

- 6** The curve C has equation

$$y = x^2 + 2x + \frac{4}{x} \quad x \neq 0$$

- (a) Complete the table of values for C

x	-4	-2	-1	-0.5	0.5	1	2	4
y				-8.75		7	10	25

(2)

- (b) On the grid opposite, plot the points from your completed table.

(1)

The curve has one turning point and this has coordinates (1, 7)

- (c) Use your points to draw the graph of $y = x^2 + 2x + \frac{4}{x}$ $x \neq 0$

(1)

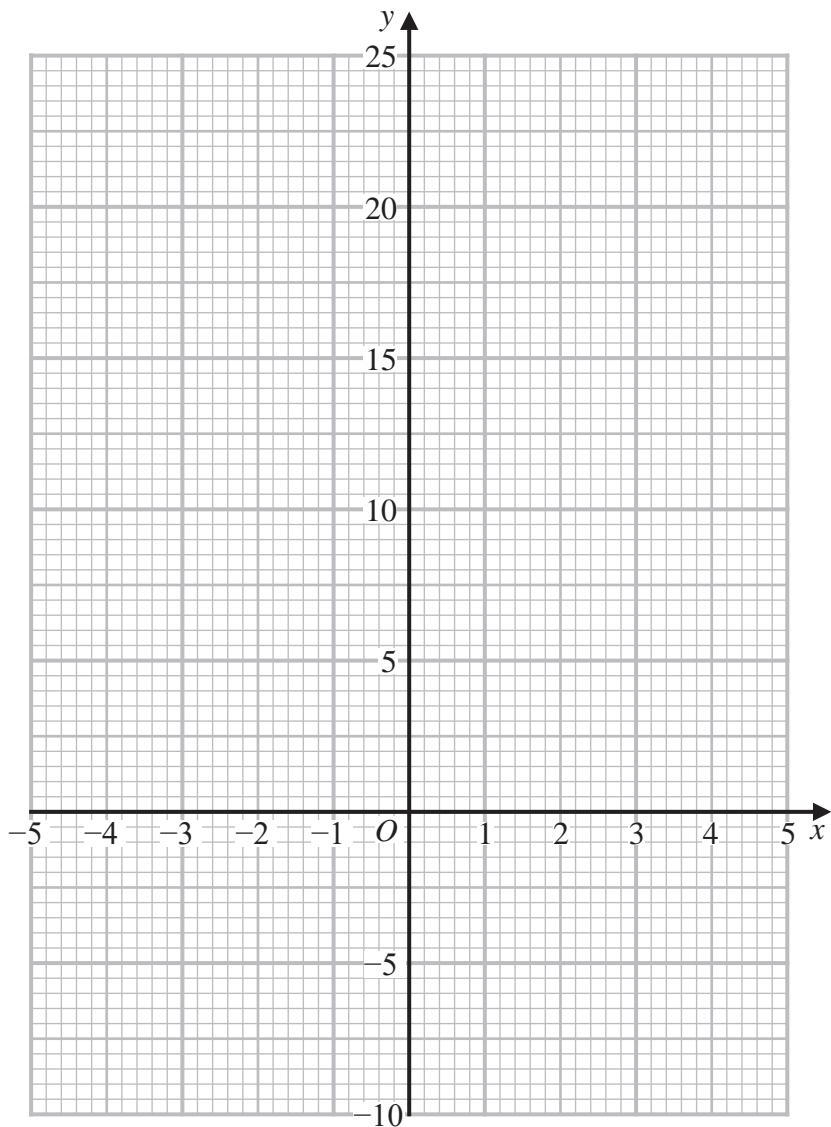
- (d) Using your graph, find an estimate, to one decimal place, for the solution of the equation

$$x^2 + 2x + \frac{4}{x} = 0 \quad (1)$$

- (e) By drawing a suitable line on the grid estimate, to one decimal place, the solutions of the equation

$$x^2 + 2x + \frac{4}{x} = 5x + \frac{3}{2} \quad (3)$$



Question 6 continued

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



Question 6 continued

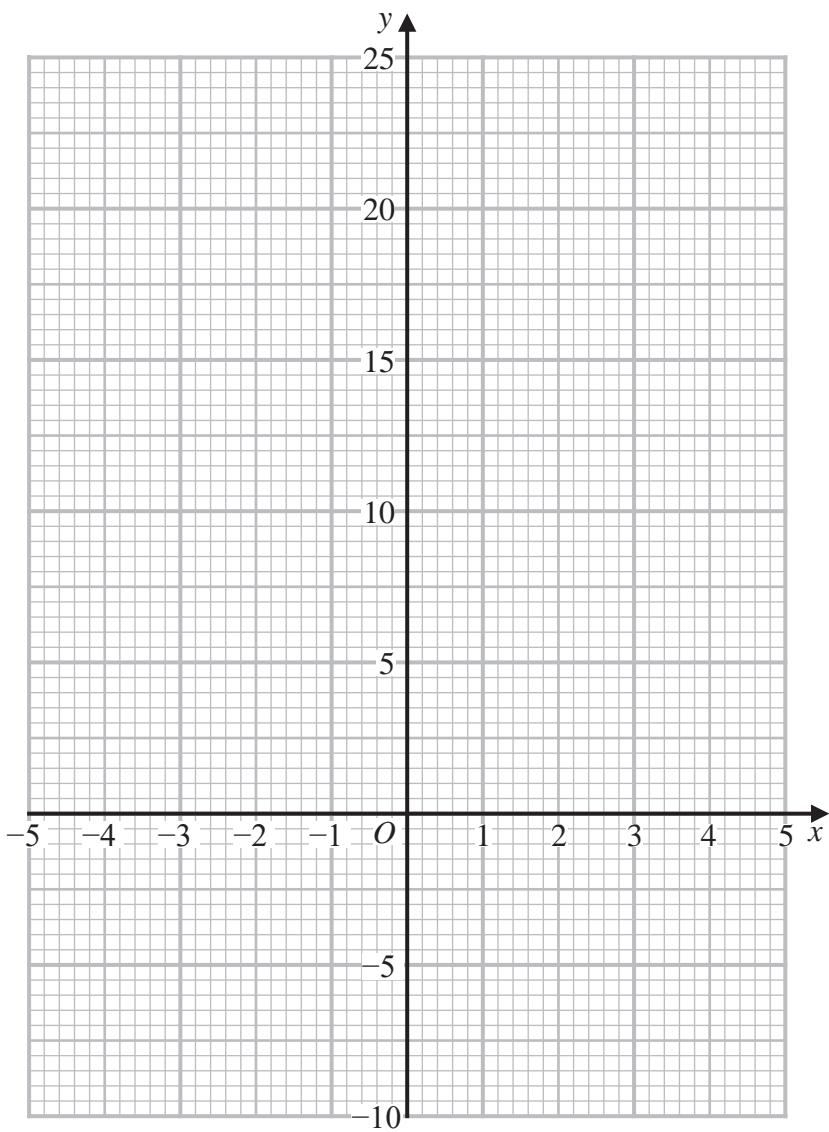
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Question 6 continued**Only use this grid if you need to redraw your graph.**

(Total for Question 6 is 8 marks)



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