Question	Scheme	Marks	AOs
14 (a)	$x > -4$	B1	1.1b
		(1)	
(b)	$(x+4)(2x^2+x+7)=2x^3+9x^2+11x+28$	M1 A1	1.1b 1.1b
		(2)	
(c)	Deduces that equation of l is $y=kx+28$	B1ft	1.1b
	Sets $2x^3+9x^2+11x+28=kx+28$ and proceeds to quadratic eqn.	M1	3.1a
	$2x^2+9x+(11-k)=0$	A1	1.1b
	Uses $b^2-4ac=0 \Rightarrow 81-8(11-k)=0$	M1	2.1
	$k=\dfrac{7}{8}$	A1	1.1b
		(5)	
		(8 marks)	
Notes:			

(a)
B1: As scheme. Allow in words
(b)
M1: For an attempt to expand.
    Award for a cubic with the "first term" $2x^3$, constant term 28 and some intermediate term(s)
A1: Fully correct (any order) but must be simplified
(c)
B1ft: Deduces that l has equation $y=kx+28$ following through on their "28"

M1: Sets their $2x^3+9x^2+11x+28=$ their $kx+28$ and proceeds to quadratic eqn.
    They may just take out a factor of x which is acceptable
A1: Correct quadratic $2x^2+9x+(11-k)=0$

M1: For the key step in realising that it is a tangent when $b^2-4ac=0$ and uses it to forming a linear equation in k.
A1: $k=\dfrac{7}{8}$ o.e.