DOMINATION IN TOKEN GRAPHS OF GRAPH FAMILIES

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A token graph, $T_k(G)$, has vertex set of k element subsets of $V(G)$ denoted by placing k tokens on $V(G)$ where adjacency is determined if one could slide a single token from one k element subset of $V(G)$ to another. Token graphs are generalizations of the Johnson graph. In this work, we find construction patterns of token graphs showing the sufficient conditions to yield multipartite token graphs as well as the domination bounds. We find domination number bounds for the token graph of paths and cycles using a tiling scheme.