HW 7.6: Matter

Directions: Fill in the blanks with the most appropriate word(s) from the Word Bank below. Words in the Word Bank may be used more than once or not at all. (1pt each)

Word Bank: homogeneous mixture compound diatomic solution heterogeneous mixture mixture element

1. A substance that is made up of only one type of atom, gallium for example, is called a(n) ________________.

2. Two or more substances physically combined form a(n) ________________.

3. Two or more substances chemically combined are called a(n) ________________.

4. ________________ elements, such as chlorine (Cl₂), are found in nature in their elemental form as two-atom molecules.

5. Glucose is an example of a(n) ________________.

6. Mint chocolate chip ice cream is an example of a(n) ________________.

7. Sodium chloride uniformly mixed in water is an example of a(n) ________________.

8. Flat diet Coke that has lost all of its bubbles is an example of a(n) ________________.

Directions: Circle the most correct answer. (1pt each)

1. Which of the following substances cannot be broken down by ordinary chemical reactions?
   a. Water
   b. gold
   c. carbon dioxide
   d. glucose

2. Which of the following does not have a uniform composition?
   a. Pure water
   b. Salt water
   c. oxygen gas
   d. salad

3. Which of the following is made up of only one type of atom?
   a. NO
   b. He
   c. CO
   d. MgS

4. Which of the following represents a mixture?
   a. NaCl(s)
   b. NaCl(l)
   c. NaCl(g)
   d. NaCl(aq)
**Directions:** Identify whether each of the following is an element, compound, homogeneous mixture or a heterogeneous mixture. (1pt each)

1. Hydrogen peroxide (H$_2$O$_2$)
2. Vanadium (V)
3. Oxygen (O$_2$)
4. Orange Juice with pulp
5. HCl (aq)
6. Salt and pepper
7. Chicken noodle soup
8. Octane (C$_8$H$_{18}$)
9. Oil and water
10. Sugar and water

**Directions:** Each of the pictures below represents a microscopic picture of a substance. Label each substance as diatomic element, compound, homogeneous mixture or heterogeneous mixture. (1pt each)