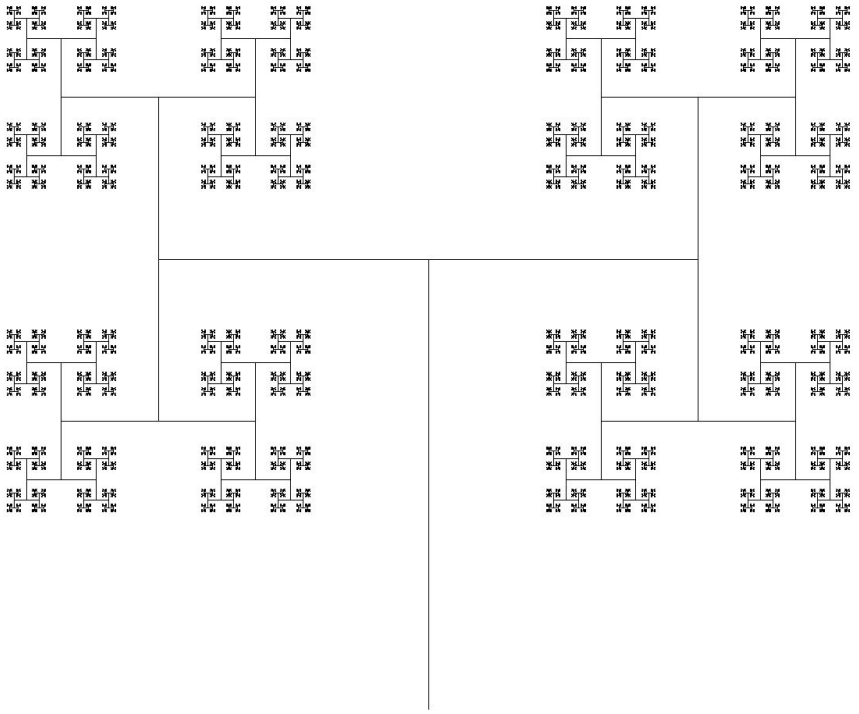
3.

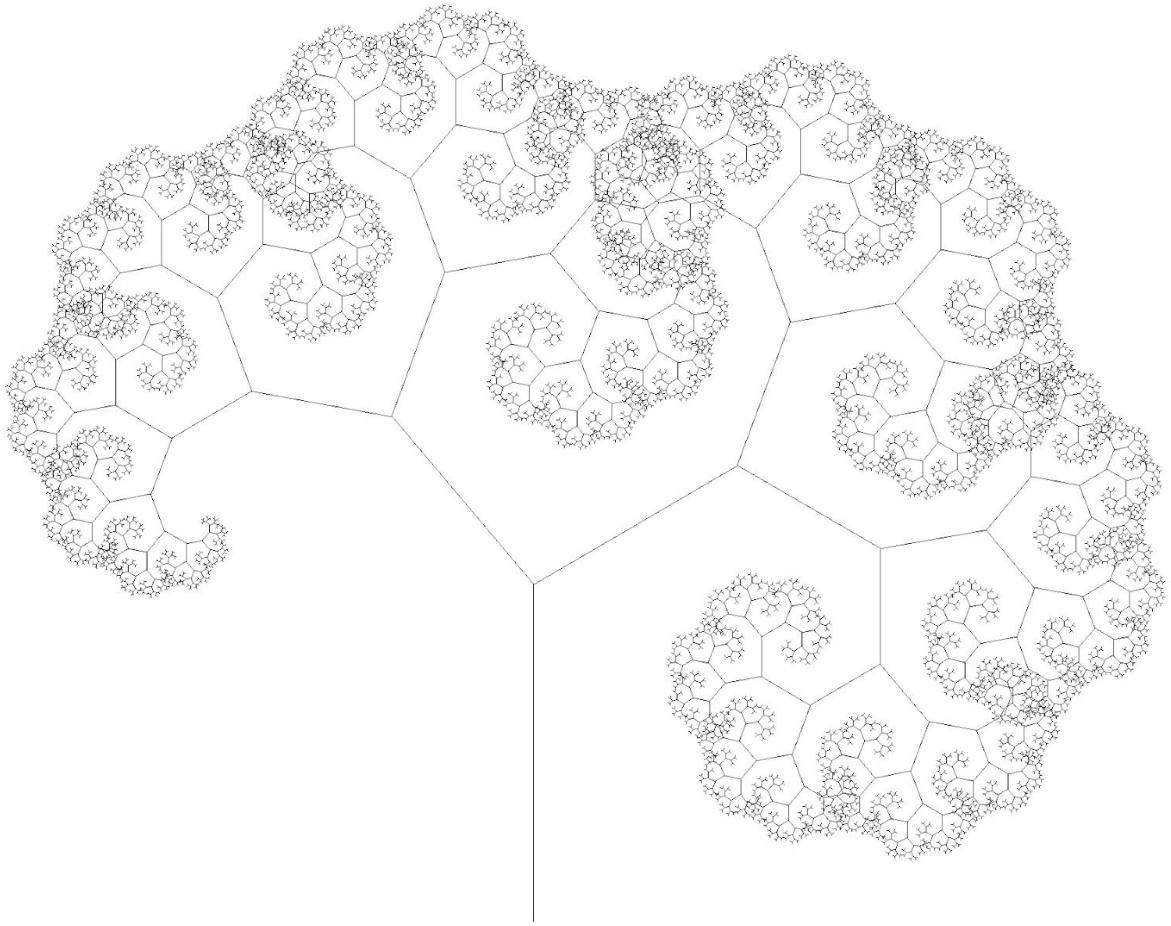
A.



