7 (a) Complete the table of values for $y = 2^x - 4$, giving your answers to 2 decimal places.

x	0	0.5	1	1.5	2	2.5	2.75	3
y	-3		-2		0		2.73	4

(2)

(b) On the grid opposite, draw the graph of $y = 2^x - 4$ for $0 \leqslant x \leqslant 3$

(2)

(c) Use your graph to obtain an estimate, to one decimal place, of the value of $\log_2 7$
Show clearly how you used the graph.

(3)

(d) By drawing a straight line on your graph, obtain an estimate to one decimal place of the root of the equation $2^x + 3x = 7$ in the interval $0 \leqslant x \leqslant 3$
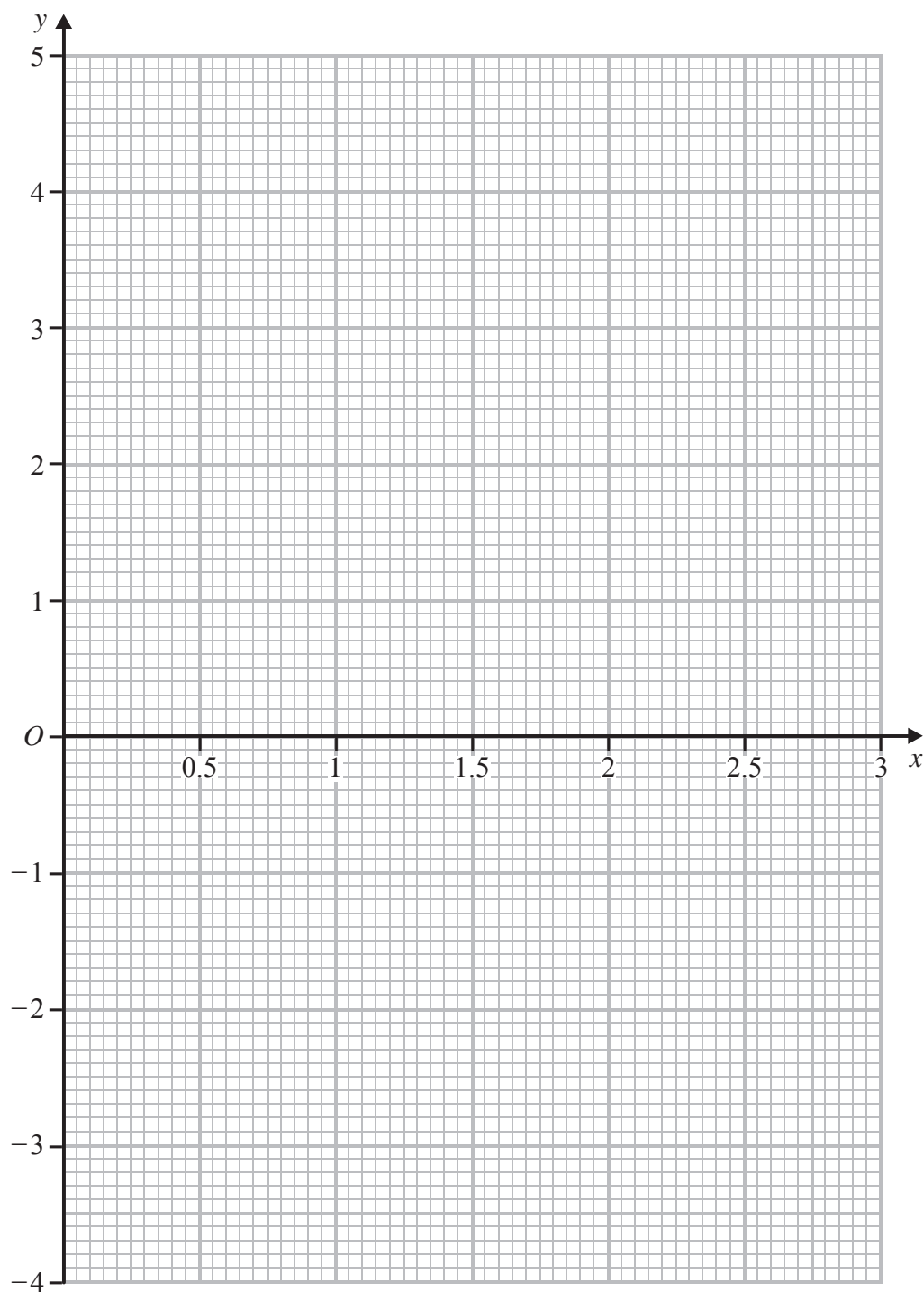
(4)

Question 7 continued

Turn over for a spare grid if you need to redraw your graph.

