

1014-N1-1453 **Susan A McBurney*** (SMcBurney@prodigy.net), 211 Rugeley Road, Western Springs, IL
60558. *A Collection of Curves.*

This paper demonstrates a variety of techniques and a collection of curves to encourage exploration by math enthusiasts who wish to express the beauty of mathematics as well as by artists who may want to investigate a new form of expression. The paper shows examples in three categories of techniques generated by two programs—Logo and Geometers Sketchpad. Logo designs: Figures with curved sides are shown in a series. Three to eight-sided designs are rotated 4, 6, 8, 10, 12, and 14 times to produce a chart showing a logical and attractive family of figures. Meanders: S-curves are explored varying one parameter. A collection of circular four-pointed designs shows the variety within just one small selection. ted figures: A simple Logo ellipse command draws a pleasing ribbon-like design. Additional programs show three increasingly more elaborate designs with detailed instructions. Development is presented in a logical and modular manner to emphasize a desirable method of exploration. In the process the creative user can generate complex designs of interest both for their mathematical foundation and their intrinsic beauty. (Received September 28, 2005)