

Question		Answer	Marks	AO	Guidance
4		DR			
		$6(1 - \sin^2 x) + \sin x = 5$	M1	3.1a	Uses the identity $\sin^2 x + \cos^2 x = 1$
		$6\sin^2 x - \sin x - 1 = 0$	M1	1.1a	Collects terms and attempts to solve their quadratic
		$\sin x = \frac{1}{2}, -\frac{1}{3}$	A1	1.1b	soi. May be BC. FT their quadratic
		When $\sin x = \frac{1}{2}, x = 30^\circ, 150^\circ$	A1	1.1b	At least one correct root in the interval for either value of $\sin x$ FT their valid value for $\sin x$
When $\sin x = -\frac{1}{3}, x = -19.5^\circ, -160.5^\circ$	A1	1.1b	All roots seen from complete working – no extras in the range FT their other valid value for $\sin x$ Ignore additional answers outside the range.		
			[5]		