

VERTEX-MAGIC TOTAL LABELINGS OF UNION OF NON-ISOMORPHIC SUNS

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ABSTRACT. Let G be a graph with vertex set $V = V(G)$ and edge set $E = E(G)$ and let $e = |E(G)|$ and $v = |V(G)|$. A one-to-one map λ from $V \cup E$ onto the integers $\{1, 2, \dots, v + e\}$ is called *vertex magic total labeling* if there is a constant k so that for every vertex x ,

$$\lambda(x) + \sum \lambda(xy) = k$$

where the sum is over all vertices y adjacent to x . Let us call the sum of labels at vertex x the *weight* $w_\lambda(x)$ of the vertex under labeling λ ; we require $w_\lambda(x) = k$ for all x . The constant k is called the *magic constant* for λ .

In this paper, we present the vertex magic total labeling of disjoint union of m non-isomorphic suns for any $m \geq 3$, proving the conjecture given in [8].

Key words : Vertex magic total labeling, suns.

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