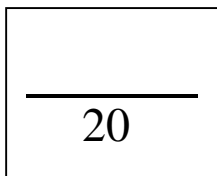


Activity # 11



Name _____

Date _____

Date due _____

Assignment on Ionic and Covalent Compounds

NOTE: This assignment is based on material given in your notes as well as pages 205-209 in the Science Probe textbook.

1. In an *ionic compound*, electrons are _____ from one atom to the other. The element that lost electron(s) becomes a (+/-) _____ ion and the element that gains electron(s) becomes a (+/-) _____ ion. The two oppositely charged ions now (attract/repel) _____ each other.
 2. In a *covalent* compound, one atom _____ electrons with another atom.
 3. Show the Bohr model for a *molecule* of H₂.
 4. Show the Bohr model for a molecule of F₂.
 5. Elements which consist of molecules made up of *two* atoms are called ____atomic elements.
 6. Give the formulas for molecules of the seven diatomic elements. The first one is H₂.
-

7. Draw the Bohr model for a molecule of **water**.
8. Draw the Bohr model for a molecule of methane (CH₄).
9. **Ionic compounds** are made up of a _____ and a _____.
10. **Covalent compounds** are made up of two or more _____.
11. In naming **covalent compounds**, the prefixes which tell how many atoms of an element are in the formula are as follows. The first one is done as an example

Number of Atoms in Formula	Prefix
1	mono
2	
3	
4	
5	
6	

12. Write the correct formulas for the following compounds:
- a) silicon tetrafluoride
- b) phosphorus trioxide
- c) nitrogen pentachloride
- d) sulphur hexafluoride
- e) nitrogen monoxide
- f) selenium dioxide
- g) diphosphorus trisulphide

13. Write the correct names for the following compounds:

- a) PF_5 _____
- b) SO_2 _____
- c) BrF_6 _____
- d) CO_2 _____
- e) N_2O _____
- f) N_2O_4 _____
- g) NI_3 _____
- h) CCl_4 _____
- i) SF_5 _____
- j) P_2O_3 _____
- k) BI_3 _____
- l) PCl_5 _____
- m) NO _____
- n) SCl_6 _____

14. Write the correct name for each of the following compounds (NOTE: Some are ionic, and some are covalent)

- a) KNO_3 _____
- b) $\text{Fe}_2(\text{CO}_3)_3$ _____
- c) CF_4 _____
- d) BCl_3 _____
- e) LiCl _____
- f) XeF_6 _____

- g) $\text{Ca}_3(\text{PO}_4)_2$ _____
- h) NF_3 _____
- i) H_2SO_4 _____ acid
- j) SeBr_5 _____
- k) SO_3 _____
- l) HNO_3 _____ acid
- m) $\text{Fe}(\text{NO}_3)_3$ _____
- n) TeCl_6 _____
- o) CH_3COOH _____ acid
- p) N_2Br_4 _____
- q) $\text{Co}(\text{NO}_3)_2$ _____
- r) HCl _____ acid
- s) Cl_4 _____
- t) $\text{Y}_2(\text{CrO}_4)_3$ _____
- u) HgCl_2 _____
- v) $\text{Ni}(\text{OH})_3$ _____
- w) H_3PO_4 _____ acid
- x) OBr_2 _____
- y) $\text{In}(\text{NO}_3)_3$ _____
- z) MoPO_4 _____
- α) Cu_2SO_3 _____
- β) $\text{Os}(\text{OH})_4$ _____

15. Write the correct formulas for the following compounds. (NOTE: Some are ionic, and some are covalent)

- a) selenium difluoride
- b) silicon tetraiodide.....
- c) copper (II) hydroxide
- d) sulphuric acid.....
- e) arsenic trichloride.....
- f) molybdenum (III) carbonate.....
- g) acetic acid.....
- h) diphosphorus pentoxide
- i) carbon disulphide
- j) selenium hexabromide
- k) hydrochloric acid.....
- l) rubidium dihydrogen phosphate.....
- m) rhenium (VII) chloride
- n) iodine pentafluoride
- o) xenon hexafluoride.....
- p) disulphur dichloride
- q) vanadium (IV) sulphate.....
- r) calcium hydrogen sulphate.....
- s) platinum (II) bicarbonate.....
- t) phosphoric acid
- u) mercury (I) dichromate.....
- v) iron (III) oxalate