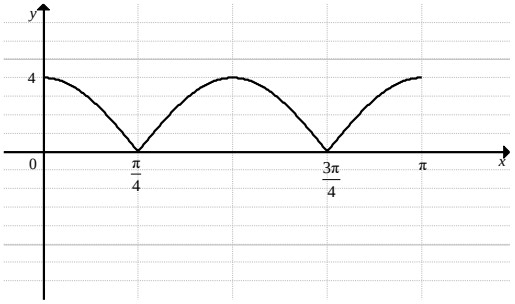
Question	Answer	Marks	Partial Marks
1	Correct sketch  	**3**	**B1** for correct shape, with 3 consistent maxima, 2 cusps on the *x*-axes and reasonable symmetry **B1** for $\left(\frac{\pi}{4},\ 0\right)$ and $\left(\frac{3\pi}{4},\ 0\right)$ either seen on the graph or stated; must have attempted a graph of correct shape **B1** for starts with (0, 4) **and** ends with (π, 4) and (0, 4) either seen on the graph or stated; must have attempted a graph correct shape
2	$\frac{11x^2}{12+1-4\sqrt{3}}$	**B1**	
	$\frac{11x^2\left(13+4\sqrt{3}\right)}{\left(13-4\sqrt{3}\right)\left(13+4\sqrt{3}\right)}$	**M1**	**FT** *their* expression of equivalent difficulty
	$\frac{11x^2\left(13+4\sqrt{3}\right)}{169-48}$ or $\frac{143x^2+44\sqrt{3}x^2}{169-48}$	**A1**	
	$\frac{x^2\left(13+4\sqrt{3}\right)}{11}$ or $\frac{13x^2+4\sqrt{3}x^2}{11}$	**A1**	mark final answer
	Alternative method		
	$\left(\frac{x\sqrt{11}(2\sqrt{3}+1)}{(2\sqrt{3}-1)(2\sqrt{3}+1)}\right)^2$	**(M1)**	
	$\left(\frac{x\sqrt{11}(2\sqrt{3}+1)}{12-1}\right)^2$ or $\left(\frac{2\sqrt{33}x+x\sqrt{11}}{12-1}\right)^2$	**(A1)**	
	$\frac{11x^2(12+1+4\sqrt{3})}{121}$ or $\frac{132x^2+11x^2+4\sqrt{363}x^2}{121}$	**(A1)**	
	$\frac{x^2\left(13+4\sqrt{3}\right)}{11}$	**(A1)**	mark final answer