Question 7 continued

Question 7 continued

Only use this grid if you need to redraw your graph

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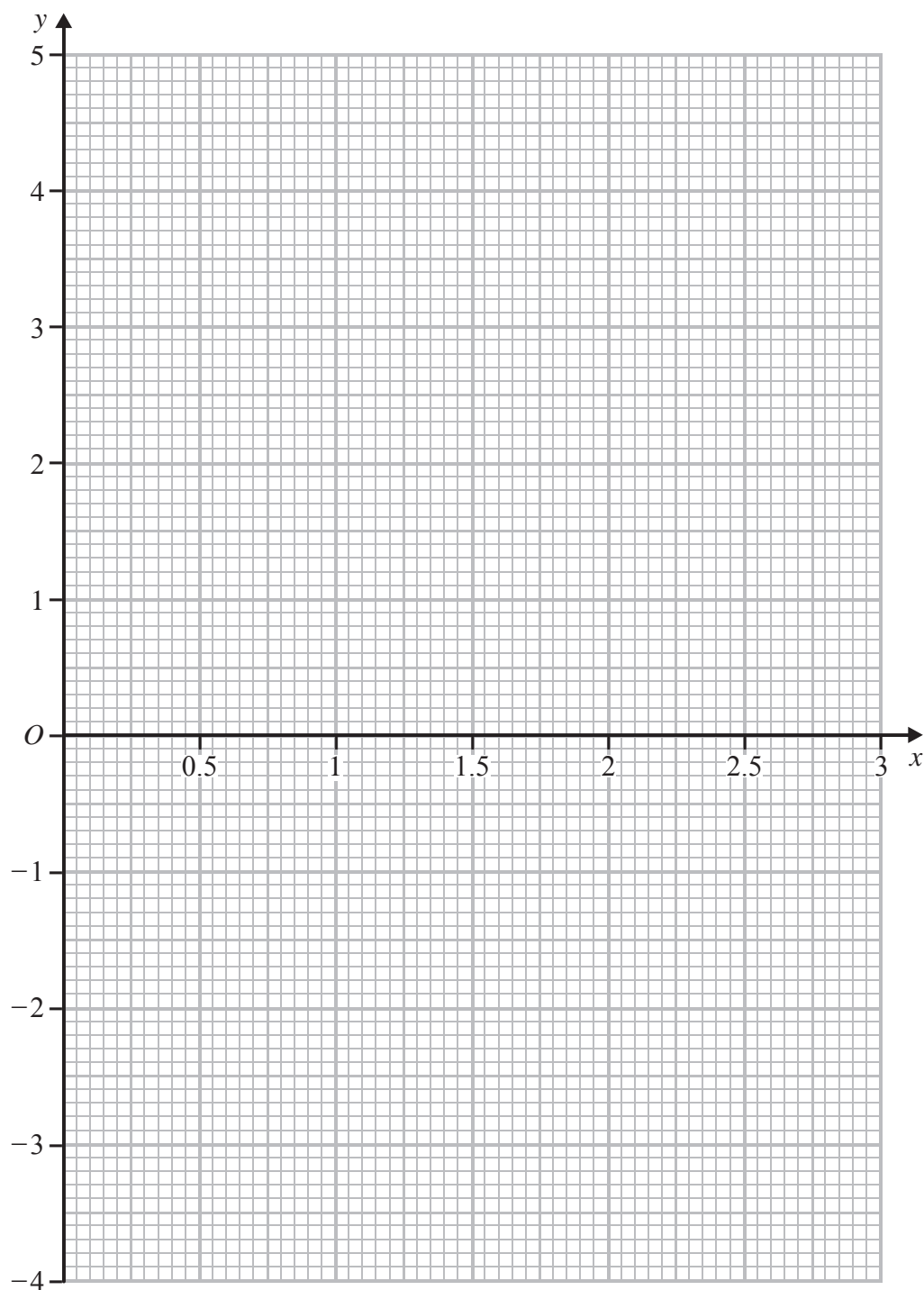
(Total for Question 7 is 11 marks)