**Fractals: The Hidden Dimension** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Use what you learn while watching Nova’s “Fractals, the Hidden Dimension” to answer the following questions. Feel free to answer the questions while you’re watching.

1. What is a fractal?
2. Who invented the concept of fractals (note: correct spelling **does not matter**)?
3. How are fractals different from classical geometric shapes?
4. List **eight** places where fractal are used/show up:

a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ e. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ h. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Draw **three more levels** of Cantor's 1883 "monsters" to the two levels seen below:
2. What would result in a longer distance: measuring Lake Michigan with a yard stick or measuring it with a foot-long ruler?
3. **Optional:** In the space below, draw a bunch of fractal trees to create a fractal forest.