

Matching Game - Chemical PUNS

Place the element symbol from the right side with the left phrase to make punny sense

_____	What you do with dead people	H
_____	Storage place for street cars	N
_____	What most science course do (except this one)	Ni
_____	Eve's husband	Si
_____	the Lone Ranger's horse	Cu
_____	half a dime	He
_____	not fat	B
_____	a man who gives admission slips to traffic court	I
_____	gin with water in it	Sb
_____	what I do when I'm hungry	oxide
_____	male of the Ganese tribe	Rh
_____	what torpedoed ships do	atom
_____	what he did to a bucking horse	Ba
_____	why she wears "My Sin" perfume	Hg
_____	what should be done to a wounded man	Cl
_____	a crazy inmate	Pd
_____	night rider for Helen of Troy	C
_____	a western ranch owner	Zn
_____	name of a girl	Ag
_____	a thing which you turn on when it is dark	catalyst
_____	an ox's outer covering	electrolyte
_____	the only naturally occurring liquid metal	Sn
_____	big English theatre in London	Te
_____	what she got after the divorce	Mn

Assignment #1 – Compound Names and Formulas
Single-valent ions only

A. Name these Compounds

- | | |
|--------------------------------|-----------------------------------|
| 1. Li_2S _____ | 10. GeF_4 _____ |
| 2. CaO _____ | 11. Ga_2O_3 _____ |
| 3. NaF _____ | 12. EsCl_3 _____ |
| 4. CaBr_2 _____ | 13. Fm_2O_3 _____ |
| 5. MgCl_2 _____ | 14. Mg_3N_2 _____ |
| 6. BBr_3 _____ | 15. Rb_2O _____ |
| 7. Cs_2O _____ | 16. RaO _____ |
| 8. FrBr _____ | 17. SrO _____ |
| 9. Ag_2S _____ | 18. Tc_2O_7 _____ |

B. Write the correct chemical formula for these compounds by balancing the ionic charges

- | | |
|-----------------------------|------------------------------|
| 1. sodium chloride _____ | 11. hydrogen oxide _____ |
| 2. magnesium fluoride _____ | 12. francium nitride _____ |
| 3. silver oxide _____ | 13. rubidium phosphide _____ |
| 4. indium bromide _____ | 14. potassium oxide _____ |
| 5. zinc bromide _____ | 15. beryllium sulphide _____ |
| 6. neodymium oxide _____ | 16. lithium sulphide _____ |
| 7. thorium sulphide _____ | 17. hydrogen bromide _____ |
| 8. actinium oxide _____ | 18. strontium nitride _____ |
| 9. radium bromide _____ | 19. calcium oxide _____ |
| 10. cesium oxide _____ | 20. tantalum nitride _____ |

Assignment #2 – Compound Names and Formulas
Multi-valent ions only

A. Write the correct formula for the following compounds, all of which have been named using the modern Roman Numeral Method. The ionic charge is given after the first element (metallic) in Roman Numerals.

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|------------------------------------|----------------------------------|
| 1. copper (II) oxide _____ | 11. manganese (III) oxide _____ |
| 2. mercury (I) oxide _____ | 12. vanadium (II) bromide _____ |
| 3. gold (III) chloride _____ | 13. niobium(V) oxide _____ |
| 4. thallium (III) bromide _____ | 14. titanium (III) oxide _____ |
| 5. bismuth (V) oxide _____ | 15. titanium (III) nitride _____ |
| 6. terbium (III) oxide _____ | 16. iron (II) oxide _____ |
| 7. uranium (VI) oxide _____ | 17. cobalt (II) phosphide _____ |
| 8. protactinium (IV) bromide _____ | 18. tin (II) oxide _____ |
| 9. cerium (III) oxide _____ | 19. thulium (II) bromide _____ |
| 10. arsenic (V) sulphide _____ | 20. copper (II) bromide _____ |

