

1135-97-1210 **Tim Flood*** (tflood@pittstate.edu), Mathematics Department, Pittsburg State University,
1701 S Broadway, Pittsburg, KS 66762. *Using GeoGebra to Visualize and Investigate Complex
Valued Functions of a Complex Variable.*

Students are very well versed at visualizing real valued functions of a real variable. They are adept at producing graphs and determining a variety of characteristics of functions by analyzing the properties of the graphs of the functions. Since complex valued functions of a complex variable map the plane to the plane, it is much more difficult to visualize these functions and to investigate the characteristics of the function. Properties such as one-to-one, onto, and continuity are difficult, if not impossible, to visualize without the use of some type of technology. A very simple GeoGebra worksheet can be used for students to visualize and explore complex valued functions of a complex variable. The basics of creating the worksheet, along with demonstrations of its use in investigating the properties of complex functions will be presented. (Received September 20, 2017)