Group irregular labelling of disconnected graphs without small stars

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We investigate the group irregular strength $(s_g(G))$ of graphs, i.e the smallest value of s such that for any Abelian group Γ of order s exists a function $g: E(G) \to \Gamma$ such that sums of edge labels at every vertex is distinct. We give results for bound and exact values of $(s_g(G))$ for some chosen families of graphs.

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