4

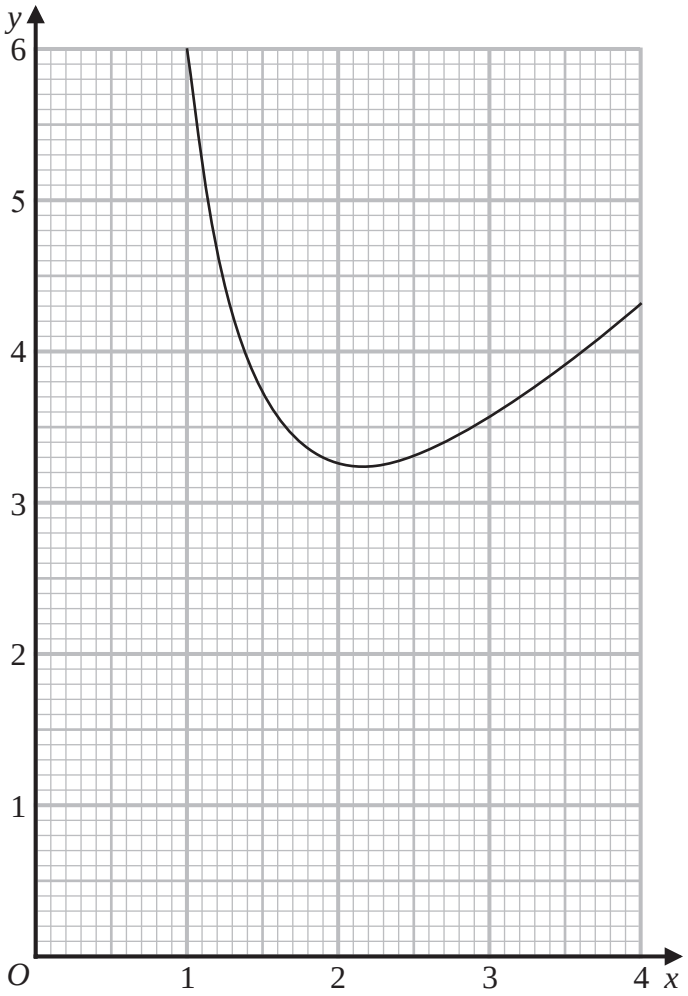

Figure 2

Figure 2 shows the graph of $y = x + \frac{5}{x^2}$ for $1 \leqslant x \leqslant 4$ drawn on a grid.

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

$$x^3 - 4x^2 + 5 = 0$$

in the interval $1 \leqslant x \leqslant 4$

(3)

(b) By drawing a suitable straight line on the grid, obtain an estimate, to one decimal place, for the root of the equation

$$x^3 - x^2 - 5 = 0$$

in the interval $1 \leqslant x \leqslant 4$

(4)

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Question 4 continued

(Total for Question 4 is 7 marks)