

Q	Marking instructions	AO	Marks	Typical solution
4(a)	Express at least one term correctly using binomial expansion PI by correct value of p or q or expression for x^8 and x^9 Condone sign error for -3	1.1a	M1	$(2x)^{10} + {}^{10}C_1(2x)^9(-3) + {}^{10}C_2(2x)^8(-3)^2$ $1024x^{10} - 15360x^9 + 103680x^8$
	Obtains correct value of p or q PI in the expression may be unsimplified	1.1a	M1	
	Completes argument with correct values of p and q to show the required result	2.1	R1	
	Subtotal		3	

Q	Marking instructions	AO	Marks	Typical solution
4(b)	Deduces the constant term comes from $(2x)^5 \left(\pm \frac{3}{x}\right)^5$ PI by $(\dots x)^5 (\dots x)^{-5}$	2.2a	M1	${}^{10}C_5 \times 2^5 \times (-3)^5 = -1959552$
	Obtains -1959552	1.1b	A1	
	Subtotal		2	

	Question Total		5	
--	-----------------------	--	----------	--