Abstract

A square difference 3-equitable labeling of a graph \( G \) with vertex set \( V \) is a bijection \( f \) from \( V \) to \( \{1, 2, \ldots, |V|\} \) such that if each edge \( uv \) is assigned the label \(-1\) if \( |f(u)^2 - f(v)^2| = -1 \mod 4 \), the label \(0\) if \( |f(u)^2 - f(v)^2| = 0 \mod 4 \) and the label \(1\) if \( |f(u)^2 - f(v)^2| = 1 \mod 4 \), then the number of edges labeled with \( i \) and the number of edges labelled with \( j \) differ by atmost \( 1 \) for \(-1 = i, j = 1\). If a graph has a square difference 3-equitable labeling, then it is called square difference 3-equitable graph. In this paper, we investigate the square difference 3-equitable labeling behaviour of paths and cycles.

References

3. J. Shiama, Square sum labeling for some middle and total graphs, International Journal of
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Index Terms

Computer Science  Applied Mathematics

Keywords

Square difference 3-equitable labeling, square difference 3-equitable graphs