Question Number	Answer	Notes	Marks
5	(a) $\log_7(2x-3)=2 \Rightarrow (2x-3)=7^2$ $2x=52 \quad x=26$ (b) (i) $2x(\ln 3x-2)-4(\ln 3x-2)$ $=(2x-4)(\ln 3x-2)$ or $2(x-2)(\ln 3x-2)$ or $(x-2)(2\ln 3x-4)$ (ii) $2x-4=0 \quad x=2$ $\ln 3x=2 \quad 3x=e^2, \quad x=\frac{1}{3}e^2$	 M1 A1 M1A1 B1 M1,A1	 **(7)**

Notes

(a)

M1 for $(2x-3)=7^2$

A1 for $x=26$

(b)

(i)

M1 for an attempt at factorising any pair.

A1 for a fully correct factorisation seen. (alternatives above).

(ii)

B1 $x=2$

M1 for $\ln 3x=2 \Rightarrow 3x=e^2$

A1 for $x=\frac{e^2}{3}$