Skill Inventory Questions:

19. What's the difference between a for loop and a while loop?
    - A for loop runs for the amount of times stated in a statement before moving on with the code (or if a break command is used). A while loop will continue to run until the conditions aren't meant for the while loop to continue or a break command is used.

22. What's the difference between parameters and arguments?
    - Parameters are used during the definition of a function while arguments are used in their place during the calling of the function.

25. What's the difference between a class and an object?
    - A class is similar to a template being created to help make objects, a class is a categorization of objects. Class can exist with objects but an object can't exist without a class.

26. What is a constructor function? What does it do and when?
    - A special function that is called automatically when an object from a class is initiated. When defined in its class, it helps create a rough outline for what an object will be like once it's called in the main function.

27. Why should each class have its own tab in Processing?
    - It helps clearly differentiate different classes for an overall tidier experience; having to scroll to certain parts of the code to keep checking things from different classes would get tedious quickly.

31. What's the difference between an array and an ArrayList?
    - Arrays can contain objects *and* other types while ArrayLists can only store objects. Arrays are generally harder to edit once they've been created while ArrayLists can be easily added to, removed from, etc.

32. Why would you want to go through a list backwards, decrementing the index?
    - If you wanted to access items in a list from newest to oldest it would be helpful to go through it backwards

37. When should you use PVector instead of float variables?
    - PVectors are helpful at containing values in a more concise than float variables, they're useful at containing x and y coordinates as "position". Referencing the PVector is also easier than having to keep track of multiple float variables.

42. What is a normalized vector, why is it useful?

- It’s useful to normalize a vector because it allows you to distinguish between the vector's magnitude and direction. For example, you can maintain a character's speed even when they move in weird diagonal directions.