

M1.

Alternative method 1

5×24.2 or 121 (miles)

M1

their $121 \div 32.3$
or
[3.74, 3.75] (gallons)

M1

their [3.74, 3.75] $\times 4.5$
or
[16.8, 16.9] (litres)

M1

their [16.8, 16.9] $\times 1.27$

M1

[21.33, 21.47] and bus

Accept 21 and bus if working shown

A1

Alternative method 2

5×24.2 or 121 (miles)

M1

their $121 \div 32.3$
or
[3.74, 3.75] (gallons)

M1

1.27×4.5
or 5.71(5) or 5.72

M1

their [3.74, 3.75] × their 5.71(5)

M1

[21.33, 21.47] and bus

Accept 21 and bus if working shown

A1

Alternative method 3

19.50 ÷ 5 or 3.9(0)

M1

24.2 ÷ 32.3

or

[0.74, 0.75] (gallons)

M1

their [0.74, 0.75] × 4.5

or

[3.3, 3.4] (litres)

M1

their [3.3, 3.4] × 1.27

M1

[4.19, 4.32] and 3.9(0) and bus

Accept 4 and 3.9(0) and bus if working shown

A1

Alternative method 4

19.50 ÷ 5 or 3.9(0)

M1

24.2 ÷ 32.3
or
[0.74, 0.75] (gallons)

M1

1.27 × 4.5
or 5.71(5) or 5.72
£ per gallon

M1

their [0.74, 0.75] × their 5.71(5)

M1

[4.19, 4.32] and 3.9(0) and bus
Accept 4 and 3.9(0) and bus if working shown

A1

[5]

M2.

1950 or 2049 or 1500 or 2499

M1

1500 and 2049
or
1950 and 2499

Must be seen as a linked pair

M1

549

SC2 550

A1

[3]

M3.

32

B1 4 or 16 or 0.5

B2
[2]

M4.(a) 24 (million) – 15 (million)

Subtraction with one value correct

M1

9

Condone 9 000 000

A1

(b) 30

Condone 30 000 000

B1

(c) 28(%) **and** 20 (million) chosen

oe

Implied by correct answer

B1

0.28 × their 20 **or** 20 × $\frac{\text{their 28}}{100}$
oe their 20 can only be 15, 20, 24 or 26 their 28 can only be 12, 15, 28 or 45

M1

5.6

*Digits 56 on answer space implies B1M1
 Accept rounding to 6 after a correct answer is seen.
 Condone 5600000*

SC2 4.2 or 6.72 or 7.28

A1
[6]

M5.

5

*B1 for 25 or 5² seen
or any value in range (5, 5.92]*

B2
[2]

M6.

(a) 2.17158...

B1

(b) 2.2

ft their answer to (a)

B1ft
[2]

M7.

(a) 80 – 74 or 6 seen

or $\frac{74}{80}(\times 100)$ or 0.925 or 92.5

M1

their 6

$\frac{80}{80}(\times 100)$ or 0.075

or 100 – their 92.5

or 1 – 0.925

0.075 implies both method marks

M1dep

7.5

SC1 for 8.1(...)

A1

(b) 11.5 kg

Circled or indicated

B1
[4]

M8.(a) 5000 or five thousand
or (5) thousand or five thousands
or (5) thousands

B1

(b) 5300

B1

(c) 8543

B1

(d) 3485

B1
[4]

M9.202 and 92

or 400 and 81

or 319

oe

M1

$$\sqrt{20^2 - 9^2}$$

or $\sqrt{400 - 81}$

or $\sqrt{319}$

M1dep

17.86...

A1

17.9

ft their 2 dp or more

B1ft

Additional Guidance

17.9 without working seen

M1 M1 A1 B1

17.86... without working seen

M1 M1 A1 B0

[4]

M10.(a) 25.11

B1

(b) 23585

B1

(c) 15.0665(...)

B1

Additional Guidance

Ignore any digits after the 4th decimal place

(d) 15.1

ft correct rounding to 1 dp

B1ft

Additional Guidance

7c must have at least 2 decimal places

Answer to part d is follow through or correct answer (may be a restart)

[4]

M11.(a) (Car) C or 12 590

B1

(b) 13 400 or 17 900 or 12 600
20 or 40 or 10

M1

13 400 and 17 900 and 12 600
20 and 40 and 10

M1dep

17 860 or 17 900
or Car B
40

A1

[4]

M12.(a) $17\,000\,000 \times 1.8 (= 30\,600\,000)$
30.6 million

M1

3.06×10^7 or 3.1×10^7
Strand (i) Correct notation
Accept 3×10^7 with method seen
Condone 3.06 (or 3.1) $\times 10^1$ million
SC1 any value changed correctly to standard form
SC1 $9.4(\dots) \times 10^6$

Q1

- (b) $(5.6 \times 10^{11}) \div 17\,000\,000$ *oe*
 $560\,000\,000\,000 \div 17\,000\,000$
 or $(5.6 \times 10^{11}) \div (1.7 \times 10^7)$

M1

32941.(...)
May be implied by 30 000, 33 000, 32900 or 32940

A1

30 000 or 33 000
oe
ft any value > 2sf rounded to 1 or 2 sf
SC1 $3.(0) \times 10^{-5}$ or $0.00003(0)$

B1 ft

[5]

M13.(a) 3.6

B1

- (b) 0.325 0.5 0.62

B1

- (c) $\frac{4}{5}$ and 80%

B1 for one correct (and one incorrect) or for two correct and one incorrect
Any indication

B2

[4]

M14.(a) $21 + 20 + 29 + 22 + 24$ or 116

Allow one error or omission

M1

their total $\div 5$

$$\text{Condone } 21 + 20 + 29 + 22 + 24 \div 5$$

M1

23.2

May be implied

A1

23

ft any decimal seen that is correctly rounded

B1ft

(b) 9

B1

(c) Agrees **and** Chris' mean is 23

Agrees **and** Chris' total is 116 and Tommy's total is 150

Strand (iii)

or

*eg Tommy scored 150 runs which is more than Chris
eg True as all Chris' scores are under 30 ft their mean or
total from (a)*

or

Correct **comparative** comment on means or total runs

Q1ft

(d) Agrees and Chris' range is 9

Strand (iii)

or

eg Chris had a lower range so he was more consistent

Correct **comparative** comment about the range

ft their range from (b)

Q1ft
[7]