B.

Playing around with the ratio made it clear that as the ratio became smaller, the tree took up less space. With this, I would expect its fractal dimension to go down as well (by any metric: capacity, correlation, or otherwise). As the ratio increased, the tree got denser and denser up to the $\frac{1}{\sqrt{2}}$ point thus raising the fractal dimension to its limit, at which time the tree would begin to start to cross over itself. After this point, the tree was not very interesting, as any structure was obscured by crossover segments.

C.



This is the tree with the specs listed: Arms 60° and 40°, with ratios .7 and .65.

4.

I hope you enjoy as much as I did:

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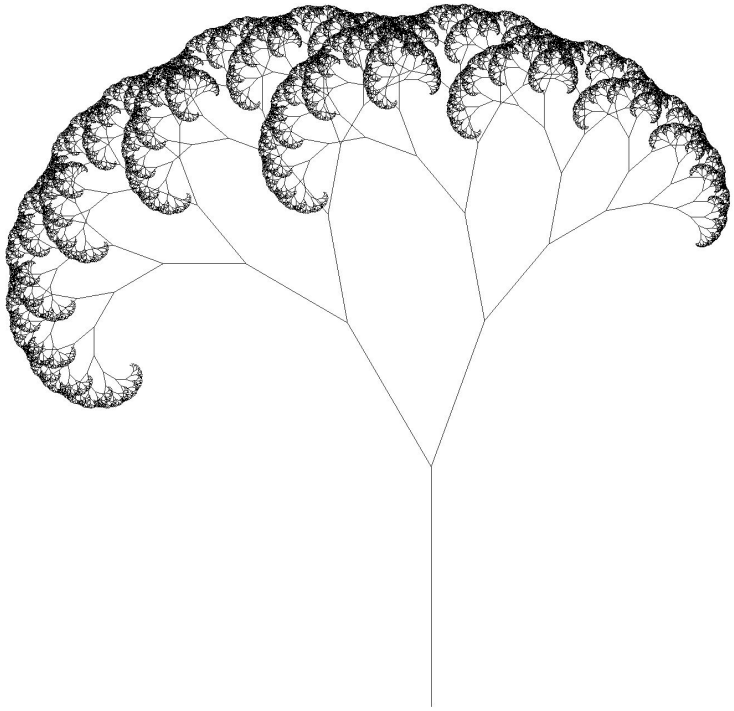

