Question			Answer	Marks	AOs	Guidance	
7			$f(x+h) = x^4 + 4x^3h + 6x^2h^2 + 4xh^3 + h^4$	**M1**	**1.1**	Attempt at expansion with product of powers of x and h summing to 4 and some attempt at coefficients, not necessarily correct	
			$\frac{f(x+h)-f(x)}{h} = \frac{4x^3h + 6x^2h^2 + 4xh^3 + h^4}{h}$	**M1**	**1.1**	Attempt $\frac{f(x+h)-f(x)}{h}$ Allow at most two errors	
			$= 4x^3 + 6x^2h + 4xh^2 + h^3$	**A1**	**1.1**	All terms correct	
			As $h \to 0$ all the terms in h tend to zero.	**A1**	**2.4**	Accept some indication that as h tends to 0, the terms involving h vanish and leave $4x^3$	
			Therefore $f'(x) = \lim_{h\to 0} \frac{f(x+h)-f(x)}{h} = 4x^3$				
				E1	**2.1**	Award for good use of language, and of limit and function notation	Only requires the two M1 marks to be awarded.
				[5]			