1046-03-1677 **Matthew A Jura*** (jura@math.uconn.edu), 15 Baxter Rd, Mansfield, CT 06268. *Reverse Mathematics of Theorems Involving the Coloring Number of Graphs.*

We use reverse mathematics to analyze the proof theoretic strength of theorems that involve the notion of the coloring number of graphs. The coloring number $\mathrm{Col}(G)$ of a countable graph G is the least $k \leq \omega$ such that there is a well ordering of G for which each node $g \in G$ has at most k many predecessors connected to g by an edge. (Received September 16, 2008)