7 (a) Complete the table of values for $y = 2x - 4 + \dfrac{5}{x^2}$, giving your answers to 2 decimal places where appropriate.

x	0.8	1	1.5	1.7	2	2.5	3	4
y	5.41		1.22			1.8		4.31

(2)

(b) On the grid opposite, draw the graph of $y = 2x - 4 + \dfrac{5}{x^2}$ for $0.8 \leqslant x \leqslant 4$

(2)

(c) Use your graph to obtain estimates, to 1 decimal place, of the roots of the equation

$2x + \dfrac{5}{x^2} = 6$ in the interval $0.8 \leqslant x \leqslant 4$

(2)

(d) By drawing a straight line on your graph obtain an estimate, to 1 decimal place, of

the root of the equation $4x + \dfrac{5}{x^2} = 12$ in the interval $0.8 \leqslant x \leqslant 4$

(4)

Question 7 continued
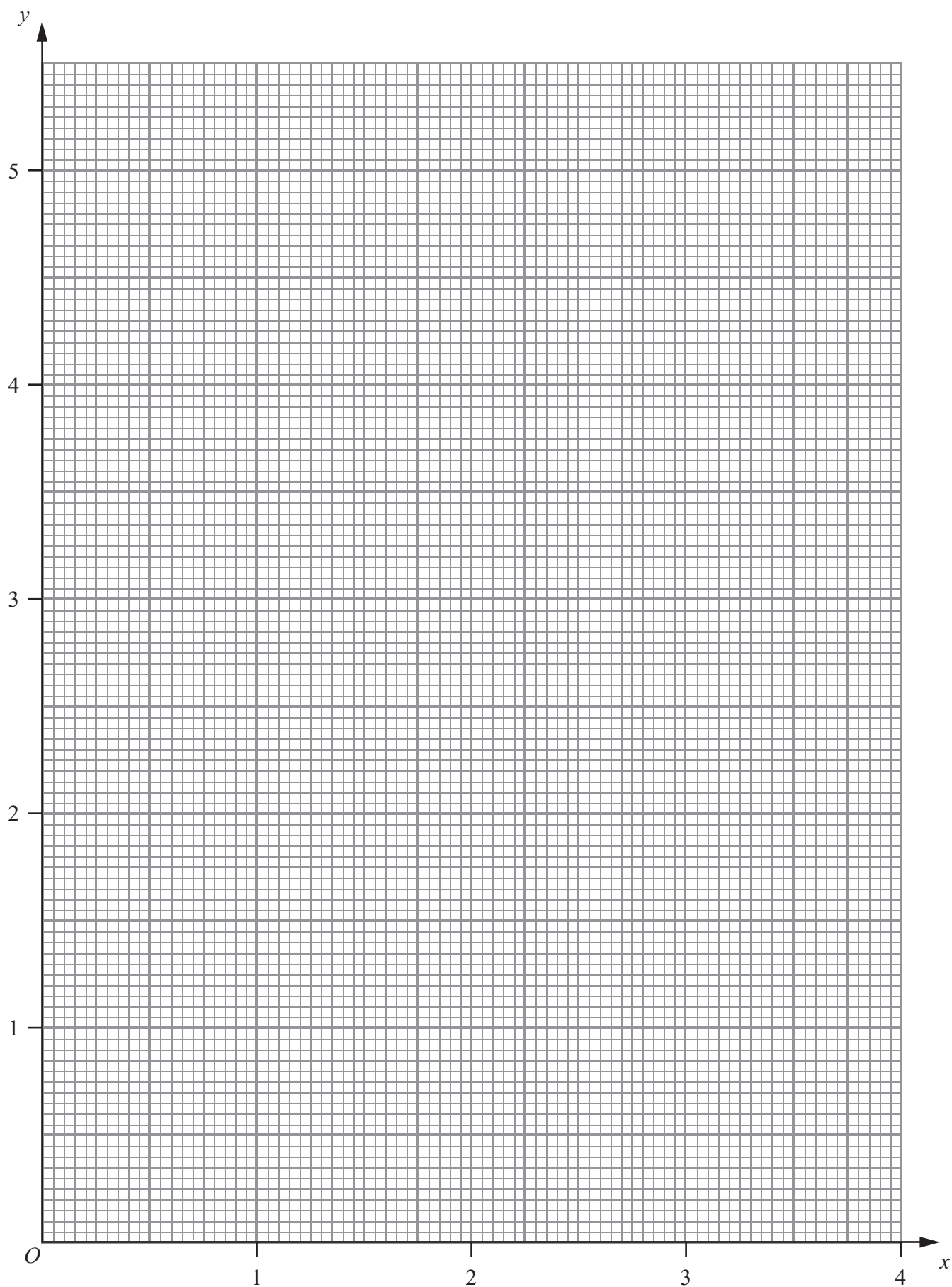
Use the grid on page 15 if you need to redraw your graph.