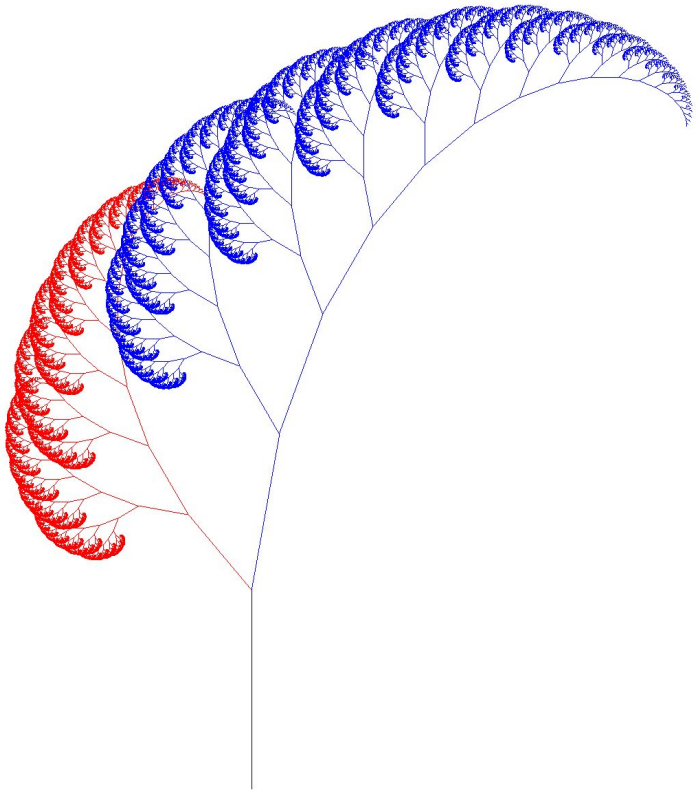

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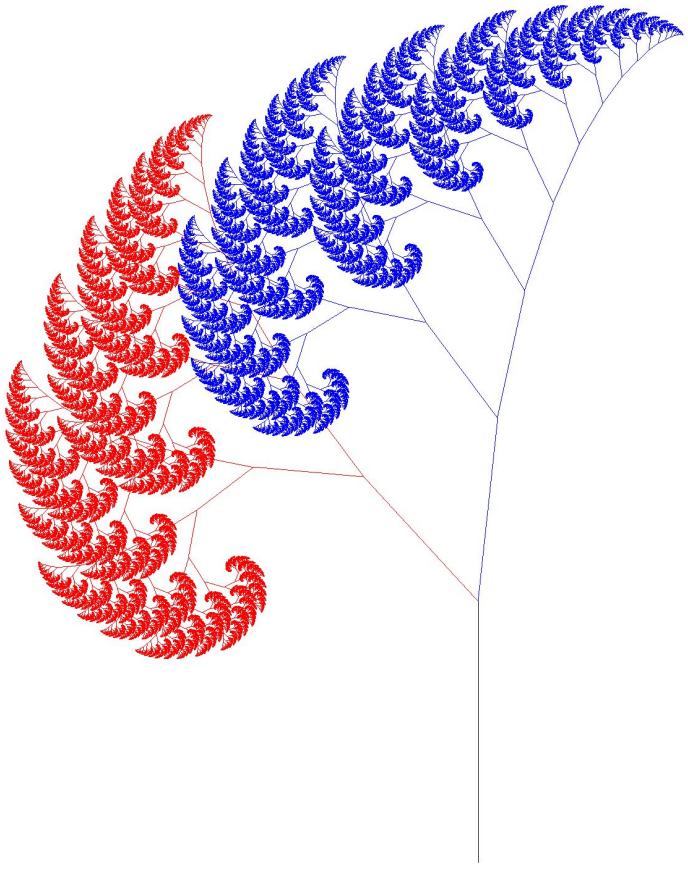

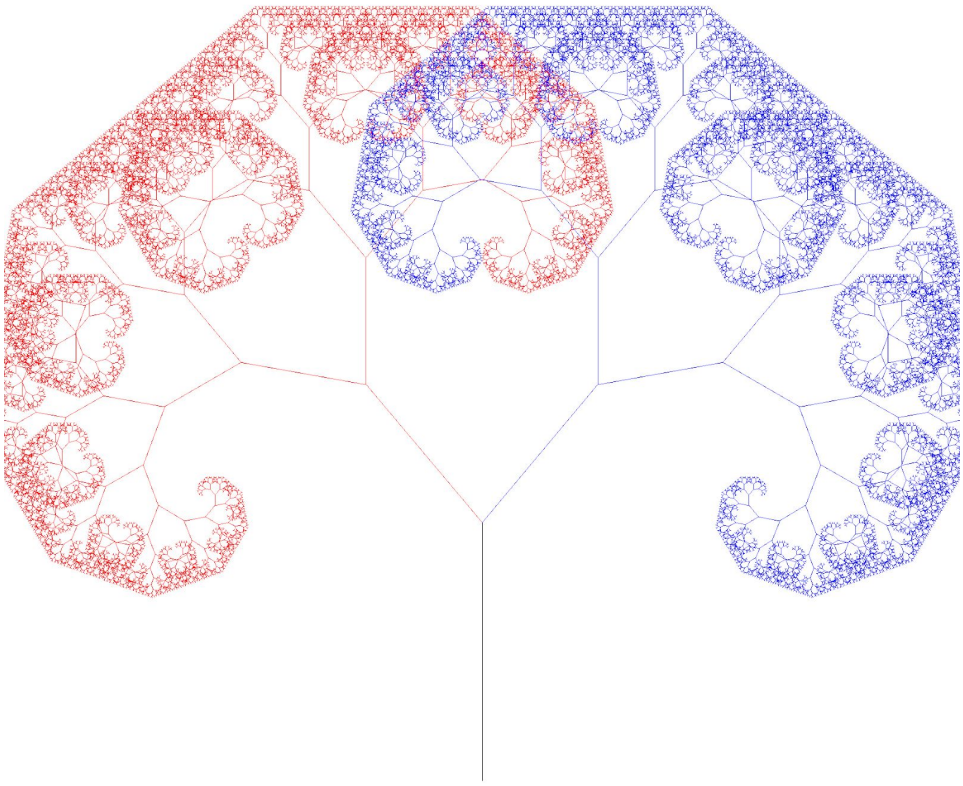

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