

Question	Answer	Marks	Guidance
	Use law of the logarithm of a product or a quotient or a power	<b>*M1</b>	
	Obtain a correct linear equation in any form	<b>A1</b>	e.g. $\ln 2 + (2x-1)\ln 3 = (x+1)\ln 4$ or $\log_2 2 + (2x-1)\log_2 3 = (2x+2)\log_2 2$
	Solve for $x$	<b>DM1</b>	Allow for unsimplified expression $x = \dots$ Allow M1 M1 for $x=1.45$ from $6^{2x-1} = 4^{x+1}$ .
	Obtain answer $x = 2.21$	<b>A1</b>	The question asks for 2 dp.
	<b>Alternative method for question</b>		
	Correct use of indices to obtain $2.25^x = 6$ or $1.5^{2x} = 6$	<b>M1 A1</b>	
	Correct use of logarithms to solve for $x$	<b>M1</b>	Allow solution of $2.25^x = 6$ by trial and improvement as far as 2.2...
	Obtain answer $x = 2.21$	<b>A1</b>	Need to see an intermediate step / sequence of iterations.
		<b>4</b>	