

Chemical Bonding Worksheet

9/10

Name: _____
 Date: _____

Instructions: Write the Lewis structure for each molecule. Indicate the type of bonding (ionic or covalent) and the hybridization of the central atom.

100 points

Complete the following table for the following compounds. Indicate the type of bonding (ionic or covalent) and the hybridization of the central atom.

Compound	Hybridization of central atom	Type of Bonding	Central Atom Hybridization
H_2	sp^3	Covalent	sp^3
H_2O	sp^3	Covalent	sp^3
CO_2	sp	Covalent	sp
SO_2	sp^2	Covalent	sp^2
NO_2	sp^2	Covalent	sp^2
BF_3	sp^2	Covalent	sp^2
CH_4	sp^3	Covalent	sp^3
NH_3	sp^3	Covalent	sp^3
H_2S	sp^3	Covalent	sp^3
C_2H_2	sp	Covalent	sp
C_2H_4	sp^2	Covalent	sp^2
C_2H_6	sp^3	Covalent	sp^3
C_2F_2	sp	Covalent	sp
C_2F_4	sp^2	Covalent	sp^2
C_2F_6	sp^3	Covalent	sp^3
C_2Cl_2	sp	Covalent	sp
C_2Cl_4	sp^2	Covalent	sp^2
C_2Br_2	sp	Covalent	sp
C_2I_2	sp	Covalent	sp
C_2O_2	sp	Covalent	sp
C_2S_2	sp	Covalent	sp
C_2Se_2	sp	Covalent	sp
C_2Te_2	sp	Covalent	sp
C_2Po_2	sp	Covalent	sp
C_2At_2	sp	Covalent	sp
C_2Nh_2	sp	Covalent	sp
C_2Fl_2	sp	Covalent	sp
C_2Cl_4	sp^2	Covalent	sp^2
C_2Br_4	sp^2	Covalent	sp^2
C_2I_4	sp^2	Covalent	sp^2
C_2O_4	sp^2	Covalent	sp^2
C_2S_4	sp^3	Covalent	sp^3
C_2Se_4	sp^3	Covalent	sp^3
C_2Te_4	sp^3	Covalent	sp^3
C_2Po_4	sp^3	Covalent	sp^3
C_2At_4	sp^3	Covalent	sp^3
C_2Nh_4	sp^3	Covalent	sp^3
C_2Fl_4	sp^3	Covalent	sp^3
C_2Cl_6	sp^3	Covalent	sp^3
C_2Br_6	sp^3	Covalent	sp^3
C_2I_6	sp^3	Covalent	sp^3
C_2O_6	sp^3	Covalent	sp^3
C_2S_6	sp^3	Covalent	sp^3
C_2Se_6	sp^3	Covalent	sp^3
C_2Te_6	sp^3	Covalent	sp^3
C_2Po_6	sp^3	Covalent	sp^3
C_2At_6	sp^3	Covalent	sp^3
C_2Nh_6	sp^3	Covalent	sp^3
C_2Fl_6	sp^3	Covalent	sp^3