1030-05-416
A. Brieden, Universität der Bundeswehr München, Z. Füredi, University of Illinois, Urbana-Champaign &, Renyi Institute of Mathematics, A. Kündgen, Cal State San Marcos, and R. Ramamurthi*, Department of Mathematics, Cal State San Marcos, 333 S Twin Oaks Valley Road, San Marcos, CA 92069. (α, k)-balanced graphs.

A graph is called (α, k) -balanced if the subgraph, H, induced by any k vertices has independence number $\alpha(H) = \alpha$. We investigate the maximum number of vertices in an (α, k) -balanced graph for fixed α, k . We show, for example, that the maximum order of an $(\alpha, 2\alpha)$ -balanced graph is $2\alpha + 2$ when $\alpha \ge 4$ and we describe all graphs of maximum order when $\alpha = 2, 3$. (Received August 07, 2007)