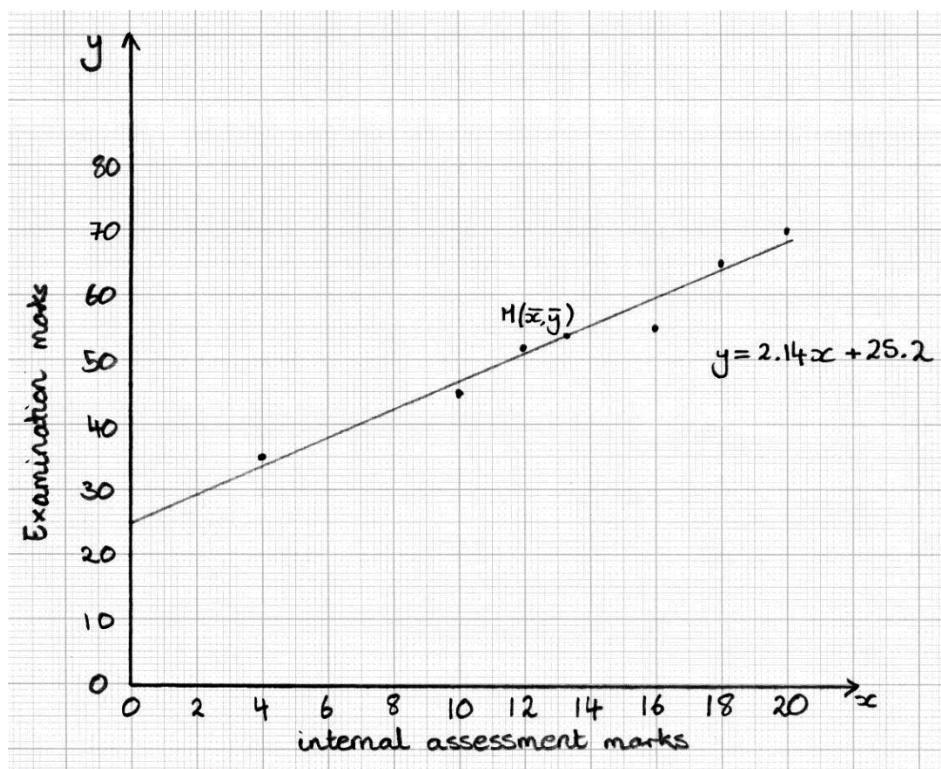


4.1 (a)



(A3)

Notes: Award (A1) for correct labels and scales.

Accept x and y labelled on the axes as sufficient for labelling.

Award (A2) for all 6 points correct, (A1) for 4 or 5 points correct, otherwise (A0).

Award, at most, (A0)(A2) if axes are the wrong way round.

Award, at most, (A0)(A2) if the points are joined by lines.

If graph paper is not used, award at most (A1)(A0).

[3 marks]

(b) (i) 0.981 (0.981193...)

(G2)

(ii) (very) strong
positive

(A1)(ft)
(A1)(ft)

Note: Follow through from part (b)(i).

[4 marks]

(c) (i) 13.3 (13.3333...)

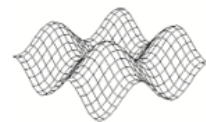
(A1)

(ii) 53.7 (53.6666...)

(A1)

[2 marks]

continued...



Question 4.1 continued

- (d) point M labelled, in correct position (A1)(A1)(ft)

Note: Award (A1)(ft) for point plotted in correct position, (A1) for point labelled M or (\bar{x}, \bar{y}) or (13.3, 53.7). Follow through from part (c).

Allow tolerance of ± 0.3 on both values for (\bar{x}, \bar{y}) for (A1)(ft).

An incorrectly plotted point (outside of tolerance) earns (A0)(A0).
 If graph paper not used, award at most (A1)(A0).

[2 marks]

- (e) $y = 2.14x + 25.2$ ($y = 2.13846...x + 25.1538...$) (A1)(A1)(G2)

Note: Award (A1) for “2.14x” and (A1) for “25.2”.
 Award at most (A1)(A0) if not written as an equation.

[2 marks]

- (f) $y = 2.13846... \times (8) + 25.1538...$ (M1)
 $y = 42.3$ (42.2615...) (A1)(ft)(G2)

Notes: Accept either 42 or 43. (as marks are discrete values).
 Follow through from part (e). Do not award (M1) for finding an estimate by using the graph.
 If the candidate has an incorrect equation in part (e) and there is no attempt to substitute 8 into this equation then (M0)(A0).

[2 marks]

- (g) straight line goes through point (their \bar{x} , their \bar{y}) (A1)(ft)
 y-intercept of the straight line is (their) 25.2 (A1)(ft)

Notes: Accept 25.2 ± 1.5 for the y-intercept.
 Follow through from parts (d) and (e).
 The line does not need to be labelled.
 The line does not need to intercept the y-axis. However, the extension of their line should intersect the axis at the correct point.
 If graph paper is not used, award at most (A1)(A0).

[2 marks]

- (h) not reliable (A1)
 30 marks is outside the given range (R1)

OR

- maximum mark of the internal assessment is 20 in the sample (R1)

Note: Do not award (A1)(R0).

[2 marks]

Total [19 marks]