Q	Marking instructions	AO	Marks	Typical solution
9(a)	States correct factorisation	1.1b	B1	$n^3 - n = n(n^2 - 1)$ $= n(n - 1)(n + 1)$
	Subtotal		**1**	

Q	Marking instructions	AO	Marks	Typical solution
9(b)	States that $(n - 1)$, n, $(n + 1)$ are 3 consecutive integers. Or States that all integers are either a multiple of 3 or 1 more or less than a multiple of 3	3.1a	E1	$(n - 1)\ n\ (n + 1)$ is the product of three consecutive integers So one must be a multiple of 3 And at least one must be a multiple of 2 So the product has factors of 2 and 3, so is a multiple of $2 \times 3 = 6$
	Deduces that one of these factors must be a multiple of 3 (PI) Or Deduces that one of these factors must be a multiple of 2. Condone 'even' for implied multiple of 2.	2.2a	E1	
	States that at least one must be a multiple of 2 (even), one must be a multiple of 3 and draws correct conclusion.	2.1	R1	
	Subtotal		**3**	

	Question Total		**4**	