

Super Edge Magic Deficiencies of Various Classes of Graphs

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A graph G with p vertices and q edges is considered to have an *edge-magic total labeling* if there exists some constant μ and a bijection $f : V(G) \cup E(G) \rightarrow \{1, 2, 3, \dots, p + q\}$ such that $f(x) + f(xy) + f(y) = \mu$, where x and y are vertices. Furthermore, the labeling is considered *super edge-magic total* if $f(V(G)) = \{1, 2, 3, \dots, p\}$. The *super edge-magic deficiency* of a graph G , μ_G , is then the minimum nonnegative integer n such that $G \cup nK_1$ has a *super edge-magic* labeling or ∞ if no such integer exists. In this talk, I will discuss my findings regarding the super edge-magic deficiencies of two classes of graphs; wheels and the disjoint union of stars.

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