Abstract

A square difference 3-equitable labeling of a graph $G$ with vertex set $V$ is a bijection $f$ from $V$ to \{1, 2, ..., |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 $i = 1, j = 1$. 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
Computer Applications (0975-8887) Volume 37- No.4 January 2012.


**Index Terms**

Computer Science  
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**Keywords**

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