6	**(a)**		31 gives $3^2+1^2=10$ 10 is even and hence the suggestion is false	**M1** **E1** **[2]**	**2.1** **2.1**		**OR** **M1** 37 gives $3^2+7^2=58$ **E1** 58 is even and hence the suggestion is false
6	**(b)**		$n^2+(n+1)^2+(n+2)^2$ $3n^2+6n+5$ $3(n^2+2n+1)+2$ which always leaves a remainder of 2 and so cannot be divided by 3	**M1** **A1FT** **E1** **[3]**	**2.1** **1.1** **2.1**	Any valid expressions for three consecutive integers FT *their* expressions Correct conclusion.	