

Question	Answer	Marks	Guidance
	State $\frac{dx}{d\theta} = \sin \theta$ or $\frac{dy}{d\theta} = -\sin \theta + \frac{1}{2} \sin 2\theta$	B1	
	Use $\frac{dy}{dx} = \frac{dy}{d\theta} \div \frac{dx}{d\theta}$	M1	
	Obtain correct answer in any form	A1	e.g. $\frac{-\sin \theta + \frac{1}{2} \sin 2\theta}{\sin \theta}$
	Use double angle correctly to obtain $\frac{dy}{dx}$ in terms of θ	M1	$\sin 2\theta = 2\sin \theta \cos \theta$
	Obtain the given answer with no errors seen $-2\sin^2\left(\frac{1}{2}\theta\right)$	A1	AG. Requires correct cancellation of ALL $\sin \theta$ terms and $\cos \theta = 1 - 2\sin^2\left(\frac{1}{2}\theta\right)$ seen SC For incorrect signs, consistent throughout max. B0, M1, A0, M1, A1
		5	