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Q1. -- What is a good working definition of what a System is and perhaps what it is not?

A system is where the main function is to distinguish the actions that are happening within itself. A system usually consists of multiple elements that have relationships with each other and work together as a whole. Only one thing is not considered as a system.

Q2. -- For the 4 system definitions you were to look up please give in your own words what they mean and give an example of them for each case.

Modularity: is a characteristic that defines how easily a system's components or modules may be rearranged instead of replace (space station idea)

Decomposability: to become broken down into components to the point that can't break down any longer.

Emergence refers to collective phenomena or behaviors in complex adaptive systems that are not present in their individual parts.

Chaos Theory: the study of what appears to be random or unpredictable behavior in dynamic systems and can result in a wide-range outcome. Elements that can initiate multiple outcomes within various big systems.

Q3 -- Give us your definition of what Tessellation means and give an example you encountered, not mentioned in the reading.

Tessellation covers a plane with geometric shapes without any gaps or overlaps, usually just working one way and there's not much flexibility to change the pattern. Ex: a beehive

Q4 -- What is The difference between ideas of Modularity and Tessellation? What are the properties that are in opposition with each other?

They both do with rearranging but modularity will have more flexibility and be more interchangeable.

Q5 -- What is the difference between designing something that has Complexity (aperiodic) vs being Uniform (periodic)

Periodic things are perfect things that can tile together forever while aperiodic things seem to be perfect but somehow will suddenly have some change and can not tile forever and it's quite unpredictable.