

Domination Criticality

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Abstract

For many graphs parameters, criticality is a fundamental issue. For domination number, Brigham, Chinn, and Dutton began the study of graphs where the domination number decreases on the removal of any vertex. Brigham, Haynes, Henning, and Rall defined the term (γ, k) -critical and proved results for graphs that are $(\gamma, 2)$ -critical or bicritical. A graph G is said to be (γ, k) -critical if $\gamma(G - S) < \gamma(G)$ for any set of k vertices and domination number γ . I will survey the results of the Brigham, et. al. paper and show how many of these results may be extended to the case of a general k . The generalizations are mentioned in a recently submitted paper.