Name:

Develop your solution in the directory:

**/data/courses/ece\_1111/current/quizzes/qu\_11/lastname\_firstname/p01**

You must work this quiz in Python.

You probably have noticed that in America, we celebrate Thanksgiving by serving an elaborate meal that often includes turkey and pumpkin pie. Create a class called Dinner that has, as internal data, two classes: Turkey and PumpkinPie. The Turkey class should have internal data that consists of a float containing its weight and a character string pointer containing the vendor’s name (e.g., Butterball). Your PumpkinPie class should contain the weight of the pie as a float, and the diameter of the pie in inches.

Your Dinner class needs to have two methods:

1. Constructor that accepts values for the weight and vendor’s name for the Turkey object that is data within the Dinner class, as well as the weight and diameter of the PumpkinPie object. It should pass these values to the objects contained within the class (it should initialize them via their constructors).
2. A print method that displays all internal data (it will simply call the Turkey and PumpkinPie print methods).

Your Turkey and PumpkinPie classes need constructors and a print method that prints the class’s internal data.

Your solution needs to contain two files: **p01.py**, which is the driver, and **TurkeyTools.py**, which is imported by **p01.py**, and contains the class described above. No other files should be in this directory!

Your driver program, p01.py, should take the following arguments:

**p01.py 10 21.0 “Butterball” 2.0 9.0**

It MUST have executable permissions – I should not have to type “python p01.py”.

The first argument is the number of dinner objects you will create – see below. The next two are associated with the Turkey class (weight and name) and the last two are associated with the PumpkinPie class (weight and diameter).

The driver program should create $N$Dinner objects in a list, where $N$ is the first argument above. The first instance in this list should have the parameters above (specified from the command line). The remaining instances should have a value of weight for the Turkey class that adds $1.0$ to the weight of the previous Turkey (in the above example where the initial weight is $21.0$, the second element has a turkey weight of $21.0 + 1.0 = 22.0$, the third element has a weight of $23.0$, etc.).

The driver program should loop over all Dinner objects and call your print method (which in turn calls the print methods for the individual classes), so I can see the individual values of each object.

Your output should be easy to read, make it very clear what the variable names are, and what are the corresponding values. You will be judged on the quality and readability of your output – the more formatting the better ☺