Question	Answer	Marks	Partial Marks
5(b)	$x = 2$	**B1**	
	$5x - 7 = their(-3)$ oe, soi or $25x - 35 = their(-15)$ oe, soi	**M1**	
	$x = \frac{4}{5}$ oe	**A1**	
	Alternative method		
	$25x^2 - 70x + 40 = 0$ oe	**(B1**	
	factorising e.g. $(5x - 4)(x - 2)$	**M1**	
	$x = 2,\ \frac{4}{5}$	**A1)**	
6(a)	$2(6) + 6\theta = 2(6 + 5\pi)$ oe	**M1**	
	$\theta = \frac{5}{3}\pi$ oe, soi	**A1**	
	$\frac{1}{2} \times 6^2 \times their\left(\frac{5\pi}{3}\right)$	**M1**	
	94.2 or 30π	**A1**	
	Alternative method		
	arc $AB = 10\pi$	**(M1**	
	sector is $\frac{10\pi}{12\pi} = \frac{5}{6}$ of the circle	**B1**	
	$\frac{5}{6} \times 36\pi$	**M1**	
	94.2 or 30π	**A1)**	
6(b)	$2\left(7\sin\frac{\pi}{8}\right) + \frac{7\pi}{4}$ oe, soi	**M2**	**M1** for $2\left(7\sin\frac{\pi}{8}\right) + their\left(\frac{7\pi}{4}\right)$ or $their\left(2\left(7\sin\frac{\pi}{8}\right)\right) + \frac{7\pi}{4}$
	10.9 or 10.85 to 10.86	**A1**	

Question	Answer	Marks	Partial Marks
7	Eliminates one variable e.g. $x^2 = 5(x^2 - 2x + 1) - 1$ or $y = 5y - 1 - 2\sqrt{5y - 1} + 1$	**M1**	
	Collects terms ready to solve e.g. $4x^2 - 10x + 4 = 0$ or $4y^2 - 5y + 1 = 0$	**A1**	
	Factorises, applies the formula or completes the square e.g. $2(2x - 1)(x - 2)$ or $(4y - 1)(y - 1)$	**M1**	
	Both $(0.5,\ 0.25)$ and $(2, 1)$	**A2**	**A1** for either $(0.5, 0.25)$ or $(2, 1)$ provided nfww or $x = 0.5, 2$ or $y = 0.25, 1$
8(a)	Valid explanation e.g. Each value of x is mapped to a unique value of y.	**B1**	
8(b)	$-5 \leqslant f \leqslant 1$	**B1**	
8(c)	$a = 3, b = 0.75$ oe, $c = -2$	**B4**	**B1** for $a = 3$ **B1** for $c = -2$ **M1** for $\frac{2\pi}{b} = \frac{8\pi}{3}$ oe **A1** for $b = 0.75$ oe