

PSC-4012 Quiz #3

Name:

Date:

1. Complete the table below indicating the name or chemical formula of each compound.

Chemical formula	New nomenclature	Traditional nomenclature
PI_5	phosphorus pentaiodide	
$Fe^{+3} O^{-2} = Fe_2O_3$	Iron (III) oxide	
$NiSO_4^{-2}$		nickel (II) sulfate
$Ca^{+2} PO_4^{-3} = Ca_3(PO_4)_2$		Calcium phosphate
P_2S_5	diphosphorus pentasulphide	
Cu_2O^{-2}	Copper (I) oxide	
$(NH_4)_3N$		Ammonium nitride
$AgCH_3COO$		Silver acetate

Handwritten notes:
 - $NM+NM$ next to PI_5
 - $Fe^{+3} O^{-2} = Fe_2O_3$ next to Iron (III) oxide
 - $Ca^{+2} PO_4^{-3} = Ca_3(PO_4)_2$ next to Calcium phosphate
 - P_2S_5 next to diphosphorus pentasulphide
 - Cu_2O^{-2} next to Copper (I) oxide
 - $(NH_4)_3N$ next to Ammonium nitride
 - $AgCH_3COO$ next to Silver acetate
 - "Type 2 Metal" next to $NiSO_4^{-2}$
 - "type 1" with an arrow pointing to $AgCH_3COO$

2. Give the chemical formula of the binary compounds formed by the combinations of elements H, J, L, and M, Q, and R from the families indicated below:

Element H: IA $+1$
 Element J: IIA $+2$
 Element L: IIIA $+3$
 Element M: IVA $+4$ or -4
 Element Q: VA -3
 Element R: VIIA -1

Compound formed by H and R: HR

Compound formed by J and Q: J_3Q_2

Compound formed by L and R: LR_3

Compound formed by H and M: H_4M

3. Match each of the substances below with the appropriate category of matter, by writing the letter corresponding to your answer in the space provided.

Categories: A - Homogeneous mixture
 B - Element
 C - Suspension
 D - Heterogeneous mixture
 E - Compound

Substance:

1. the air in this classroom A
2. fresh lemonade (made by squeezing real lemons) C
3. sterling silver (an alloy) A
4. 100% pure tungsten lightbulb filament B
5. 100% pure glucose ($C_6H_{12}O_6$) E
6. saline solution (salt water) A
7. cookie dough ice cream D
8. 100% pure salt (NaCl) E
9. gardening soil D
10. your exhaled breath A



