

Questions for deep thought on the dictionary of graphs.

1. Determine the complement of the graph $K_{m,n}$ if $m, n \geq 3$.
2. Which cycle graphs are bipartite?
3. Prove or disprove: Every subgraph of the complete graph K_n , $n \geq 3$, contains a cycle.
4. Prove or disprove: Every induced subgraph of a wheel graph W_n , $n \geq 3$, contains a cycle.
5. Prove or disprove: Any induced subgraph of a complete graph is a complete graph.
6. Prove or disprove: Any induced subgraph of a complete bipartite graph is a complete bipartite graph.