MAT 331, Fall 2002

Project 3: Fractals

Due Wednesay, December 11

In this project, you are asked to define a fractal of your choice whose box-counting dimension is $\log 5 / \log 4$. Describe clearly how you construct such a set and **prove** that its dimension is the requested number. Also, plot the first 6 approximating curves to the fractal, using either a TurtleCmd procedure or IFS (see `http://www.math.sunysb.edu/~mat331/Worksheets/IFS.mws`).

As always, pay attention to clarity of exposition; and describe what you do at each step from a mathematical viewpoint, not as a commentary on how to use Maple. In your proof you can use the results we proved in class.

Bonus: Do the same thing for a fractal of box dimension $\log 7 / \log 4$.