1060-20-171   **Susan Hermiller*** (`smh@math.unl.edu`), Department of Mathematics, University of Nebraska, Lincoln, NE 68588-0130. *Rewriting systems and geometry of groups.* Preliminary report.

In addition to solving the word problem, a finite complete rewriting system for a group implies certain geometric properties of the Cayley complex for the group. This can be used to show that the geometry of the group restricts the potential orderings to consider when searching for a rewriting system. (Received March 29, 2010)

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