Section 1B Review

Name: _____

Part 1: Fill in the blanks for the following ionic compounds.

_____	Iron (II) fluoride	$Cu_3(PO_4)_2$	_____
_____	Tin (IV) oxide	$Al(OH)_3$	_____
_____	Calcium chloride	$(NH_4)_3PO_4$	_____
_____	Lithium dichromate	$Nb(SCN)_5$	_____
_____	Calcium oxide	NaF	_____
_____	Iron (III) sulfite	Sr_3P_2	_____
_____	Iron (III) sulfide	KCN	_____

Part 2: Define each of the following and give an example of each.

1) Element

2) Compound

3) Solution

4) Colloid

5) Suspension

Part 3: Rewrite the following equations:

1) Aqueous sodium carbonate reacts with solid copper to produce solid copper (II) carbonate and two solid sodium atoms.

2) $CaCO_3$ (s) + H_2SO_4 (aq) ---> $CaSO_4$ (aq) + H_2O (l) + CO_2 (g)

Part 3: Calculate the unknown value in each of the following.

1) mass = 3.4 g, volume = 12.2 mL, density = _____

2) density = 0.2 g/mL, volume = 3 cm^3, mass = _____

3) 25 mL, 4.2 g = _____

4) 11.3 g, 2.7 g/mL = _____

5) sphere radius 4.57 cm, 0.34 mg = _____

6) 4.23 g/mL, cylinder with r = 2.47 cm and h= 7.00 cm = _____

Part 4: Draw models for each of the following descriptors:

1) A mixture of two gases, both elements.

2) A suspension mixture of a compound and an element.

3) A homogeneous gas mixture of 4 different compounds.

4) A liquid solution in which the substance XY is the solute and W_2Z is the solvent.

5) A gas solution of a four atom molecule and a three atom molecule.

6) Describe the difference between a chemical change and a physical change. Include an example of each.