1009-05-25 **Gary Gordon** (`gordong@lafayette.edu`), Department of Mathematics, Lafayette College, Easton, PA 18042, and **Elizabeth McMahon*** (`mcmahone@lafayette.edu`), Department of Mathematics, Lafayette College, Easton, PA 18042. *A characteristic polynomial for rooted graphs and rooted digraphs.*

The one-variable greedoid characteristic polynomial $p(G; \lambda)$ is obtained fromf the greedoid Tutte polynomial and generalizes the matroid characteristic polynomial. When G is a rooted digraph, we show that this polynomial is completely determined by the number of sinks in G. When G is a rooted graph, we give combinatorial interpretations of several coefficients and the degree of $p(G; \lambda)$. (Received June 21, 2005)