B. Name the compound using the Roman Numeral Method and balance the ionic charges.

- | | |
|---|--|
| 1. SnCl ₄ _____ | 9. PdF ₄ _____ |
| 2. BiBr ₅ _____ | 10. Os ₂ O ₃ _____ |
| 3. PoO ₂ _____ | 11. MoBr ₂ _____ |
| 4. Pbl ₂ _____ | 12. VCl ₅ _____ |
| 5. HgO _____ | 13. Mn ₂ O ₃ _____ |
| 6. HgCl _____ | 14. CoO _____ |
| 7. Au ₂ O ₃ _____ | 15. Np ₂ O ₃ _____ |
| 8. FeCl ₂ _____ | 16. V ₂ O ₅ _____ |

Assignment #3 – Compound Names and Formulas
Single and Multi-valent ions

A. Write the correct formula for the following compounds.

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|-------------------------------|-------------------------------|
| 1. gallium oxide _____ | 11. silicon oxide _____ |
| 2. mercury (I) chloride _____ | 12. aluminum bromide _____ |
| 3. tin (IV) bromide _____ | 13. tin (II) sulphide _____ |
| 4. indium oxide _____ | 14. germanium bromide _____ |
| 5. cadmium sulphide _____ | 15. nickel (II) oxide _____ |
| 6. magnesium oxide _____ | 16. strontium astatide _____ |
| 7. potassium nitride _____ | 17. aluminum oxide _____ |
| 8. iron (III) sulphide _____ | 18. copper (II) oxide _____ |
| 9. gold (III) bromide _____ | 19. lawrencium fluoride _____ |
| 10. zinc oxide _____ | 20. actinium oxide _____ |

B. Name the following compounds correctly. Only include the Roman Numeral in the name if the first element has 2 or more combining capacities.

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|----------------------------------|-----------------------------------|
| 1. CaBr_2 _____ | 9. AsCl_5 _____ |
| 2. K_2O _____ | 10. Eu_2O_3 _____ |
| 3. Fe_2O_3 _____ | 11. NdBr_3 _____ |
| 4. ZnF_2 _____ | 12. Cu_3N_2 _____ |
| 5. CuCl _____ | 13. CoS _____ |
| 6. Ni_2O_3 _____ | 14. ZrO_2 _____ |
| 7. AuCl _____ | 15. Li_2O _____ |
| 8. HgBr _____ | 16. NaH _____ |

Assignment #4 – Compound Names and Formulas
Polyatomic Ions

A. Write correct formula for these compounds. They all contain polyatomic ions.

- | | |
|-------------------------------|--------------------------------------|
| 1. ammonium chloride _____ | 11. gold (III) hydroxide _____ |
| 2. sodium chlorate _____ | 12. sodium carbonate _____ |
| 3. sodium sulphate _____ | 13. calcium hydrogen carbonate _____ |
| 4. potassium sulphite _____ | 14. ammonium nitrate _____ |
| 5. calcium phosphate _____ | 15. ammonium carbonate _____ |
| 6. calcium hydroxide _____ | 16. ammonium sulphate _____ |
| 7. iron (III) hydroxide _____ | 17. lithium phosphate _____ |
| 8. copper (II) sulphate _____ | 18. iron (III) sulphate _____ |
| 9. sodium phosphite _____ | 19. potassium hydroxide _____ |
| 10. lithium chlorate _____ | 20. ammonium hydroxide _____ |

B. Name the following compounds which contain polyatomic ions correctly.

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|---------------------------------------|--|
| 1. CaCO_3 _____ | 11. Zn(OH)_2 _____ |
| 2. NaHCO_3 _____ | 12. Ca(OH)_2 _____ |
| 3. NH_4OH _____ | 13. Cr(OH)_3 _____ |
| 4. H_2SO_4 _____ | 14. $\text{Ca(ClO}_3)_2$ _____ |
| 5. NaNO_3 _____ | 15. $\text{Pb}_3(\text{PO}_4)_2$ _____ |
| 6. $\text{Fe}_2(\text{CO}_3)_3$ _____ | 16. BaCO_3 _____ |
| 7. $\text{Al}_2(\text{SO}_4)_3$ _____ | 17. Be(OH)_2 _____ |
| 8. HOH _____ | 18. Li_3PO_4 _____ |
| 9. $\text{Ca(NO}_3)_2$ _____ | 19. $\text{Fe}_2(\text{CO}_3)_3$ _____ |
| 10. Li_2CO_3 _____ | 20. H_3PO_4 _____ |

