## 1056-R5-252

Laurene V. Fausett\* (Laurene\_Fausett@TAMU-Commerce.edu), Department of Mathematics, Texas A&M University-Commerce, Commerce, TX 75429-3011. Using Computer Graphics as an Aid to Visualizing Functions of a Complex Variable.

Many aspects of the study of complex variables can be illustrated using simple Matlab scripts and Mathematic notebooks. The use of simple programs for graphing complex functions, ranging from basic analytic functions to conformal mappings and Schwarz-Christoffel transformations, will be discussed. In addition, several example of the use of plots of the modulus of f(z) will be given. These help students see what it means for a function to satisfy the conditions needed for using complex contour integration to find improper integrals on the real line. All of the programs discussed allow the user to experiment with changing parameter values, which improves visualization of the functions being studied. (Received August 19, 2009)