M1.

$\frac{15}{35}$

B1

[1]

M2.

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

oe fraction

M1

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

oe fraction

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

M1dep

$4\frac{8}{9}$

oe mixed number

SC2 $4.\dot{8}$

A1

Additional Guidance

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

M1M1A1

Working in decimals is SC2 or 0

[3]

M3.(a) 11

B1

(b) (purple classic =) 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 × 4 or 100

or

25 × 12 or 300

oe

M1

their 100 × 12

or

their 300 × 4

or

1200

oe

M1

2600 ÷ 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 ÷ 2 or 1300

or

2600 ÷ 4 or 650

oe

M1

their 1300 ÷ 4

or

their 650 ÷ 2

or

325

oe

M1

25 × 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 ÷ 2 or 1300

or

2600 ÷ 4 or 650

oe

M1

their 1300 ÷ 4

or

their 650 ÷ 2 or 325

oe

M1

their 325 ÷ 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 × 25 or 50

or

4 × 25 or 100

oe

M1

their 50 × 4

or

their 100 × 2

or

200

oe

M1

their 200 × 12 or 8 × 25 × 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 $5x^2$ or $-15x$

B2

[5]

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

or $320 \div 5$

or 32 (× 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 ÷ 4 or 6.5

or 26 × 20 × $\frac{1}{4}$ or 130

M1

26 − their 6.5

or 26 ÷ 4 × 3

or (520 − 130) ÷ 20 or 390 ÷ 20

or (520 − their 130) ÷ 20

or their 390 ÷ 20

oe

M1dep

19.5

A1

(b) Any trial with correct factors giving 168 except 1 × 168

or any correctly evaluated product

such that 10 ≤ rows ≤ 13 and

10 ≤ seats ≤ 16

2 (×) 84 or 168 ÷ 2 = 84

3 (×) 56 or 168 ÷ 3 = 56
4 (×) 42 or 168 ÷ 4 = 42
6 (×) 28 or 168 ÷ 6 = 28
7 (×) 24 or 168 ÷ 7 = 24
8 (×) 21 or 168 ÷ 8 = 21
12 (×) 14 or 168 ÷ 12 = 14
oe

M1

A different trial with correct factors giving 168 except 1 × 168

or a different correctly evaluated

product such that 10 ≤ rows ≤ 13 and

10 ≤ seats ≤ 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 ÷ 4

oe

M1dep

30(.00)

A1

[3]

M10.

(a) 1400 × 0.11

oe

M1

154

A1

(b) $\frac{4}{5}$ × 295

or 295 ÷ 5 or 59

oe

M1

236

A1

[4]

M11.

Alternative method 1

20 (%)

B1

100 − their 20 − 25
or 100 − 45 or 55

M1

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

M1dep

$\frac{11}{20}$

ft their 20

A1ft

Alternative method 2

$\frac{1}{4}$

B1

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

oe with common denominator
Correct adding of fractions

M1

1 − 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 ÷ 4 or 156 ÷ 40
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]