Assignment #5 – Compound Names and Formulas

Covalent Compounds

Prefixes and their meanings

mono = 1, di or bi = 2, tri = 3, tetra = 4, penta = 5,
hexa = 6, hepta = 7, octo = 8, nona = 9, deca = 10

A. Write the correct chemical formula for these compounds. The prefix in front of the element indicates how many of that atom will be in the compound. DO NOT try to balance their ionic charges.

- | | |
|---------------------------------|--------------------------------|
| 1. carbon monoxide _____ | 11. selenium trichloride _____ |
| 2. carbon tetrachloride _____ | 12. carbon tetraiodide _____ |
| 3. carbon dioxide _____ | 13. boron trichloride _____ |
| 4. sulphur dioxide _____ | 14. carbon tetrafluoride _____ |
| 5. sulphur trioxide _____ | 15. boron tribromide _____ |
| 6. diphosphorous trioxide _____ | 16. selenium trioxide _____ |
| 7. carbon tetrafluoride _____ | 17. nitrogen trifluoride _____ |
| 8. phosphorous dioxide _____ | 18. sulphur dichloride _____ |
| 9. dihydrogen dioxide _____ | 19. nitrogen dioxide _____ |
| 10. selenium trioxide _____ | 20. dinitrogen tetroxide _____ |

B. The following elements exist in nature as diatomic molecules (2 atoms per molecule). Write the formula for each of these elements.

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|-----------------------|-----------------------|
| 1. hydrogen gas _____ | 5. fluorine gas _____ |
| 2. chlorine gas _____ | 6. bromine gas _____ |
| 3. nitrogen gas _____ | 7. iodine solid _____ |
| 4. oxygen gas _____ | |

Assignment #6 – Compound Names and Formulas Summary

A. Write correct formula for these compounds.

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|----------------------------------|-------------------------------------|
| 1. boron trichloride _____ | 11. magnesium carbonate _____ |
| 2. aluminum hydroxide _____ | 12. calcium hydroxide _____ |
| 3. silver sulphide _____ | 13. cesium sulphide _____ |
| 4. iron (II) iodide _____ | 14. carbon tetrachloride _____ |
| 5. copper (I) oxide _____ | 15. hydrogen gas _____ |
| 6. tin (IV) nitrate _____ | 16. carbon disulphide _____ |
| 7. zinc bromide _____ | 17. beryllium nitrate _____ |
| 8. nickel (III) oxide _____ | 18. sodium hydrogen carbonate _____ |
| 9. ruthenium (IV) sulphide _____ | 19. water _____ |
| 10. titanium (IV) oxide _____ | 20. lanthanum oxide _____ |

B. Name the following compounds correctly.

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|---------------------|------------------------|
| 1. H_2O _____ | 11. Al_2O_3 _____ |
| 2. PbI_2 _____ | 12. CO_2 _____ |
| 3. $MgCl_2$ _____ | 13. SiO_2 _____ |
| 4. Na_2O _____ | 14. NO_2 _____ |
| 5. $HgCl_2$ _____ | 15. H_2SO_4 _____ |
| 6. Ag_2O _____ | 16. $NaClO_3$ _____ |
| 7. Na_3PO_4 _____ | 17. $AuCl_3$ _____ |
| 8. $CaCO_3$ _____ | 18. $BiCl_5$ _____ |
| 9. $FeCO_3$ _____ | 19. Rb_3N _____ |
| 10. YBr_3 _____ | 20. $Ba(NO_3)_2$ _____ |