Question	Answer	Marks	Guidance
	Separate variables correctly	**B1**	$\int \frac{x}{1+x^2}\,dx = \int \frac{1}{y}\,dy$ Accept without integral signs.
	Obtain term $\ln y$	**B1**	
	State term of the form $k \ln\left(1+x^2\right)$	**M1**	
	State correct term $\frac{1}{2}\ln\left(1+x^2\right)$	**A1**	OE
	Evaluate a constant, or use limits $x = 0$, $y = 2$ in a solution containing terms $a \ \ln y$ and $b\ln\left(1+x^2\right)$ where $ab \neq 0$	**M1**	If they remove logs first the constant must be of the correct form.
	Obtain correct solution in any form	**A1**	e.g $\ln y + \ln \frac{1}{2} = \frac{1}{2}\ln\left(1+x^2\right)$
	Simplify and obtain $y = 2\sqrt{1+x^2}$	**A1**	OE The question asks for simplification, so need to deal with $\exp(\ln(...))$.
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