

On Square Graceful Deficiencies of Cycles

C. C. Chen, Z. B. Gao, Sin-Min Lee*

34803 Hollyhock Street, Union City, CA 94587
sinminlee@gmail.com

A (p, q) -graph $G(V, E)$ is said to be a square graceful graph if there exists an injection $f: V(G) \rightarrow \{0, 1, \dots, q^2\}$ such that the induced mapping $f^*: E(G) \rightarrow \{1, 4, 9, \dots\}$ defined by $f^*(uv) = |f(u)f(v)|$ is a bijection of $\{1^2, 2^2, 3^2, \dots, q^2\}$. The function f is called a square labeling of G . A new parameter called star square graceful deficiency number of a graph is defined by Murugam recently, and the star square graceful deficiency number s of some cycles is determined.