4 (a) Complete the table of values for  $y = \frac{x}{2} + 6e^{-2x} + 1$  giving your answers to one decimal place.

X	0	1	1.5	2	3	4	5	6
у	7		2.0			3.0		4.0

(2)

(b) On the grid opposite, draw the graph of 
$$y = \frac{x}{2} + 6e^{-2x} + 1$$
 for  $0 \le x \le 6$ 

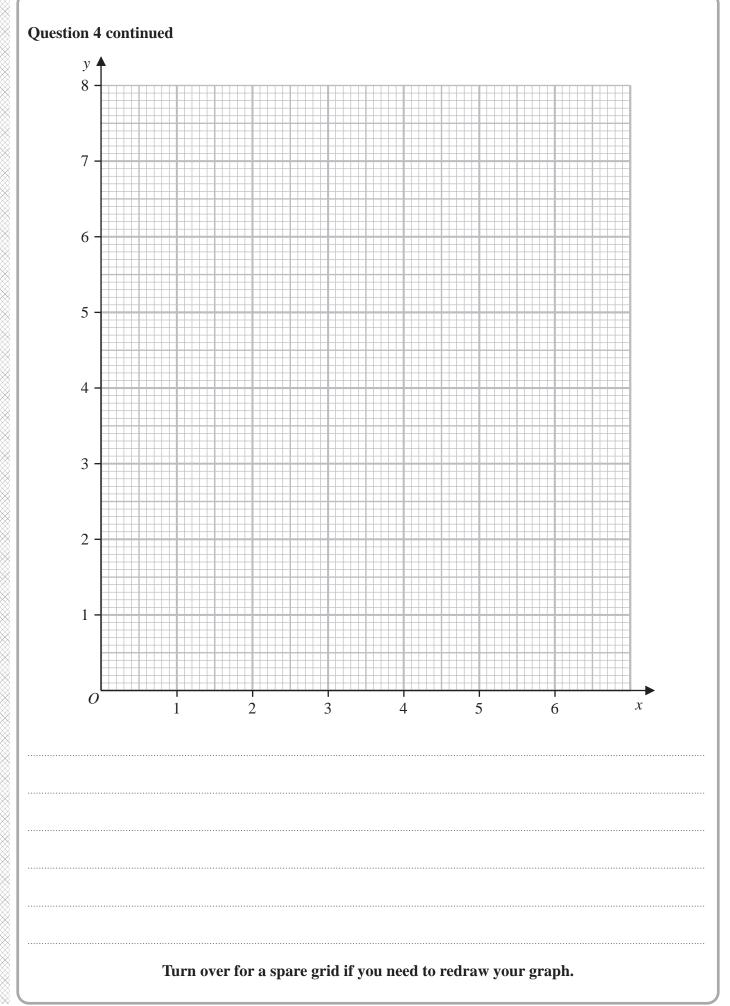
(2)

(c) By drawing a suitable straight line on your graph, obtain estimates, to one decimal place, of the roots of the equation

$$2x + \ln(24 - 5x) = \ln 36$$

(5)

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Question 4 continued

