Generalized Chromatic Sums
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Given two graph $H$ and $G$, a $\neg H$-coloring of $G$ is a coloring of the vertices of $G$ such that no color class contains a subgraph isomorphic to $H$. A proper coloring of $G$ is a $\neg K_2$-coloring. The chromatic sum of a graph $G$ is the minimum value achieved by summing the vertex colors of each proper coloring of $G$. We introduce a new parameter, the generalized chromatic sum of a graph, which combines these two concepts: given two graphs $H$ and $G$, the $\neg H$-chromatic sum of $G$ is the minimum value achieved by summing the vertex colors of each $\neg H$-coloring of $G$.

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