South East Asian J. of Mathematics and Mathematical Sciences
Vol. 17, No. 3 (2021), pp. 373-380

ISSN (Online): 2582-0850

ISSN (Print): 0972-7752

CORDIAL LABELING FOR NEW CLASS OF GRAPHS

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(**Received:** *Jan. 09, 2021* **Accepted:** *Sep. 23, 2021* **Published:** *Dec. 30, 2021)*

Abstract: Graph labeling is an assignment of integers to vertices or edges of a graph or both subject to a certain condition. The concept of cordial labeling was introduced by Cahit [3] in 1987. Let f be a function from the vertices of G to $(0, 1)$ and for each edge xy assigns the label $|f(x) - f(y)|$. We call f a cordial labeling of G if the number of vertices labeled 0 and the number of vertices labeled 1 differ at most by 1, and the number of edges labeled 0 and the number of edges labeled 1 differ at most by 1. A graph which admits cordial labeling is called a cordial graph. In this paper, we prove the cordial labeling of a new class of graphs.

Keywords and Phrases: Cordial labeling, tadpole graph, k -polygonal snake graph.

2020 Mathematics Subject Classification: 05C78.

1. Introduction

Graph Theory is a dynamic mathematical discipline that has many applications in wide variety of subjects such as Physics, Chemistry, Operations Research and so on. The first paper in graph theory was written by Euler in 1736 when he solved the Konigsberg Bridge problem. Bondy and Murthy have proved various