

QUESTION 2.2

(a) (i) $\frac{71+79+\dots}{12}$ (M1)
 $72.4 \left(72.4166\dots, \frac{869}{12} \right)$ (A1)(G2)

Note: Award (M1) for correct substitution into the mean formula.

(ii) $4.77 \quad (4.76896\dots)$ (G1)

(iii) $72.4 + 4.77 = 77.17$ (M1)

Note: Award (M1) for adding their mean to their standard deviation.

Two golfers (A1)(ft)(G2) [5 marks]

Note: Follow through from their answers to parts (i) and (ii).

(b) $0.990 \quad (0.99014\dots)$ (G2) [2 marks]

(c) $y = 1.01x + 0.816 \quad (y = 1.01404\dots x + 0.81618\dots)$ (G1)(G1)

Notes: Award (G1) for $1.01x$ and (G1) for 0.816 . If the answer is not an equation award a maximum of (G1)(G0).

OR

$y - 74.25 = 1.01(x - 72.4) \quad (y - 74.25 = 1.01404\dots(x - 72.4166\dots))$ (A1)(A1) [2 marks]

Notes: Award (A1) for 1.01 correctly substituted in the equation, and (A1)(ft) for correct substitution of $(72.4, 74.25)$ in the equation.
 Follow through from their part (a)(i).
 If the final answer is not an equation award a maximum of (A1)(A0).

(d) $y = 1.01404\dots \times 70 + 0.81618\dots$ (M1)

Note: Award (M1) for substitution of 70 into their regression line equation from part (c).

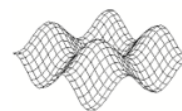
$y = 72 \quad (71.7989\dots)$ (A1)(ft)(G2) [2 marks]

Note: Follow through from their part (c).

continued...



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Question 2.2 continued

- (e) No, equation cannot be (reliably) used as 89 is outside the data range.

(A1)(R1)

OR

Yes, but the result is not valid/not reliable as 89 is outside the data range/as we extrapolate

(A1)(R1) [2 marks]

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

Total [13 marks]