

Some Vertex Prime Graph Families And A New Labeling Of Graphs

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A labeling of a graph $G(V,E)$ is a function from edge set (or vertex set) to some subset of integers. The images under the function are the labels of the edges (or vertices). From this putting some condition on labels, the labels of vertices (or edges) are obtained. In vertex prime labeling of a graph [4] we label the edges first with distinct natural numbers from $1,2,3, \dots, |E|$ in a way that for any vertex of degree at least 2, the greatest common divisor of all labels on edges incident with the vertex is 1. We obtain vertex prime labeling of book graph, snakes, kayak paddle, one point unions of cycles, and new graphs such as multi-cycle snake and multi-petals sunflower graphs etc.

We introduce a new type of graph labeling called as L-cordial labeling and show that $K_{1,n}$, path P_n , C_n , $S(C_3,n)$ are families of L-cordial graphs .

Key words: labeling, vertex, degree, graph

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