A1**

(c) 14

**B1**

(d) 17

**B1**

**[5]**

**M4.**  $25 \times 4$  or 100

or

$25 \times 12$  or 300

*oe*

**M1**

their  $100 \times 12$

or

their  $300 \times 4$

or

1200

*oe*

**M1**

$2600 \div 2$  or 1300

*oe*

M1

1200 and 1300

A1

No and 1200 and 1300

*Strand (iii)*

*at least M2 scored and correct decision for their values*

Q1ft

**Alternative method 1**

$2600 \div 2$  or 1300

or

$2600 \div 4$  or 650

*oe*

M1

their  $1300 \div 4$

or

their  $650 \div 2$

or

325

*oe*

M1

$25 \times 12$  or 300

*oe*

M1

300 and 325

A1

No and 300 and 325

*Strand (iii)*

*at least M2 scored and correct decision for their values*

**Q1ft**

**Alternative method 2**

$2600 \div 2$  or 1300

or

$2600 \div 4$  or 650

*oe*

**M1**

their  $1300 \div 4$

or

their  $650 \div 2$  or 325

*oe*

**M1**

their  $325 \div 12$

*oe*

**M1**

27.(...)

**A1**

No and 27.(...)

*Strand (iii)*

*at least M2 scored and correct decision for their 27.(...)*

**Q1ft**

**Alternative method 3**

$2 \times 25$  or 50

or

$$4 \times 25 \text{ or } 100$$

oe

M1

their  $50 \times 4$

or

their  $100 \times 2$

or

$$200$$

oe

M1

their  $200 \times 12$  or  $8 \times 25 \times 12$

oe

M1

$$2400$$

A1

No and 2400

*Strand (iii)*

*at least M2 scored and correct decision for their 2400*

Q1ft

[5]

M5.  $\frac{1}{2} \times \frac{1}{3}$

oe

M1

$$\frac{1}{6}$$

oe

A1

[2]

**M6.(a)**  $a - 6b$  or  $-6b + a$   
*B1 (1)a or -6b*

**B2**

(b)  $m(m - 2)$   
 or  $m \times (m - 2)$   
 or  $(m - 2)m$   
 or  $(m - 2) \times m$

**B1**

(c)  $5x^2 - 15x$   
 or  $-15x + 5x^2$   
*B1  $5x^2 - 15x$*

**B2**

**[5]**

**M7.**  $\frac{20}{100} \times 320$

or  $320 \div 5$

or  $32 (\times 2)$  seen

*oe*  
*or 10% is 32*

**M1**

64

**A1**

65

B1

$\frac{1}{2}$  of 130 miles

*Strand (iii) Correct conclusion from their answers  
ft their 64 and 65  
Allow ft only if M1 awarded  
oe*

Q1ft [4]

**M8.(a)**  $26 \div 4$  or 6.5

or  $26 \times 20 \times \frac{1}{4}$  or 130

M1

26 – their 6.5

or  $26 \div 4 \times 3$

or  $(520 - 130) \div 20$  or  $390 \div 20$

or  $(520 - \text{their } 130) \div 20$

or their  $390 \div 20$

oe

M1dep

19.5

A1

(b) Any trial with correct factors giving 168 except  $1 \times 168$

or any correctly evaluated product

such that  $10 \leq \text{rows} \leq 13$  and

$10 \leq \text{seats} \leq 16$

$2 (\times) 84$  or  $168 \div 2 = 84$

$3 (\times) 56$  or  $168 \div 3 = 56$   $4 (\times)$   
 $42$  or  $168 \div 4 = 42$   $6 (\times) 28$   
 or  $168 \div 6 = 28$   $7 (\times) 24$  or  
 $168 \div 7 = 24$   $8 (\times) 21$  or  $168$   
 $\div 8 = 21$   $12 (\times) 14$  or  $168 \div$   
 $12 = 14$  oe

M1

A different trial with correct factors giving 168 except  $1 \times 168$   
 or a different correctly evaluated  
 product such that  $10 \leq \text{rows} \leq 13$  and  
 $10 \leq \text{seats} \leq 16$

M1dep

12 rows

*SC2 for 12 seats and 14 rows*

14 seats

*SC2 for 12 and 14 as final working*

A1

[6]

**M9.210** – 90 or 120

M1

their  $120 \div 4$

oe

M1dep

30(.00)

A1

[3]



**M10.**

(a)  $1400 \times 0.11$   
*oe*

**M1**

154

**A1**

(b)  $\frac{4}{5} \times 295$   
 or  $295 \div 5$  or 59  
*oe*

**M1**

236

**A1**

**[4]**

**M11.**

**Alternative method 1**  
 20 (%)

**B1**

100 – their 20 – 25  
 or 100 – 45 or 55

**M1**

$\frac{\text{their } 55}{100}$

**M1dep**

$\frac{11}{20}$

*ft their 20*

**A1ft**

**Alternative method 2**

$\frac{1}{4}$

**B1**

$$\frac{4}{20} + \frac{5}{20} \text{ or } \frac{9}{20}$$

*oe with common denominator  
Correct adding of fractions*

**M1**

$$1 - \text{their } \frac{9}{20}$$

**M1dep**

$$\frac{11}{20}$$

*ft their  $\frac{1}{4}$*

**A1ft**

**Alternative method 3**

0.2 and 0.25

**B1**

1 - their 0.2 - their 0.25 or 0.55

**M1**

$$\frac{\text{their } 55}{100}$$

**M1dep**

$$\frac{11}{20}$$

*ft their 0.2 and 0.25*

**A1ft**

**[4]**

**M12.**

(a)  $15.6 \div 4$  or  $156 \div 40$

$$\text{or } \frac{156}{100} \times \frac{100}{40}$$

*Correctly multiplying both numbers by the same number so that 0.4 becomes an integer*

**M1**

3.9

*oe*

SC1 digits 39

A1

(b) Any decimal greater than  $0.\dot{6}\dot{3}$  and less than  $0.\dot{7}$

B1 Any fraction or percentage between  $\frac{7}{11}$  and  $\frac{7}{9}$  (eg  $\frac{7}{10}$  or 70%) or

Correctly evaluates  $\frac{7}{11}$  to 0.63... or  $\frac{7}{9}$  to 0.77...

B2

(c) Any correct fraction

eg  $\frac{83}{200}, \frac{415}{1000}, \frac{41}{99}, \frac{41}{98}, \frac{42}{101}, \frac{42}{102}$

B1  $\frac{41.5}{100}$

or

any 'correct' fraction with non-integer numerator and/or denominator

or

any decimal between 41% and 42%

B2

[6]