# Test 3 Prep

Spring 2021

### Lists

- Accessing individual elements of the list
  - Using a for loop (for item in list)
  - Using an index (0 is lowest index, max is 1 less than the size)
- Searching
- Sorting
- Nested Lists

### List Questions

- Given a list, what is printed when.... Multiple choice questions
- myList = [1, 5, 9, 7]
- myList.append(23)
- myList.pop(0)
- What is printed with print(myList)
- Slicing myList(2:4)
- Size
- Appending
- Pop
- Might have to write code for this topic

## Searching and Sorting

- Understand how linear (aka sequential) search works
- Understand how binary search works
- Understand how the bubble sort works
- 2 5 8 1 9 0 3 what will it look like after 1 pass of the bubblesort
- 2 5 1 8 0 3 9 the answer of what the list would look like after 1 poss

### Strings

- Given some strings, put them together in a particular fashion
- title = "Mr."
- first = "Jack"
- last = "Redwine"
- Build "Mr. J. Redwine" from title, first, and last
- Might have to write code for this topic

#### Dictionaries

- Given a dictionary, what happens when ....
- Know what symbols create a dictionary {}
- Key:Value pairs
- How do you access a value using the key
- How do you add to a dictionary?
- How do you remove from a dictionary?

#### Classes

- Will have to write code for this topic: Create a class definition
- It will be something simple, you won't have to check for the user sending incorrect data
- You will need to know about default arguments
- Multiple choice questions as well.
- Class that you will write will have 1 or 2 pieces of instance data, you'll have to write the constructor, the getters and setters, and maybe one more method (member function)