Question			Answer	Marks	AO	Guidance	
4	**(a)**		$\dfrac{1}{(x-1)(x-2)} = \dfrac{A}{x-1} + \dfrac{B}{x+2}$ so $A(x+2) + B(x-1) = 1$ so $A = \frac{1}{3}$ and $B = -\frac{1}{3}$	**M1**	**1.1**	Attempt partial fractions with linear denominators, any method	
			$\dfrac{\frac{1}{3}}{x-1} - \dfrac{\frac{1}{3}}{x+2}$ oe	**A1** **[2]**	**1.1**		
	(b)		**DR** $\displaystyle\int_{2}^{3} \dfrac{1}{(x-1)(x+2)}\,\mathrm{d}x$ $= \left[\frac{1}{3}\ln(x-1) - \frac{1}{3}\ln(x+2) \right]_{2}^{3}$	**M1** **A1FT**	**1.2** **1.1**	Attempt integration using ln Correct integral in any equivalent form. FT their $A\ln(x-1) + B\ln(x+2)$	Must be seen May have no limits at this stage
				M1	**1.1a**	Attempt to substitute 3 and 2 in their integral and subtract	Must be seen
			$= \frac{1}{3}\left(\ln 2 - \ln 5 - \ln 1 + \ln 4\right)$	**A1**	**1.1**	All correct in any equivalent form	
			$= \frac{1}{3}\ln\frac{8}{5}$ or $\ln\sqrt[3]{\frac{8}{5}}$	**A1** **[5]**	**1.1**	isw; must include one ln only	