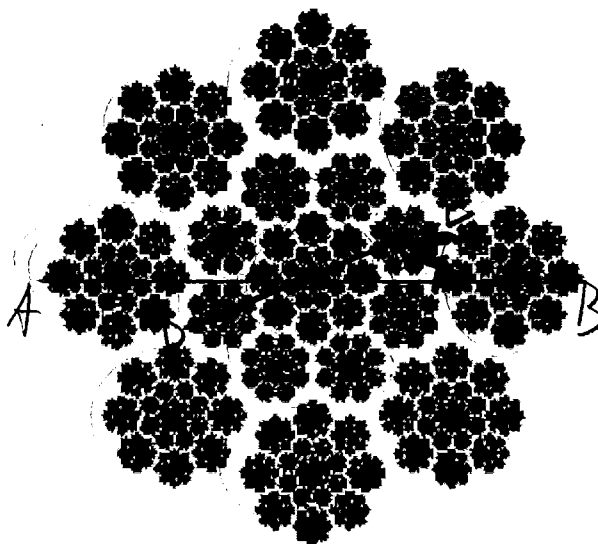# Queen Anne's Lace IFS

Decompose the Queen Anne's Lace into eight little florets around the perimeter, and one larger floret in the middle.

Note the middle floret is rotated relative to the whole shape.

Can you find which rule corresponds to each of the black florets?

$AB = 7$

$CB = 1.9$

small: $r = s = \dfrac{1.9}{7} = .27$

$DE = 3.5$

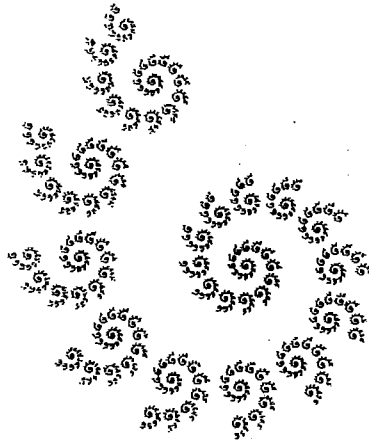large $r = s = \dfrac{3.5}{7} = .5$

$\theta = \varphi = 22.5$

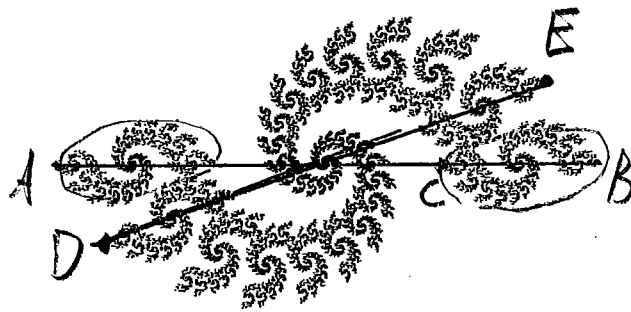| r	s	θ	φ	e	f
0.270	0.270	0.000	0.000	1.000	0.000
0.270	0.270	0.000	0.000	0.707	0.707
0.270	0.270	0.000	0.000	0.000	1.000
0.270	0.270	0.000	0.000	-0.707	0.707
0.270	0.270	0.000	0.000	-1.000	0.000
0.270	0.270	0.000	0.000	-0.707	-0.707
0.270	0.270	0.000	0.000	0.000	-1.000
0.270	0.270	0.000	0.000	0.707	-0.707
0.500	0.500	22.50	22.50	0.000	0.000

Return to Natural Fractal Inverse Problems.

Spiral Fractals from IFS

r	s	θ	φ	e	f

r	s	θ	φ	e	f

$AB = 7.3$

$CB = 2.2$

small $r = S = \dfrac{2.2}{7.3} = .3$

$DE = 6.2$

large $r = S = \dfrac{6.2}{7.3}$

$\theta = \varphi = 20 \quad = .85$

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