M1.

(a) All 4 points correctly plotted

B1 for 2 or 3 ± $\frac{1}{2}$ square. Ignore extras

B2

(b) Positive

B1

(c) Line of best fit drawn or reading indicated on graph

M1

'8.80'

ft their straight, increasing lobf
SC1 for 7.80 to 9 if no line or mark on graph.

A1ft

Alternative

$\frac{8.00 + 9.80}{2}$

oe Allow 7.20 or 7.60 instead of 8.00

M1

8.90

8.50 or 8.70

A1

(d) Point (8,2) circled

M1

Not close to lobf / other data Or other data all increase

oe Reason relating to trend

A1

[7]

M2.(a) Negative

Ignore any other description
Accept eg strong negative, weak negative

B1

(b) [118,122]

B1

[2]

M3.

(a) All 3 points correctly plotted

$\pm \frac{1}{2}$ *sq* *Ignore extras*

B1

(b) Negative correlation
or
As the time spent learning words increased, the number of incorrect words decreased

oe

B1

(c) Line of best fit drawn

Between (3,5) to (3,6) to between (7,1) and (7, 3)
And at least from 3 to 7 horizontally

M1

4

ft a correct lobf
Accept integer answers only
SC1 for 3 or 4 if no lobf or incorrect lobf

A1

(d) No line of best fit may change

or No Line of best fit cannot continue in the same way (becomes negative)

Not possible to be sure mistake is not made in test / pressure of test / human error / different individuals

Cannot say as 12 is beyond the range of the data

oe

B1

[5]

M4.(a) 5 points plotted correctly

Allow ± $\frac{1}{2}$ square

B1 for 3 or 4 correct plots

B2

(b) One straight line through both gates (90, 8.5-9.5) and (130, 13-14)

B1

(c) 11.3

ft their straight line of best fit
Allow [11.0, 11.6] if B0 awarded in (b)

B1 ft

[4]

M5. (a) All 6 points correct (± $\frac{1}{2}$ sq)

4 or 5 points correct B1 Ignore extras

B2

(b) Draws a suitable line of best fit

M1

Answer appropriate to their line of best fit

ft their plots and appropriate line
Must be integer answer
SC1 8 or 9 or 10

A1 ft

(c) Cannot tell

B1

[5]

M6. (a) A

B1

(b) B and says there is no correlation

oe

B1

[2]

M7.(a) Points plotted correctly

B1 if 4 or 5 plotted correctly ± $\frac{1}{2}$ *small square*

B2

(b) Mark or LOBF on graph within range (25, 40) to (25, 44)

M1

40 − 44

ft their line or their mark
SC1 if no marks or no LOBF shown and answer in range [40, 44]

A1ft

Alternative method

Any attempt at interpolation or 'build up'

*Shows sales **and** temperature for two points either side of 25, eg one of (20, 36) or (21, 37) or (22, 39) and (29, 47) or a calculation such as 39 + 3 × (47 − 39) ÷ 7*

M1

40 − 44

SC1 if the 'interpolation' is not convincing but answer in range [40, 44]

A1ft

(c) No as the sales at low temperatures are constant
No as at 9° sales are (about) same

At low temperatures sales do not increase

B1

[5]

M8. (a) 34

B1

(b) (5.10+) 2 hours 1 minute

Accept sight of 2 hours 1 minute or 2.01

M1

7.11

A1

(c) 4 correct plots

B1 ft 2 or 3 correct plots ft their part a

B2 ft

(d) Draws a suitable line of best fit

M1

(5.10+) their read off value at 5.10

M1 dep

Correct answer for their 5.10 + read off value

Must have M2

SC1 M0 but answer [5.40, 5.45]

A1 ft

[8]

M9. (a) $\frac{2}{13}$

B1

(b) 5.4 minutes

oe *60 ÷ 5 (= 12)*

M1

5 (minutes) 24 (seconds)

SC1 any other non-integer time correctly converted to minutes and seconds

SC1 5 min 4 secs or 5 min 40 secs

or in range 5 min 12 secs

to 5 min 36 secs

A1

(c) There is some (weak or moderate) support for the hypothesis

oe *Do not allow strong support* *oe*

B1

(d) At least 5 points with all in a strong positive correlation

B1

[5]