# Week 3 Exercises Part 1

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1.1–1.2

# 1. Exercise: grocerylist.cpp

1. Write a **copy constructor** for GroceryList
2. Write a **copy assignment operator** for Grocery List

Extra practice

1. Write an '==' operator for GroceryList
2. Write [] operator for GroceryList. Make sure to include const and non-const versions. (why
3. Write + operator for GroceryList
4. Write += operator for GroceryList

Code: https://github.com/sandraleeusc/csci104_fall2020_lecture/

```
// for main inside grocerylist.cpp
//once you have written appropriate
//functions, you can change main to this

int main() {
  GroceryList list1, list2;
  list1.addItem("apples");
  list1.addItem("bananas");
  list1.addItem("peaches");
  list1.printList();
  list2.addItem("onions");
  list2.addItem("peppers");
  list2.addItem("broccoli");
  GroceryList list3 = list1;
  cout << boolalpha << (list1 == list3) << endl;
 GroceryList list4 = list1 + list2;
  list4.printList();
  cout << list4[3] << endl;
  list4[3] = "oatmeal";
  list4.printList();
}
```

# 2. T/F and Multiple Choice Inheritance questions

Submit your solutions to these previous exam T/F and multiple choice questions on inheritance.

# 3. Submit work on tracing functiontrace.cpp

The code for tracing is available here:
https://github.com/sandraleeusc/csci104_fall2020_lecture

Trace the output of functiontrace.cpp

- The output is in function_trace_output
- You need to understand what function is being called on each line and why.
- You should understand what function printed each statement. Other functions are called that do no print anything.
- You can add print statements to standard error, cerr
- To compile: g++ --std=c++17 -o test functiontrace.cpp
- To run and redirect standard error to a file:

./test 2> testing_outputfile