Abstract

A dominating set D of a graph G = (V;E) is non-split dominating set if \( V \cap D \) is connected. The non-split domination number of G is the minimum cardinality of a non-split dominating set in G. Let D be a minimum dominating set in G. If a subset D_0 of V \cap D is dominating in G, then D_0 is called an inverse dominating set with respect to D. Furthermore, if V \cap D_0 is connected, then D_0 is called an inverse non-split dominating set. The inverse non-split domination number of G is the minimum cardinality of an inverse non-split dominating set in G.

In this paper, characterization of non-split dominating sets in the join and corona of two graphs are presented. Furthermore, explicit formulas for determining the non-split and inverse non-split domination numbers of these graphs are also determined.

References

- K. Ameenal Bibi, K. Selvakumar. The inverse split and nonsplit domination in graphs.

**Index Terms**

Computer Science  
Applied Mathematics

**Keywords**

non-split domination  
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join  
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