Question	Working	Answer	Mark	Notes	Sub-Total	Total
19	$(3x+2)\times\frac{5}{3x^2-7x-6}\left[-\frac{5}{x+3}\right]$		M1	For × by reciprocal condone missing bracket round $3x + 2$		
	$(3x+2)\times\frac{5}{(3x+2)(x-3)}\left[-\frac{5}{x+3}\right]$		M1	Factorising correctly		
	$\frac{5(x+3)-5(x-3)}{(x-3)(x+3)}$		M1	Correct method for combining into a single fraction		
	$\frac{5x+15-5x+15}{(x+3)(x-3)}$					
		$\frac{30}{x^2-9}$	A1	or $\frac{30}{(x+3)(x-3)}$		4
20	$\overrightarrow{AP} = -\mathbf{a} + \frac{5}{6}(\mathbf{a} + 3\mathbf{b})$ **[=** $-\frac{1}{6}\mathbf{a} + \frac{5}{2}\mathbf{b}$**]**		M1	For correct vector for $\overrightarrow{AP}$		
	$\overrightarrow{AD} = -\mathbf{a} + n\mathbf{b}$ **or** $-\mathbf{a} + (5+n)\mathbf{b}$		M1	indep allow $\overrightarrow{OD} = \mathbf{a} + n\overrightarrow{AP}$		
	$\overrightarrow{AD} = 6(-\frac{1}{6}\mathbf{a} + \frac{5}{2}\mathbf{b})$ [=$-\mathbf{a} + 15\mathbf{b}$]		M1	or $AD = 6AP$ or $1-\frac{1}{6}n = 0$ and $\overrightarrow{OD} = 15\mathbf{b}$		
	$OB : OD = 5 : 15$	1 : 3	A1	Seeing 5 : 15 or $5\mathbf{b} : 15\mathbf{b}$ equals 1 : 3 from correct working		4