Meeting: 1003, Atlanta, Georgia, MAA CP B1, MAA Session on My Favorite Demo: Innovative Strategies for Mathematics Instructors, I

Michael L. Berry* (berry@wvwc.edu), 59 College Avenue, Buckhannon, WV 26201. The Power of Power Series.

Some of the most difficult concepts for calculus students to visualize are those involving power series; especially the convergence of power series, intervals of convergence and what is meant by the power series representation of a function. All textbooks and supplements contain static and very limited illustrations of these concepts. However, most students do not find these illustrations useful for visualization. For the past ten years, I have been using computer algebra sysyems, particularly Mathcad for active illustrations of these concepts. I will show some of the examples I have used in calculus classes. (Received July 26, 2004)