6 (a) Complete the table of values for

$$y = x - \frac{3}{x^2}$$

giving your answers to one decimal place where appropriate.

x	0.5	1	1.5	2	3	4	5	6
y	–11.5			1.3	2.7			5.9

(2)

(b) On the grid opposite, draw the graph of $y = x - \dfrac{3}{x^2}$ for $0.5 \leqslant x \leqslant 6$

(2)

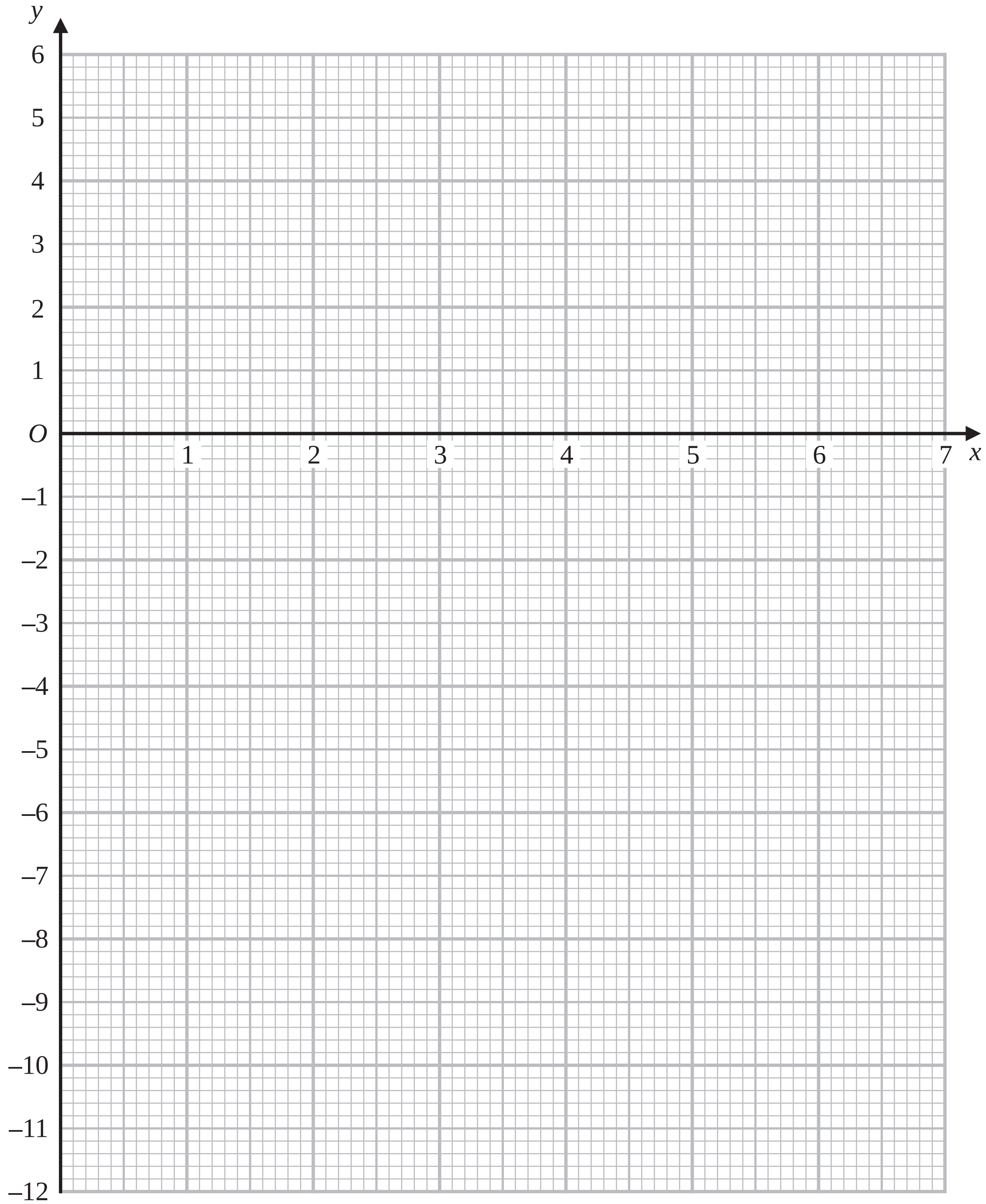
(c) By drawing a suitable straight line on the grid, obtain estimates, to one decimal place, of each of the two roots of the equation

$$2x^3 - 6x^2 + 3 = 0$$

in the interval $0.5 \leqslant x \leqslant 6$

(5)

