**Problem #17**

**Planets**

Write a class called Planet. Every planet has a name, a radius, a mass, and the distance from sun. There needs to be a function that computes the gravity of the planet (g = GM/r 2, where M is the **mass** of the body, r its radius, and G the gravitational constant (= 6.67 × 10-11 newtons). Planets should have a function to return the distance from the sun, a function to return the name of the planet, and a function to print out its details in the following format:

Name: \_\_\_\_\_

Radius: \_\_\_\_\_

Mass: \_\_\_\_\_\_

Gravity: \_\_\_\_\_

Distance from sun: \_\_\_\_\_

Include some testing code within the planet.py module to test out the gravity function and the printing function.

Create a main program (in another file) that populates a list of all 8 (or 9 including Pluto) planets. You’ll have to look up the mass and radius of the planets.

1. Print out the list of planets in sorted order by name.
2. Print out the list of planets in sorted order by distance from the sun.

Print out the list of planets means to print out all of the details of each planet in the requested order.

Be sure to submit both modules in your solution.