Q	Marking Instructions	AO	Marks	Typical Solution
10 (a)(i)	States $A = 12$	3.3	B1	$A = 12$
10 (a)(ii)	States $B = 6$	3.3	B1	$B = 6$
10 (a)(iii)	Applies formula using their A and B 2 sf or better provided their answer >12 and <24	1.1b	B1F	$12 + 6 \sin 58 = 17.1$
10 (a)(iv)	Substitutes 17.4 into formula with their A and B	1.1a	M1	$17.4 = 12 + 6 \sin t$
	Evaluates first value of t. AWFW 64 to 65	1.1b	A1	$\sin t = 0.9$ $t = 64$
	Evaluates second value of t as 180 – their first value ±1 Or Subtracts their first value from 90 and doubles	3.4	M1	second value of t is 116
	Obtains final answer AWRT 50	3.2a	A1	So answer is 53 days
10 (a)(v)	Explains 360 days is not the same as a year. Must mention 360	3.5b	E1	Jude's model will repeat after 360 days but a year has 365 days.
10(b)	Explains that Anisa's model adjusts the repeating pattern to match the number of days in a year. Mark may be supported by response seen in part (a)(v)	3.5c	E1	Anisa's model will repeat after 365 days because of the fraction
	Total		**9**	