1116-05-1473 **Matthew S Brennan*** (brennanm@mit.edu), 450 Memorial Drive, Apt. H416, Cambridge, MA 02139. *Ramsey numbers of trees and unicyclic graphs versus odd cycles and fans.*

The generalized Ramsey number $R(H,K)$ is the smallest positive integer n such that for any graph G with n vertices either G contains H as a subgraph or its complement $\overline{G}$ contains K as a subgraph. Burr, Erdős, Faudree, Rousseau and Schelp initiated the study of Ramsey numbers of trees versus odd cycles, proving that $R(T_n, C_m) = 2n - 1$ for all odd $m \geq 3$ and $n \geq 756m^{10}$, where T_n is a tree with n vertices and C_m is an odd cycle of length m. They proposed to study the minimum positive integer $n_0(m)$ such that this result holds for all $n \geq n_0(m)$, as a function of m. We prove that $R(T_n, C_m) = 2n - 1$ for all odd $m \geq 3$ and $n \geq 64m$. Combining this with a result of Faudree, Lawrence, Parsons and Schelp yields $n_0(m)$ is bounded between two linear functions, thus identifying $n_0(m)$ up to a constant factor. We also prove a conjecture of Zhang, Broersma and Chen for $m \geq 9$ that $R(T_n, F_m) = 2n - 1$ for all $n \geq m^2 - m + 1$ where F_m denotes a fan on $2m + 1$ vertices consisting of m triangles sharing a common vertex. We extend this result from trees to unicyclic graphs UC_n, which are connected graphs with n vertices and a single cycle. (Received September 20, 2015)