AP Chemistry Summer Assignment Practice Quiz

You are expected to know all of the information in the summer packet. You will be quizzed on that information on Friday, August 30th. This document is a practice quiz. While the questions on the actual quiz will not match these questions, they will be very similar. If you perform well on this practice quiz, you should be prepared for graded quiz.

1. Examine the quantity 992000000 nm.
   1. Convert it into scientific notation.
   2. How many significant figures does it have?
   3. Convert it into meters.
2. The mass of fuel in a jet must be calculated before each flight to ensure that the jet is not too heavy to fly. A 747 jet is fueled with 173,231 L of jet fuel. If the density of the fuel is 0.768 g/mL, what is the mass of the fuel in kilograms?
3. An atom is composed of 50 protons, 69 neutrons, and 48 electrons.
   1. What element is this?
   2. What is the mass of this atom?
   3. What is the charge of this atom?
4. An ion of bromine has a mass of 80 amu.
   1. What is the charge of this ion and how do you know?
   2. How many protons, neutrons, and electrons does this ion have?
5. Write the electron configuration for a neutral atom of vanadium.
6. Draw the orbital diagram for a neutral atom of silicon.
7. List three halogens.
8. Which atom has a larger radius, phosphorous or silicon?
9. Write the chemical formula for the following compounds.
   1. Sodium phosphate
   2. Silicon tetrahydride
   3. Copper (II) nitrite
   4. Calcium phosphide
10. Write the chemical name for the following compounds.
    1. PS3
    2. RuSO4
    3. SrCl2
    4. CO
11. What is the mass of 4.5 x 1024 molecules of H2O? Your answer must have the proper number of significant figures.