

Name _____

Chapter 9 and 10 Homework 1 Ver B

1. Write the complete electron configuration for each element.

a. Ne

b. N

c. Al

d. K

2. Write the Lewis structure for each element

a. Ne

b. N

c. Al

d. K

3. What is the difference between an ionic and a covalent bond?

4. Complete the following chart to determine the Lewis Structure and shape of the following molecules or polyatomic ions:

Molecule	Total # Valence electrons	Lewis Structure	Electron Domain Geometry	Molecular Geometry
CH ₄ Methane				
H ₂ O Water				
O ₂ Oxygen gas				
CO ₂ Carbon dioxide				
SiCl ₄ Silicon tetrachloride				
CF ₂ Cl ₂ Choloro- fluocarbon-12				
NH ₃ Ammonia				
F ₂ O Difluorine monoxide				

Molecule	Total # valence electrons	Lewis Structure	Electron Domain Geometry	Molecular Geometry
N ₂ Nitrogen gas				
CH ₂ Cl ₂ Dichloro- methane				
COCl ₂				
SBr ₂ Sulfur dibromide				
CH ₂ O Formaldehyde				
NCl ₃ Nitrogen trichloride				
SO ₃ ⁻² Sulfite ion				
CN ⁻ Cyanide ion				