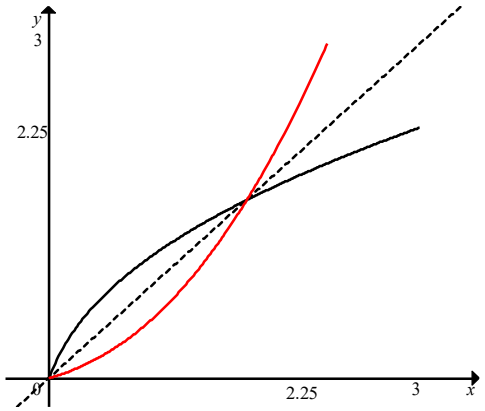
Question	Answer	Marks	Partial Marks
8(a)(i)	[Domain f^{-1}] $0 \leqslant x \leqslant 2.25$ oe	**B2**	**B1** for either end correct or for 0 and 2.25 in an incorrect inequality
	[Range f^{-1}] $0 \leqslant f^{-1} \leqslant 3$	**B1**	
8(a)(ii)	$x = 1.6$ oe or $x = 0$	**2**	**B1** for each
8(a)(iii)		**2**	**B1** for attempt at correct graph of inverse function drawn over correct domain soi **B1** for correct shape with intersection in approximately correct location
8(b)(i)	For a complete method to find the inverse, including changing the subject and swapping the variables	**M1**	
	$\left[g^{-1}(x) = \right]\sqrt[3]{\dfrac{x^3-3}{8}}$ oe mark final answer	**A1**	
8(b)(ii)	[k =] 0	**1**	
8(b)(iii)	$\sqrt[3]{8e^{12x}+3}$ mark final answer	**1**	

Question	Answer	Marks	Partial Marks
9(a)	$\frac{1}{2} \times 24^2 \times \theta = 432$	**M1**	
	$\theta = \frac{3}{2}$ rads soi	**A1**	
	$24 \times$ *their* θ	**M1**	
	36 cao	**A1**	
	Alternative method		
	$s = r\theta$ soi and $\frac{1}{2} \times r \times s = 432$	**(B1)**	
	$\frac{1}{2} \times 24 \times s = 432$	**(M1)**	
	$s = \frac{432 \times 2}{24}$ oe	**(M1)**	
	[s =] 36	**(A1)**	
9(b)(i)	[OB =] $2y\cos\alpha$ oe	**B1**	
9(b)(ii)	$\frac{(their\ 2y\cos\alpha) \times y\sin\alpha}{2}$ $-\frac{1}{2} \times (their\ y\cos\alpha)^2 \times \alpha$ oe	**M2**	**M1** for either area
	correct completion to $\frac{y^2}{2}\cos\alpha(2\sin\alpha - \alpha\cos\alpha)$	**A1**	