

Q	Marking instructions	AO	Marks	Typical solution
5(a)	Shows that 3 has been substituted and $f(3) = 0$ and states that Kaya is correct OE	2.4	E1	$f(3) = 54 - 63 - 36 + 45 = 0$ Kaya is correct that $f(3) = 0$ But Kaya's conclusion is wrong $(x - 3)$ is a factor of $f(x)$
	States that Kaya is incorrect and gives the correct conclusion Kaya should have reached Or States that Kaya is incorrect and that $f(-3) \neq 0$ Or States that Kaya is incorrect and provides evidence that $(x + 3)$ is not a factor of $f(x)$	2.3	E1	
	Subtotal		2	

Q	Marking instructions	AO	Marks	Typical solution
5(b)	Divides $f(x)$ by $x - 3$ or $x + 3$ or uses inspection. Must obtain $2x^2$ or 15 or finds another root of $f(x) = 0$	1.1a	M1	$(2x^3 - 7x^2 - 12x + 45) / (x - 3)$ $= 2x^2 - x - 15$ $(x - 3)^2(2x + 5)$
	Finds correct quadratic factor or both remaining roots of $f(x) = 0$	1.1b	A1	
	Factorises $f(x)$ correctly ISW	1.1b	A1	
	Subtotal		3	

	Question 5 Total		5	
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