Question number	Scheme	Marks
2 (a)(i)	$a+4d=46$ $\quad a+19d=181$ oe	B1
	$"15d=135"\Rightarrow d=9$	M1 A1 [3]
(a)(ii)	$a=10$	B1 [1]
(b)	$\sum_{n=1}^{50}u_n=25(2\times"10"+(50-1)\times"9")=11525$	M1
	$\sum_{n=1}^{20}u_n=10(2\times"10"+(20-1)\times"9")=1910$	M1
	$"11525"-"1910"=9615$	ddM1 A1 [4]
ALT	(First term =) $"10"+"9"\times(21-1)=190$	{M1}
	(Last term =) $"10"+"9"\times(50-1)=451$	{M1}
	$\frac{30}{2}("190"+"451")=9615$	{ddM1}{A1} [4]
		Total 8 marks

Part	Marks	Notes
(a) (i)	**B1**	For $a+4d=46$ and $a+19d=181$, both correct oe.
	M1	For solving their equations simultaneously, valid correct method with one slip only (algebraic or sign error), leading to $d=$
	A1	For $d=9$
(a) (ii)	**B1**	For $a=10$
(b)	**M1**	For use of their a and d in the correct formula for the sum to n terms $\frac{n}{2}(2"a"+(n-1)"d")$ with $n=50$
	M1	For use of their a and d in the correct formula for the sum to n terms $\frac{n}{2}(2"a"+(n-1)"d")$ with $n=20$
	ddM1	For their $"\sum_{n=1}^{50}u_n"-"\sum_{n=1}^{20}u_n"$ Dependent on both previous method marks
	A1	For 9615
	ALT	
	M1	For correct use of $"a"+(n-1)"d"$ with $n=21$ with their a and their d
	M1	For correct use of $"a"+(n-1)"d"$ with $n=50$ with their a and their d
	ddM1	For correct use of the formula $\frac{n}{2}(a_{21}+a_{50})$ Dependent on both previous method marks
	A1	For 9615