Abstract

Let $G = (V, E)$ be a connected simple graph. For any non-trivial additive abelian group $A$, let $A^* = A \setminus \{0\}$. A function $f : E(G) \to A^*$ is called a labeling of $G$. Any such labeling induces a map $f^+ : V(G) \to A$, defined by $f^+(v) = \sum_{uv \in E(G)} f(uv)$, where the sum is over all $uv \in E(G)$. If there exist a labeling $f$ whose induced map on $V(G)$ is a constant map, we say that $f$ is an $A$-magic labeling of $G$ and that $G$ is an $A$-magic graph. In this paper we obtained the group magic labeling of cycles with a common vertex, a chain of three cycles and even number of times even cycles in a chain.

References

- C. Shiu, Richard M. Low, "Group magicness of complete $n$-partite graphs."
- K. Kavitha, R. Sattanathan, "Group magic labeling in biregular graphs", IJAM, Volume 23 No. 6, 2010 ISSN 1311-1728, 1103-1116

**Index Terms**

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