For $n\in N$, let G be the graph with vertex set $\{v\_{0},…,v\_{3n}\}$ defined by $v\_{i}\leftrightarrow v\_{j}$ if and only if $\left|i-j\right|\leq 2$ and $i+j$ is not divisible by 6.

a) Determine the blocks of G.

b) Prove that adding the edge $v\_{0}v\_{3n}$ to G creates a 4-critical graph.