Abstract

Here I define a new labeling and a new graph called square difference labeling and the square difference graph. Let G be a (p, q) graph. G is said to be a square difference graph if there exists a bijection f: V(G) → {0, 1, ..., p-1} such that the induced function f*: E(G) → N given by f*(uv) = |f(u)|^2 - |f(v)|^2 for every uv ∈ E(G) are all distinct. A graph which admits square difference labeling is called square difference graph. In this paper I discussed the square difference labeling is admitted for some graphs like cycles, complete graphs, cycle cactus, ladder, lattice grids, wheels, quadrilateral snakes, the graph G = K2 + m K1.

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Index Terms

Computer Science  Applied Mathematics

Keywords

Square Difference Labeling  Square Difference Graph  Cycle Cactus