Question number	Scheme	Marks
6 (a)	$(\sin A\cos B+\cos A\sin B)+(\sin A\cos B-\cos A\sin B)$ $= 2\sin A\cos B$ *	M1 A1 cso (2)
(b)	$\sin 8x+\sin 6x$	B1 (1)
(c)	$3\int_0^{\frac{\pi}{4}}(\sin 8x+\sin 6x)\,dx$ $= (3)\left[-\frac{1}{8}\cos 8x-\frac{1}{6}\cos 6x\right]_0^{\frac{\pi}{4}}$ $= (3)\left[\left(-\frac{1}{8}-0\right)-\left(-\frac{1}{8}-\frac{1}{6}\right)\right]$ $= \frac{1}{2}$ cao oe	M1 A1 M1 A1cao (4) **[7]**

Part	**Mark**	**Additional Guidance**
(a)	M1	Correct expression show.
	A1	cso
(b)	B1	For the expression shown
(c)	M1	$k\int_0^{\frac{\pi}{4}}(\sin 8x+\sin 6x)\,dx$ $k\neq 0$ or 1 k must be an integer. This mark can be awarded if the limits aren't seen on the integral.
	A1	Correctly integrated, the 3 and the limits need not be present for this mark
	M1	Correctly shown substitution of limits, with a subtract sign between. The 3 need not be present for this mark, need not be simplified. *This mark can be implied if first M1 A1 awarded and final correct answer.* Allow a correct substitution of limits into any changed expression.
	A1	cao oe