Before reading the Denning articles (on your honor)**,** answer the following questions;

1. **When you hear the term** *computer science***, what comes to mind?**

Programming/writing code, artificial intelligence, and flashbacks from UCode coding classes when I was in middle school.

2. **When older relatives or friends hear the term** *computer science***, what do you think comes to** *their* **minds?**

Depending on how much older or what they hear on the news, answers vary. Some older friends or relatives of mine would likely first think of how scary artificial intelligence is and how it's going to steal away everyone's jobs and make everything impersonal and dystopian. Others would likely think of programming, writing code, working with computers and electronic devices, etc (similar to what I think of).

3. **When younger relatives or friends hear the term** *computer science***, what do you think comes to their minds?**

I feel like younger kids love video games; when I was younger, all I could think of was making my own mods for Minecraft, and I know my friends younger siblings are or at least were the same way.

Before reading the Janovy chapter (on your honor), answer the following questions;

1. **When you hear the term** *biology***, what comes to mind?**

The science of life; studying anything that comprises or involves the living, processes of the living, or surroundings of the living.

2. **Do you consider yourself a** *biologist***? why or why not?**

I was just thinking about this the other day… I don't know whether I do or not. On one hand, I'm secretary of Tri-Beta, and I'm involved in the biology department/community here at LMU, and I conduct research that involves biology (but it's technically biochemistry). On the other hand, I feel like I am not ready to go out into the world to change the field of biology; maybe it's because I don't have my degree yet, or maybe it's because I'm pre-med and not pre-grad school.

After reading the Denning articles and the Janovy chapter, answer the following questions:

1. **What was the purpose of these readings?**

All pieces discuss the difference between learning about versus doing and doing versus being. While the verbiage between Denning and Janovy is slightly different, both point out that there is a meaningful change somewhere in the middle where a person becomes a true practitioner of their profession. This shift doesn't necessarily come about when awarded a degree or other recognition of completion of a set of requirements but is more of a mental shift or a choice that each person makes. These readings, at least for me, made me think about my education up to this point, and think about how grateful I am to have had so many classes that were not just lectures, but allowed us to take part in biology or chemistry hands-on, through research, projects, or other means.

Further, these readings provided different perspectives on the "before" questions that we were asked to think about, and may even have us change our answers if we were asked again. Most notably, these pieces address and dispel "myths" of computer science,

computing, and biology as fields of study, and serve to broaden our view of the topics, especially if we are unfamiliar with them (like myself with computer science).

2. **Which of the voices in the *Voices of Computing* article seem to appeal to you the most?**

The Mathematician appealed to me the most because I never really associated mathematicians with computer science. Though, I suppose I knew about the math required for "computation," and that computation is part of computer science. Overall, reading about The Mathematician made me think about how I think about computer science as a discipline and how many kinds of skills are involved.

3. **Apply one of the seven principles from the *Computing is a Natural Science* article to something as "non-computer-science"-y as possible, either from other subjects or your daily life.**

Hierarchical Aggregation (Design) could easily be applied to many non-computer science-y things. Taxonomic ranking matches the description "Larger entities are composed

of many smaller ones" as, for example, the domains (larger entity), is composed of multiple kingdoms, which are composed of multiple phyla, and so on, climbing down to smaller entities.

4. **What did you find most interesting or provocative about the Janovy reading?**

I thought that it was interesting that Janovy suggests that becoming a biologist can open up doors to a whole new way of viewing the world, and that most if not all biologists tend to see things in the same or similar ways, just due to their field of study.

5. **What does it mean to *be* a biologist? Do you consider yourself a biologist? Why or why not?**

Janovy considers *being* a biologist to take on the shared values of biologists. I believe in the "common bond" and worth of understanding life as Janovt discussed on page 2, and my metaphors always end up biology-themed as discussed on page 20; I believe in Janovy's definition, I could consider myself a biologist.