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## PSEUDO d-ACHROMATIC NUMBER OF A GRAPH

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## Abstract

In this paper we extend the notion of pseudo achromatic number in the context of (k, d)-coloring and introduce the concept of pseudo *d*-achromatic number  $\psi_s^d(G)$ of a graph *G*. We discuss the concepts of edge critical, vertex critical and contraction critical graphs with respect to the pseudo *d*-achromatic number. We obtain a characterization of *k*-edge *d*-critical graphs and determine the pseudo d-achromatic number of cycles and paths. We also obtain bounds on the maximum degree and the number of vertices of a *k*-edge dcritical graph.

Key Words : *Star chromatic number, Pseudo complete d-coloring, Pseudo d-achromatic number.* 2000 AMS Subject Classification : 05C15.

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