6 (a) Complete the table of values for $y = 1 + 3e^{-x}$ giving your answers to 2 decimal places where appropriate.

(2)

X	0	0.25	0.5	1	1.5	2	3
у		3.34	2.82		1.67		1.15

(b) On the grid opposite, draw the graph of $y = 1 + 3e^{-x}$ for $0 \le x \le 3$

(2)

(c) By drawing an appropriate straight line on the grid, obtain an estimate, to one decimal place, of the root of the equation

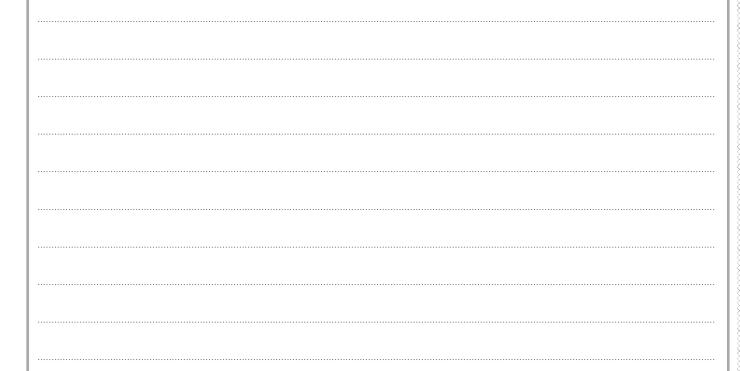
$$x = e^{-x}$$
 in the interval $0 \le x \le 3$

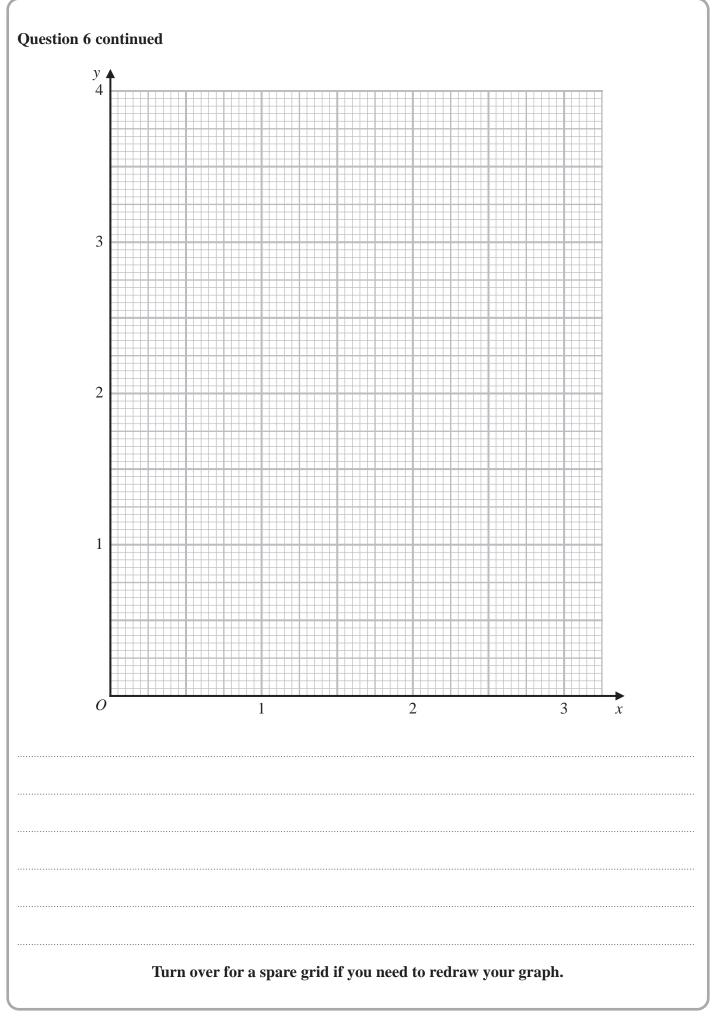
(3)

(d) By drawing an appropriate straight line on the grid, obtain an estimate, to one decimal place, of the root of the equation

$$\ln(x-1)^3 = -3x$$
 in the interval $0 \le x \le 3$

(4)







DO NOT WRITE IN THIS AREA

Question 6 continued	

