

Q	Marking Instructions	AO	Marks	Typical Solution
7(a)	States any correct reason	AO2.3	B1	Just checking a few cases only proves it for those cases
(b)	Commences an argument, writing the sum of two consecutive odd numbers algebraically (at least two lines of argument)	AO2.1	R1	Two consecutive odd numbers can be written as $2n+1$ and $2n+3$ Their sum is $2n+1+2n+3 \equiv 4n+4$
	At some point in the argument correctly writes the difference of two appropriate square numbers algebraically	AO2.5	R1	n^2 and $(n+2)^2$ are two square numbers Their difference is $(n+2)^2 - n^2$
	Correctly deduces the result from correct working	AO2.2a	R1	$\equiv n^2 + 4n + 4 - n^2$ $\equiv 4n + 4$ Therefore the sum of two consecutive odd numbers can always be written as the difference of two square numbers
	Total		4	