

1035-05-939

John P. Georges, David Mauro and Yan Wang* (yan.wang@trincoll.edu), Department of Mathematics, Trinity College, 300 Summit Street, Hartford, CT 06106. *Some results on λ_x -invertible graphs.*

Recent results in the study of distance-constrained graph labelings have led to the consideration of λ_x -labelings. For graph G and non-negative real number x , $\lambda_x(G)$ is the minimum span of vertex labelings of G satisfying the conditions that labels of adjacent vertices differ by at least x and labels of vertices distance two apart differ by at least one. In this paper we introduce the notion of λ_x -invertible graphs: for $x > 0$, G is said to be λ_x -invertible if and only if $\lambda_x(G) = \lambda_{1/x}(G^c)$. We investigate the properties of λ_x -invertible graphs and identify several classes of graphs with λ -invertibility. (Received September 17, 2007)