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Question Number	Scheme	Marks
1(a)	Substitute $x = \pm 2$ or divide by $(x-2)$ Rem = 0	M1 A1 (2)
(b)	Use remainder theorem with $x = \pm 1, \pm 3$; remainder theorem again or inspection OR Divide $f(x)$ by $x-2$, Factorise quadratic	M1M1
	$(x-2)(x+3)(x-1)$ All 3 brackets must be shown.	A1 (3) [5]

Notes

(a)
M1: for either substituting ±2 or attempting to divide by $(x-2)$
A1: for the remainder = 0
This is a show so please check that $f(\pm 2) = (\pm 2)^3 - 7(\pm 2) + 6$ is seen for M1
and $8 - 14 + 6 = 0$ or $2^3 - 2 \times 7 + 6 = 0$ is seen for the A mark

ALT Using division
M1: minimally acceptable answer for the quotient for this mark is $x^2 + 2x \pm k$ If there is no evidence of inclusion of a term in x^2 somewhere in their division – M0
A1: correct quotient $(x-2)(x^2+2x-3)$ **and** there must be a conclusion.
ie., therefore $(x – 2)$ is a factor oe.

(b)
In general, first M1 for finding one factor or dividing by $(x-2)$, second M1 for finding second factor.

M1: for remainder theorem OR by inspection OR divide by $(x-2)$ to give a quadratic factor OR by expanding and comparing coefficients.
Note: If there is no evidence of inclusion of a term in x^2 somewhere in their division – M0
Look for $x^2 + 2x \pm k$ to award M1

M1: for using remainder theorem again OR by inspection OR factorising the quadratic factor (refer to general guidance) OR by comparing coefficients
A1: for answer as shown

Note: $(x-2)(x-3)(x+1)$ with no working is M0M0A0