

The Integer-magic Spectra of the Cartesian Product of Two Trees

W.C. Shiu and Richard M. Low*, San Jose State University

Let A be a non-trivial, finitely-generated abelian group and $A^* = A \setminus \{0\}$. A graph G is A -magic if there exists an edge labeling of G (using elements of A^*) which induces a constant vertex labeling of G . The integer-magic spectrum of G is the set $\text{IM}(G) = \{k \in \mathbb{N} \mid G \text{ is } \mathbb{Z}_k\text{-magic}\}$, where \mathbb{N} is the set of natural numbers. In this paper, we determine the integer-magic spectra of the Cartesian product of two trees.

Key words: integer-magic labeling, Cartesian product of trees.