Dynamical Systems
Homework Eleven
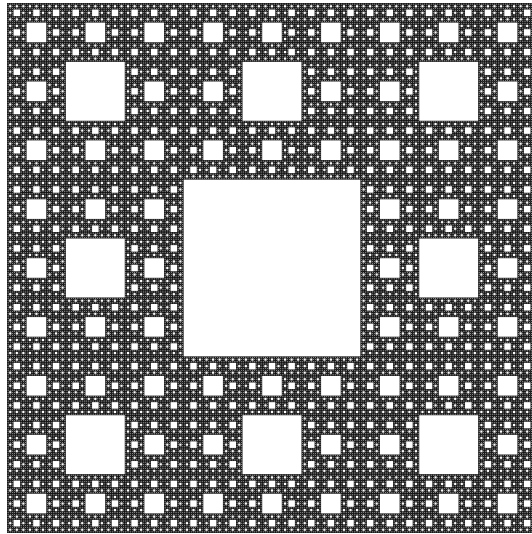### Due February 28, 2013

Figure 1: The Sierpiński carpet. Figure source: `http://en.wikipedia.org/wiki/File:` `Sierpinski_carpet.png`.
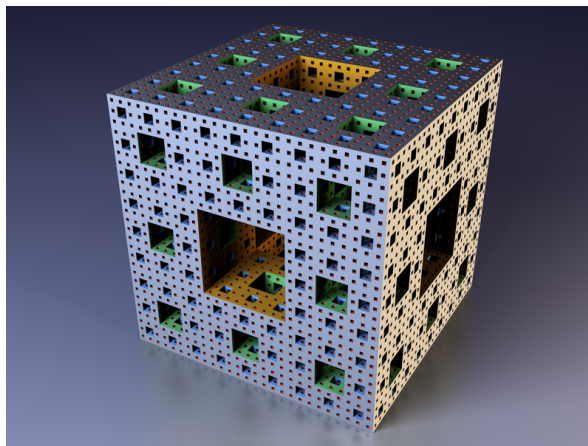

Figure 2: The Menger sponge. Figure source: `http://en.wikipedia.org/wiki/File:` `Menger-Schwamm-farbig.png`.

Dimensions

1. Determine the self-similarity dimension of the fractals in Figs. 1–3.

2. Determine the box-counting dimension for the fractal in Fig. 4. To do so, imagine a series of boxes, each one third the size of the previous.
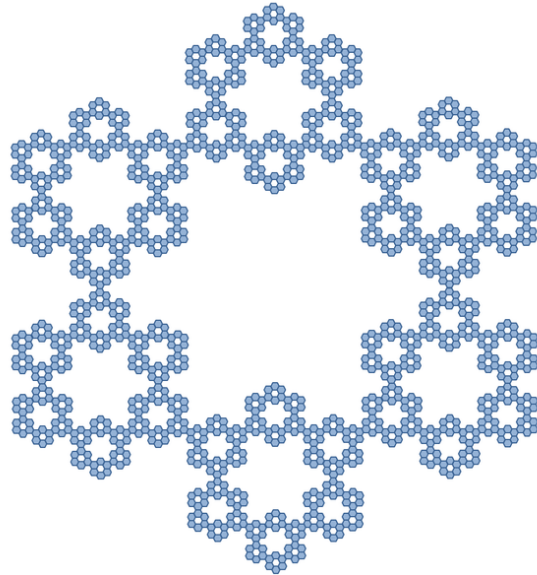
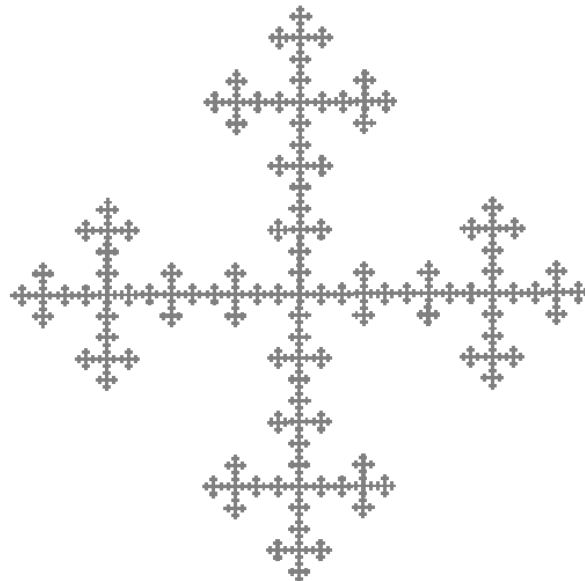Figure 3: The Sierpiński hexagon. Figure source: `http://en.wikipedia.org/wiki/File:Sierpinski_hexagon.png`.

Figure 4: The Sierpiński hexagon. Figure source: `http://en.wikipedia.org/wiki/File:Box_fractal.png`.