MCS-236 Homework 10

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Definition A graph G is said to be *minimal connected* if G is connected but for any edge e of G, the graph $G - e$ is not connected.

A graph G is said to be *maximal acyclic* if G is acyclic but for any nonadjacent vertices u, v of G, the graph $G + uv$ contains some cycle.

1. Prove that G is a minimal connected graph if and only if G is a tree.
2. Prove that G is a maximal acyclic graph if and only if G is a tree.