

1116-VF-2894 **Daniel Johnston*** (daniel1.johnston@umontana.edu). *On k -Ramsey Numbers of Non-bipartite Graphs.*

In a red-blue coloring of a graph G , every edge of G is colored red or blue. For two graphs F and H and an integer k with $2 \leq k \leq R(F, H)$, where $R(F, H)$ is the Ramsey number of F and H , the k -Ramsey number $R_k(F, H)$ of F and H is the smallest order of a balanced complete k -partite graph G such that every red-blue coloring of G results in a red F or a blue H . When F and H are bipartite, $R_k(F, H)$ is known to exist for each such integer k . When F and H are not bipartite that is not the case. We look at some of these results. (Received September 22, 2015)