

**Meeting:** 999, Nashville, Tennessee, SS 14A, Special Session on Graph Theory and Matroid Theory

999-05-204      **Andras Gyarfás** (gyarfás@sztaki.hu), P. O. Box 63, 1518, Budapest, Hungary, **Jeno Lehel\*** (jlehel@memphis.edu), Department of Mathematical Sciences, The University of Memphis, Memphis, TN 38152, and **Richard H. Schelp** (schelpr@msci.memphis.edu), Department of Mathematical Sciences, The University of Memphis, Memphis, TN 38152. *Finding a monochromatic subgraph or a rainbow path.*

Let  $f(G, H)$  denote the least integer  $n$  such that every coloring of the edges of a clique  $K_n$  contains either a monochromatic copy of the graph  $G$  or a rainbow colored copy of the graph  $H$ . Here we investigate how  $f$  relates to the usual Ramsey and the local Ramsey numbers for particular cases of  $G$  or  $H$ . We show that for the paths  $P_k, k = 4, 5$ ,  $f(G, P_k)$  equals the  $(k - 2)$ -color diagonal Ramsey number of  $G$ . (Received August 23, 2004)