962-65-1242 Constantine Georgakis* (cgeorgak@math.depaul.edu), Department of Mathematics, DePaul University, Chicago, IL 6o614. On the Quadratic Convergence of Heron's Recursion for Roots. Preliminary report.

An elementary derivation of the quadratic convergence, the stopping rule and the selection of the initial value for Heron's recursive algorithm for finding the root of a positive real number is presented that is based on a simple polynomial identity and avoids entirely the use of differential calculus. (Received October 03, 2000)