Square Sum Labeling for Some Middle and Total Graphs

Abstract

A (p, q) graph \( G \) is said to be a square sum graph if there exist a bijection \( f: V(G) \rightarrow \{0, 1, 2, \ldots, p-1\} \) such that the induced function \( f*: E(G) \rightarrow \mathbb{N} \) given by \( f*(u v) = [f*(u)]^2 + [f*(v)]^2 \) for every \( uv \in E(G) \) are all distinct. In this paper the square sum labeling of total graph of path \( P_n \), cycle \( C_n \) and middle graph of path \( P_n \), cycle \( C_n \) are discussed.

References

- Danuta Michalak, On middle and total graphs with coarseness number equal 1, Spinger Verlag Graph Theory, Lagow (1981) proceedings, Berlin heidelberg, New York, Tokyo, pp. 139-150.
- Frank Harrary, Graph theory, Narosa Publishing House- (2001).
- Square sum labeling by K.A.Germina
- D B West, Introduction to Graph Theory, Prentice-Hall, India,2001

Index Terms

Computer Science

Applied Mathematics
Keywords
Middle graph  Total graph  square sum labeling