Question	Answer	Marks	Partial Marks
11	Solves $\sin(4x-\pi)=0$ oe	**M1**	
	$a=\frac{3\pi}{4}$	**A1**	
	$\frac{dy}{dx}=4\cos(4x-\pi)$	**B2**	**B1** for $\frac{dy}{dx}=k\cos(4x-\pi)$, where $k>0$ or $k=-4$
	$\left[\frac{-1}{4\cos(4\times their\frac{3\pi}{4}-\pi)}=\right]-\frac{1}{4}$	**B2**	**FT** *their* $a=\frac{n\pi}{4}$, n is a positive integer **B1** for $\frac{-1}{their k\cos(4\times their\frac{3\pi}{4}-\pi)}$
	$y-0=-\frac{1}{4}\left(x-\frac{3\pi}{4}\right)$ or $0=-\frac{1}{4}\left(\frac{3\pi}{4}\right)+c$ oe	**M1**	**FT** *their* perpendicular gradient and *their a*
	$B\left(0,\frac{3\pi}{16}\right)$ soi	**B1**	
	[Exact area =] $\frac{9\pi^2}{128}$	**B1**	