1062-13-244 **Harm Derksen*** (hderksen@umich.edu), Department of Mathematics, 530 Church St, Ann Arbor, MI 48109-1043, and **Gregor Kemper**. *Algorithms for Invariants of Unipotent Groups.*

There are various algorithms for finding generators of invariant rings of (linearly) reductive groups. For non-reductive groups, invariant rings may not even be finitely generated. Nagata proved that an invariant ring can be viewed as the ring of regular functions on a quasi-affine variety, even if the ring of invariants is not finitely generated. An algorithm will be presented for constructing such an affine variety if the group is a unipotent group and the ring on which it acts is a finitely generated factorial domain (for example, a polynomial ring). (Received August 10, 2010)