Further results on super mean graphs

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Abstract

Let G be a graph and $f : V(G) \to \{1, 2, 3, ..., p + q\}$ be an injection. For each edge $e = uv$, the induced edge labeling f^* is defined as follows:

$$f^*(e) = \begin{cases} \dfrac{f(u) + f(v)}{2} & \text{if } f(u) + f(v) \text{ is even.} \\ \dfrac{f(u) + f(v) + 1}{2} & \text{if } f(u) + f(v) \text{ is odd.} \end{cases}$$

Then f is called super mean labeling if $f(V(G)) \cup \{f^*(e) : e \in E(G)\} = \{1, 2, 3, \ldots, p + q\}$. A graph that admits a super mean labeling is called super mean graph. In this paper we study the super meanness of subdivision graph of $K_{1,3,}$ super meanness of $P_{\tau,4,}$ super meanness of some caterpillars and super meanness of some duplicate graphs.

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