962-05-1195

Patricia Nelson (pnelson@math.unl.edu), Department of Mathematics and Statistics, University of Nebraska-Lincoln. *Minimum Independence Number of Graphs with Specified Degree Sequence*. Preliminary report.

For a finite simple graph G, $\alpha(G)$ denotes the independence number of G and d(G) denotes the degree sequence of G. We present functions f such that $\alpha(G) \geq f(d(G))$ and define $\alpha(d) = \min\{\alpha(G) : d(G) = d\}$. We show that, for semi-regular graphic sequences d, $\alpha(d)$ is explicitly computable. We give partial results for graphic sequences of other forms, namely those for which complete bipartite realizations exist.

(Received October 02, 2000)