

23	(a)	$6 \times (-4)^3 + k \times (-4)^2 - 26 \times -4 - 24 = 0$ or $6 \times (-4)^3 + 19 \times (-4)^2 - 26 \times -4 - 24$		2	M1 correct substitution of $x = -4$ into equation. Must be equal to zero (or implied by later working) or if substituting $x = -4$ and $k = 19$ into the expression we do not need it = 0 for this mark. Condone missing brackets around the -4
		$16k = 304$ or $k = \frac{304}{16}$ and $k = 19$ or $-384 + 304 + 104 - 24 = 0$ and shown			A1 completion to show clearly that $k = 19$ either by completing equation correctly (must see at least one line of working after the first line) and $k = 19$ or for $-384 + 304 + 104 - 24 = 0$ and comment (eg shown, or #)
	(b)	$(6x^2 \dots \dots \dots)$		4	M1 for a start to find the quadratic factor.
		$(6x^2 - 5x - 6)$			M1 for a correct 3 term quadratic
		$(3x+2)(2x-3)$ or $(3x+2)(2x-3)(x+4)$			M1 dependent on the 2 nd M1 being awarded for correct factorisation of the quadratic. Do not allow fractions or decimals eg $(x-1.5)$ or $\left(x+\frac{2}{3}\right)$ (ie) or a correct use of the quadratic formula. Implied by $-\frac{2}{3}$ and $\frac{3}{2}$ as two of the solutions (Allow -0.67 or better for $-\frac{2}{3}$)
			$-4, -\frac{2}{3}, \frac{3}{2}$		A1 oe $(-0.67$ or better for $-\frac{2}{3}$) dep on all 3 method marks being awarded. Do not ISW. Mark the answer on the answer line. If no answer on the answer line mark the final line of their working.
<i>wr</i>					Total 6 marks

Question	Working	Answer	Mark	Notes
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