

Ch 7: Covalent Compounds

Name: _____

Molecular (AKA "Covalent") Compounds

Indicate formula:

1) phosphorus tribromide
 PBr_3

2) sulfur tetrafluoride
 SF_4

3) dichlorine octoxide
 Cl_2O_8

4) disilicon hexachloride
 Si_2Cl_6

5) dinitrogen trioxide
 N_2O_3

6) triselenium dinitride
 Se_3N_2

Indicate name:

7) P_4S_5
tetraphosphorous pentasulfide

8) SeF_6
selenium hexafluoride

9) SCl_2
sulfur dichloride

10) CF_4
carbon tetrafluoride

11) S_4N_4
tetrasulfur tetranitride

12) Cl_2O_7
dichlorine heptoxide

Short Answer

13) Explain the difference between ionic and covalent bonds.

Ionic bonds = electrons transferred, magnetic attraction between cation & anion, strongest bond

Covalent bonds = electrons shared, between nonmetal & nonmetal

14) What are valence electrons?

the outermost electrons (or electrons in the highest energy level)

15) From where to atoms gain/ lose electrons?

valence electrons (or the highest energy level)

16) List the ten prefixes for molecular compounds.

1= *mono* 2= *di* 3= *tri*
4= *tetra* 5= *penta* 6= *hexa* 7= *hepta* 8= *octa* 9= *nona* 10= *deca*

Mixed Practice: Identify each compound as ionic (I) or covalent (C) = AKA molecular compounds

Write I or C in the box. You do not need to do anything else.

17) I lithium sulfide

18) C diphosphorus pentoxide

19) I magnesium nitrate

20) I nickel (III) phosphide

21) C silicon dioxide

22) C NO_2

23) I AlF_3

24) I KNO_3

25) I Ga_2O_3

26) C B_2O_3

