Question	Answer	Marks	Partial marks
9(b)	$\sin\left(y+\frac{\pi}{3}\right)=0$	**B1**	
	$\cos\left(y+\frac{\pi}{3}\right)=\frac{1}{2}$	**B1**	
	$y+\frac{\pi}{3}=0$ or π or 2π or $\frac{\pi}{3}$ or $\frac{5\pi}{3}$	**M1**	Finds one correct and valid compound angle May be in degrees for this mark
	y: $\frac{2\pi}{3}$, $\frac{5\pi}{3}$, 0, $\frac{4\pi}{3}$ oe, nfww	**A2**	**A1** for any two correct angles ignoring extras
10	$n = 6$ stated; nfww	**B2**	**B1** for first term: $\left(3x^2\right)^n$ or $\left(3x^2\right)^6$ soi
	$-6\left(3x^2\right)^5 a+2\left(729x^{10}\right)=972x^{10}$ oe and $\frac{6\times5\left(3x^2\right)^4(-a)^2}{2}+6\left(3x^2\right)^5\times\frac{2}{x^2}(-a)+729x^8=bx^8$ oe	**B3**	**B2** for one correct equation **OR** **B1** for second term: $n(-a)\left(3x^2\right)^{n-1}$ or $6(-a)\left(3x^2\right)^5$ or $-1458ax^{10}$ soi **B1** for third term: $\frac{n(n-1)(-a)^2\left(3x^2\right)^{n-2}}{2}$ or $\frac{6(5)(-a)^2\left(3x^2\right)^4}{2}$ or $1215a^2x^8$ soi **B1** for 1 [+] $\frac{2}{x^2}$ [+] $\frac{1}{x^4}$ soi
	$a=\frac{1}{3}$	**B2**	**B1** for $-1458a+1458=972$ soi
	$b = -108$	**B2**	**B1** for $1215a^2 - 2916a + 729$ soi

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