

Question		Answer	Marks	AO	Guidance		
10	(a)	Attempt use of product rule	M1	1.1a	Award for sight of two terms		
		Obtain $\ln(2y-7)$	A1	1.1			
		Obtain.... + $\frac{2(y+5)}{2y-7}$	A1	1.1			
			[3]				
10	(b)	$(y+5)\ln(2y-7)=0$	M1	1.1	Substitute $x=0$ and attempt to solve		
		$y=-5$ or $y=4$					
		Substitute $y=4$ into $\frac{dx}{dy}(=\ln 1+18)$	M1	3.1a			May attempt to form $\frac{dy}{dx}$ by attempting to form the reciprocal. Allow any attempt however poor
		Obtain $\frac{dy}{dx} = \frac{1}{18}$	A1	1.1			
		Substitute $y=-5$ into $\frac{dx}{dy}$ (or x)	M1	2.1			Do not allow $\ln -17 $
and indicate that $\ln(-17)$ does not exist	A1	2.3	May state that the \ln graph does not exist for negative values or at $(0, -17)$				
			[5]				