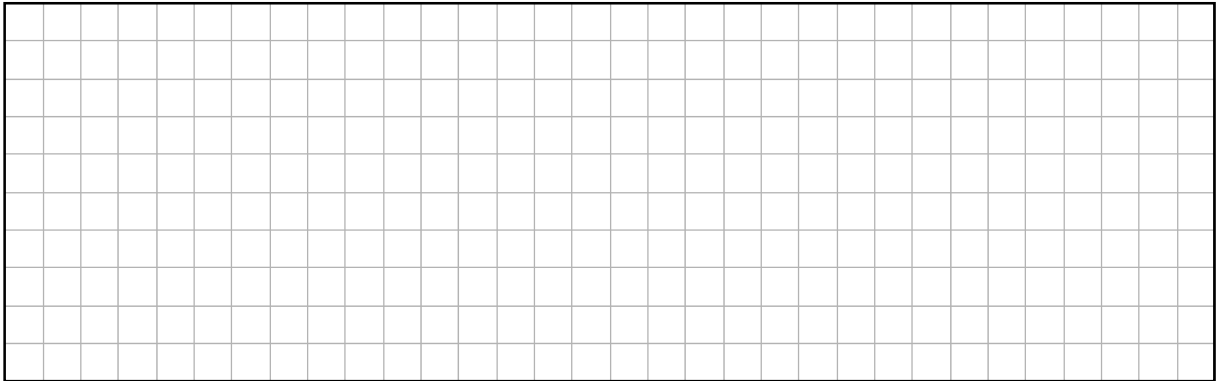


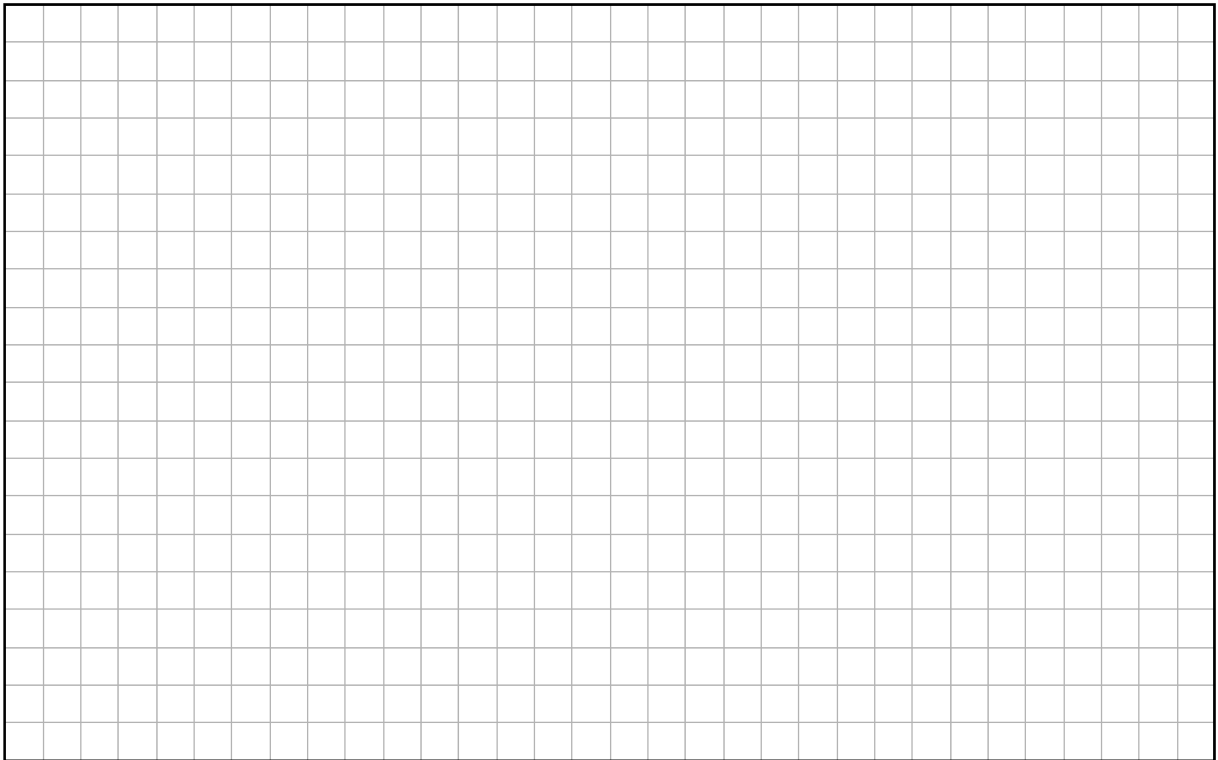
Question 3

(25 marks)

(a) Factorise fully: $3xy - 9x + 4y - 12$.



(b) $g(x) = 3x \ln x - 9x + 4 \ln x - 12$.
Using your answer to **part (a)** or otherwise, solve $g(x) = 0$.



(c) Evaluate $g'(e)$ correct to 2 decimal places.

