1046-05-997 Nora Youngs* (nyoungs@email.smith.edu), Smith College, Department of Mathematics and Statistics, Northampton, MA 01063, and Carolyn Gardner, Marissa Neal, Yoshi Merrybird and Agnieszka Rec. Coloring Graphs. Preliminary report.
Two colorings of a graph, G, are isomorphic if by permuting the colors in one of them, we can obtain the other. The set of nonisomorphic colorings of G is the set of isomorphism classes of proper colorings. Define the graph of nonisomorphic colorings of $G, I(G)$, to have vertex set equal the set of nonisomorphic colorings of $G$, with an edge between two colorings if they are isomorphic on $V(G-x)$ for some $x$ in $V(G)$. Similarly, define the graph of canonical colorings of $G, C a n(G)$ on the same set of vertices, but with an edge between two colorings if they are identical on $\mathrm{V}(\mathrm{G}-\mathrm{x})$. In this talk we explore properties of $\mathrm{I}(\mathrm{G})$ and $\operatorname{Can}(\mathrm{G})$. (Received September 13, 2008)

