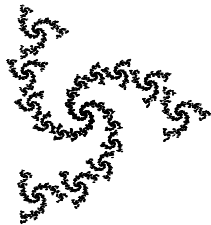


Second homework set

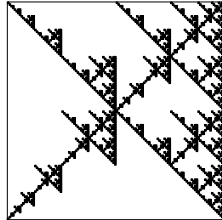
Due at the beginning of class on Thursday, Sept 24. No late homework will be accepted.

Fold your homework paper vertically and PRINT your name on the outside.

1. Find IFS rules for this fractal. Measure the pieces to find the scaling factors (use the cm scale). Hints: angles are multiples of 5° , that is, 5° , 10° , 15° , etc; scaling factors are multiples of 0.05, that is, 0.05, 0.1, 0.15, etc.



2. Draw the transition graph for this IFS with memory image. Explain how you arrived at your answer. Your explanation should include a list of forbidden length 2 addresses, and a list of allowed pair transitions (e.g., $1 \rightarrow 2$).



3. Draw the transition graph for this IFS with memory image. Show it can be generated by an IFS without memory. Your reason should include a list of forbidden length 2 addresses, a list of allowed pair transitions, a list of romes, and explicit demonstration of the conditions. How many transformations are needed for this IFS without memory? Explain how you arrived at your answer.

