7 (a) Complete the table of values for

$$y = 2^{\left(\frac{x}{2}+1\right)} + 1$$

giving your answers to 2 decimal places where appropriate.

(2)

x	0	1	2	3	4	5
y	3				9	12.31

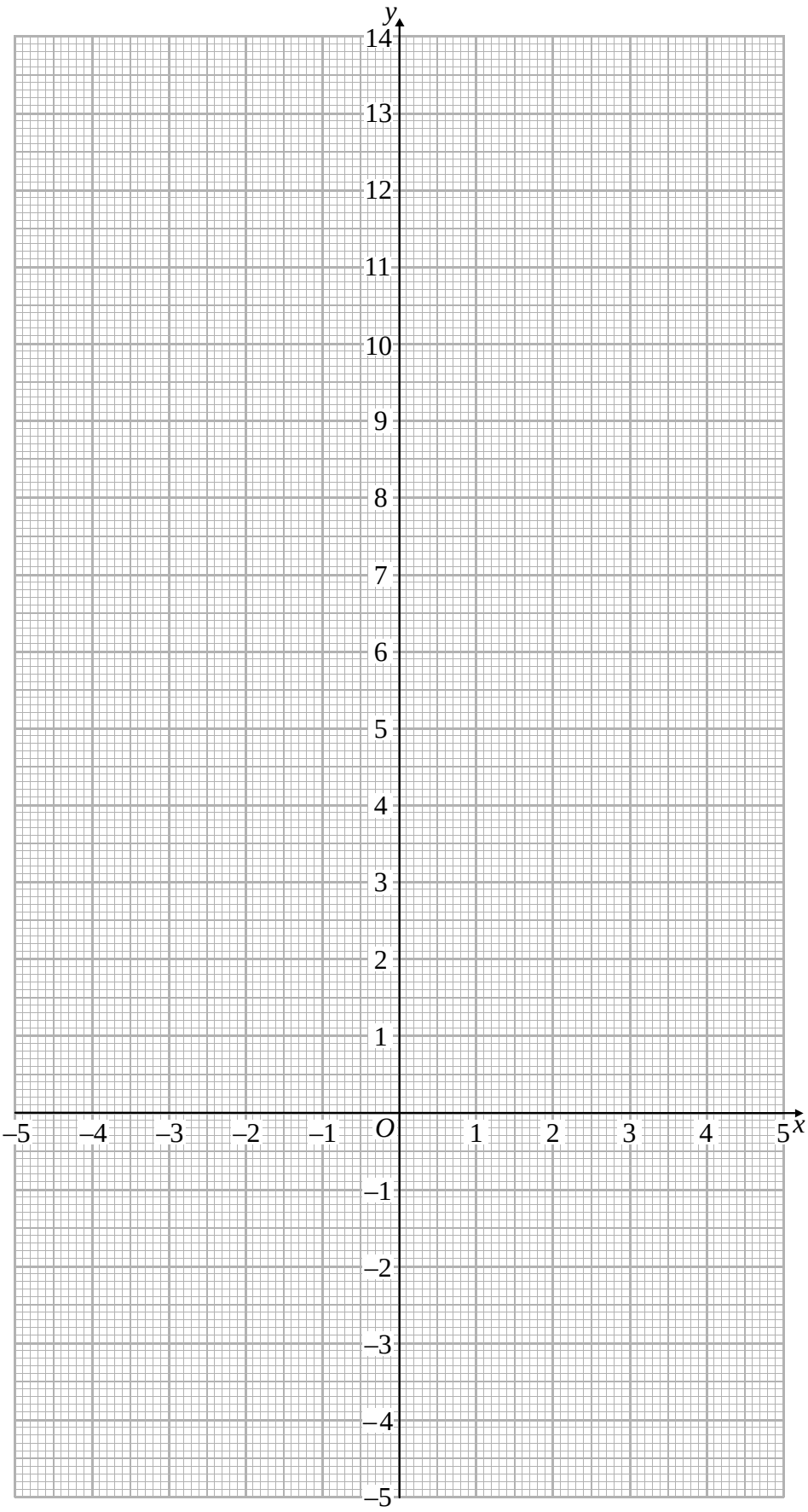
(b) On the grid opposite, draw the graph of $y = 2^{\left(\frac{x}{2}+1\right)} + 1$ for $0 \leqslant x \leqslant 5$

(2)

(c) By drawing a suitable straight line on the grid, obtain an estimate, to 1 decimal place, of the root of the equation $\log_2(4x - 6)^2 - x = 2$ in the interval $0 \leqslant x \leqslant 5$

(4)

Question 7 continued



(Total for Question 7 is 8 marks)