Question	Answer	Marks	Guidance
	Correctly separate variables and integrate at least one side	**M1**	To obtain $a\ln y$ or $b\ln(x+1) + c\ln(3x+1)$
	Obtain term $\ln y$ from integral of $1/y$	**B1**	
	State or imply the form $\frac{A}{x+1} + \frac{B}{3x+1}$ and use a correct method to find a constant	**M1**	
	Obtain $A = -\frac{1}{2}$ and $B = \frac{3}{2}$	**A1**	
	Obtain terms $-\frac{1}{2}\ln(x+1) + \frac{1}{2}\ln(3x+1)$ or $-\frac{1}{2}\ln(2x+2) + \frac{1}{2}\ln(6x+2)$ or combination of these terms	**A1 FT + A1 FT**	The FT is on the values of A and B.
	Use $x = 1$ and $y = 1$ to evaluate a constant, or expression for a constant, (decimal equivalent of ln terms allowed) or as limits, in a solution containing terms $a\ln y$, $b\ln(x+1)$ and $c\ln(3x+1)$, where $abc \neq 0$	***M1**	e.g. $\ln y = -\frac{1}{2}\ln(x+1) + \frac{1}{2}\ln(3x+1) - \frac{1}{2}\ln 2$
	Obtain an expression for y or y^2 and substitute $x = 3$	**DM1**	Do not accept decimal equivalent of ln terms
	Obtain answer $y = \frac{1}{2}\sqrt{5}$ or $\sqrt{\frac{5}{4}}$ or $\sqrt{\frac{10}{8}}$	**A1**	ISW. Must be simplified and exact, do not allow 1.118 or $e^{\frac{1}{2}\ln\frac{5}{4}}$.
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