21. \textit{(expires 11/22)} [No Maple] Compute the box counting dimension of the fractal in the figure below:

![Fractal Image]

22. \textit{(expires 11/22)} Suppose that a turtle is moving with constant velocity 1 unit/sec. The turtle is told, every second, to steer right by an amount equal to $t^2$ degrees, where $t$ is the time (in secs). (For example, after the first step, it turns right 1 degree, then after the second, turn right by 4 degrees, and so on.) Draw the curve the turtle describes after 10 and after 100 seconds.

23. \textit{(expires 11/22)} Consider the recursively defined sequence

$$S_n = S_{n-1}^2 - 4S_{n-1} + 6$$

for $n \geq 1$, with $S_0 = 5$. Implement this in Maple using both a recursive and a non-recursive procedure. [Hint for the computation of the non-recursive formula: complete the square.]

Bonus: rewrite the recursive procedure adding \texttt{option remember} and see the difference in terms of computational speed.

24. \textit{(expires 11/22)} By using only \texttt{TurtleCmd}, draw a random walk of $n$ steps. (In a random walk the turtle takes a step forward, backwards, to the right, to the left, with equal probabilities, and then repeats the process.) [Check \texttt{rand}.]