1. In class we discussed how the Web has a “fractal structure”. Explain what this means in your own words in a few sentences.

2. Suppose you have a mouse that weighs 20 grams and an elephant that weighs 4,000 kilograms. What is the ratio of the elephant’s metabolic rate to the mouse’s metabolic rate, according to (a) the Surface Hypothesis and (b) Kleiber’s law?

3. In Chapter 17, the book quotes West, Brown and Enquist as saying “Fractal geometry has literally given life an added dimension.” Explain what this means in your own words in a few sentences.

4. Consider the “three mysteries of genetics and evolution” described on p. 277 (bottom) and 278 (top). Write in your own words, in a few paragraphs, evo-devo’s proposed solutions to these mysteries.

5. The picture below shows a particular random Boolean network in a particular initial state. Draw a picture of the state of this network at the next time step.