Question 7 continued

P 4 2 9 5 0 A 0 1 4 3 2

Question 7 continued
Use this page if you need to redraw your graph.
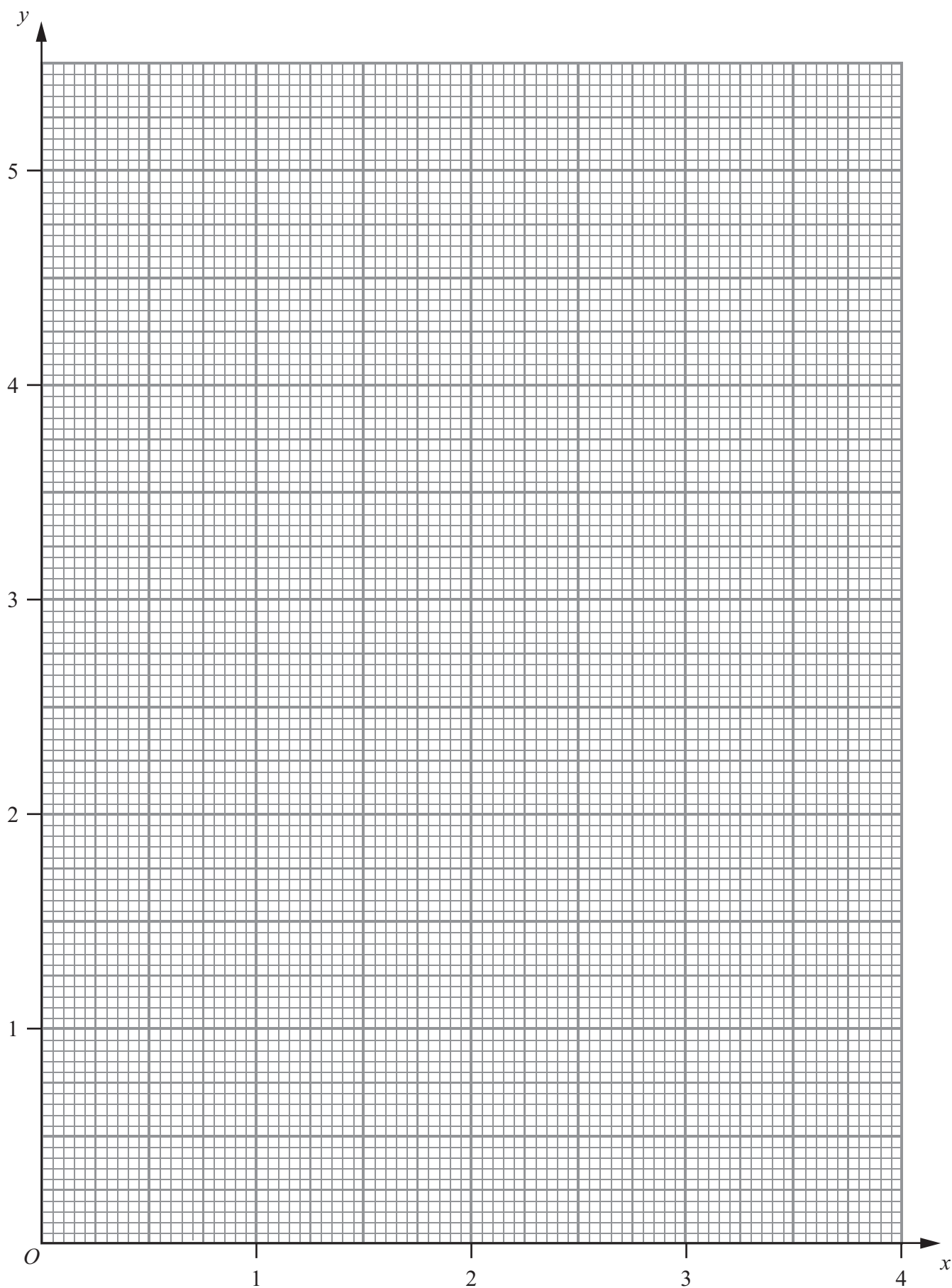
(Total for Question 7 is 10 marks)