1043-05-175Michael D Barrus* (mbarrus2@illinois.edu), Department of Mathematics, 1409 W. GreenStreet, Urbana, IL 61801. Canonical decomposition of graphs and antimagic labeling.

An antimagic labeling of a connected graph with m edges is an injective assignment of labels from $\{1, ..., m\}$ to the edges such that for no two vertices are the sums of incident labels the same. A conjecture of Ringel states that every connected graph other than K_2 has an antimagic labeling. We show this to be true for the classes of split graphs and graphs decomposable under the canonical decomposition introduced by Tyshkevich and Chernyak. (Received August 26, 2008)