

e_3 cordiality Of Some Family Of Graphs

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Abstract

Gear graph $G = G_n$ is derived from wheel graph by adding a vertex on every edge of n -cycle of the wheel W_n . G_n has $3n$ edges and $2n + 1$ vertices. We have proved that

1) gear graph is e_3 cordial.

2) one point union of k copies of G is e_3 cordial.(comon point being the central vertex of degree n on each copy of G)

By ek cordial labeling we mean assignment of numbers $0, 1, 2, \dots, k - 1$ to edges of graph G s.t. $|e_i - e_j| \leq 1$; $i \neq j$, and vertex label derived by taking sum modulo k of all edge labels at given vertex, again $|v_i - v_j| \leq 1$; where e_i and v_i represents no of edges with label i and no of vertices with label j .(This definition has appeared in a paper in JCMCMC by Prof.Cahit Ibrahim) We have discussed e_3 cordiality.