8	**(a)**		$b = -1,\ c = 1$	**B1** **[1]**	or $(n + 1)(n^2 - n + 1)$
8	**(b)**		$n + 1$ (or $n^2 - n + 1$) is a factor of K $n > 2$ so $n + 1 > 1$ or $n + 1 > 3$ or $n + 1 \neq 1$ ($n^2 - n + 1$ is a factor of K and $n^2 - n + 1 > 1$ or $\neq 1$) Assume these factors are equal Let $n^2 - n + 1 = n + 1$ $\Rightarrow n^2 - 2n = 0$ $n = 0$ or 2. $n > 2$ so both invalid; hence 2 distinct factors Ignore attempted proofs that either factor $\neq K$	**B1** **B1** **M1** **A1** **A1** **[5]**	Stated. Allow x instead of n NOT $n^3 + 1$ can be expressed as $(n+1)(n^2 - n + 1)$ Must see $n > 2$ Allow omission of this step Conclusion stated, from correct working seen. Dep at least B1M1 and correct reasoning given SC: $(n+1) > 1$ or $n + 1 > 3$ (or $n^2 - n + 1 > 1$) B1 $(n+1)$ & $(n^2 - n + 1)$ are factors of K B1