Question 6 continued



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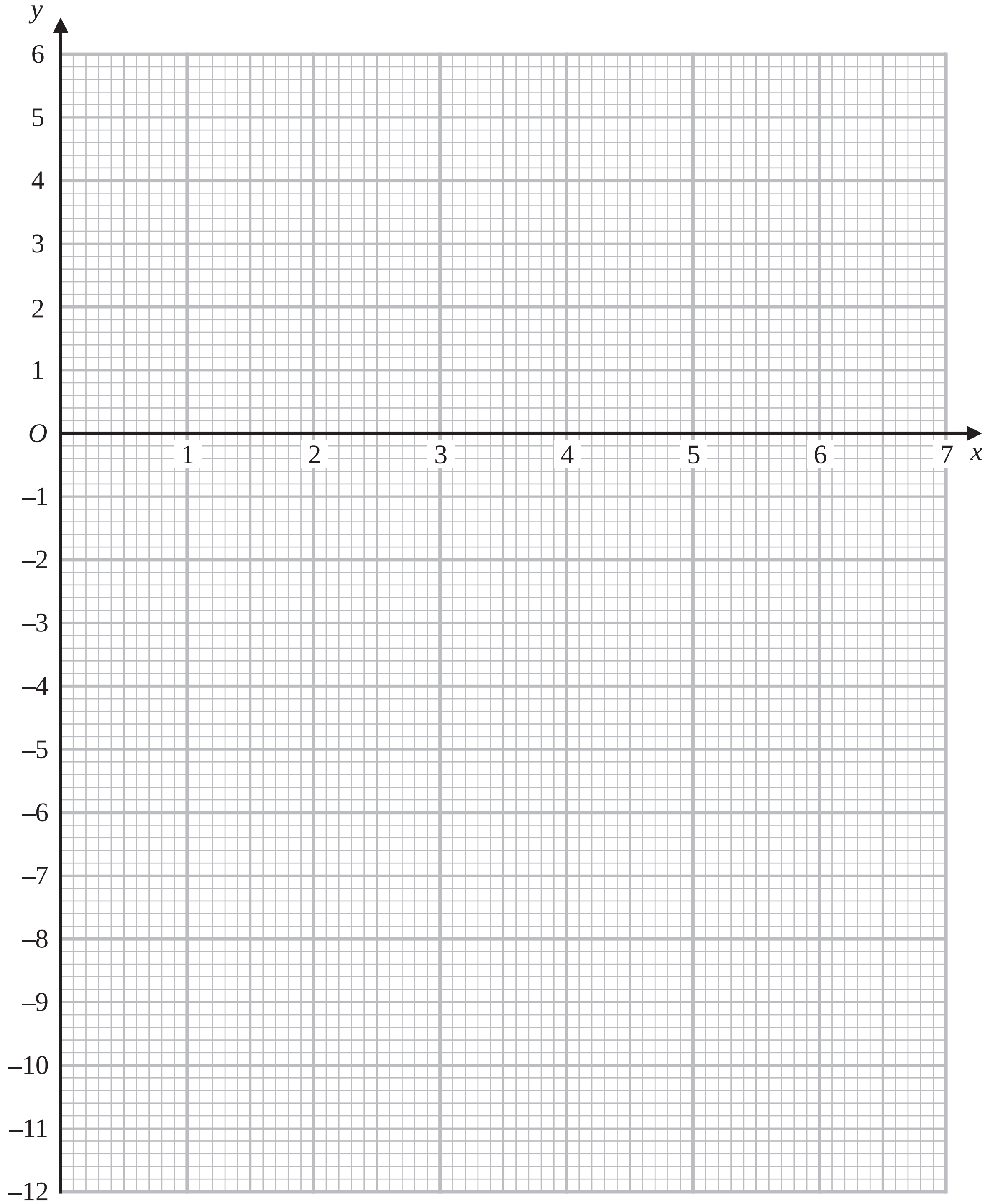
Turn over for a spare grid if you need to redraw your graph.

Question 6 continued

Question 6 continued

Only use this grid if you need to redraw your graph.



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(Total for Question 6 is 9 marks)