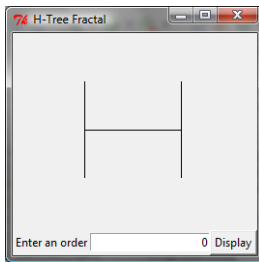
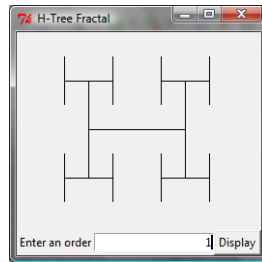


Please write a program to display H-tree fractal described as follows:

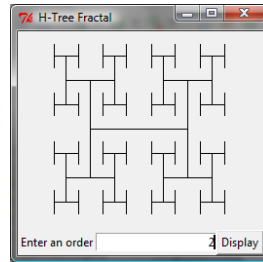
1. Begin with a letter H. The three lines of the H are of the same length, as shown in Figure a.
2. The letter H (in its sans-serif form, H) has four endpoints. Draw an H centered at each of the four endpoints to an H-tree of order 1, as shown in Figure b. These H's are half the size of the H that contains the four endpoints.
3. Repeat step 2 to create a H-tree of order 2, 3, ..., and so on, as shown in Figure c-d.



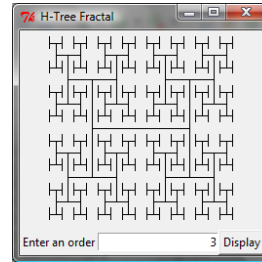
(a)



(b)



(c)



(d)

The H-tree is used in VLSI design as a clock distribution network for routing timing signals to all parts of a chip with equal propagation delays. Write a Python program that draws an H-tree, as shown in the figure.