

ON THE SIGNED (TOTAL) k -INDEPENDENCE NUMBER IN GRAPHS

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Abstract

Let G be a graph. A function $f : V(G) \rightarrow \{-1, 1\}$ is a signed k -independence function if the sum of its function values over any closed neighborhood is at most $k - 1$, where $k \geq 2$. The signed k -independence number of G is the maximum weight of a signed k -independence function of G . Similarly, the signed total k -independence number of G is the maximum weight of a signed total k -independence function of G . In this paper, we present new bounds on these two parameters which improve some existing bounds.

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