



Chemistry

Name: _____

Section _____

COVALENT BONDING WS

Date: _____

Covalent Bonding

Directions: Show covalent bonding in each of the following by drawing Lewis electron dot diagrams. Multiple bonds occur in some of the molecules.

1. H₂

2. Cl₂

3. O₂

4. N₂

5. H₂O

6. CO₂

7. CO

8. NH₃

9. CH₄

10. NH₄⁺

Directions: Classify each of the following as an atom, a diatomic molecule, or a molecule.

1. Co _____ 2. Cl₂ _____ 3. CO₂ _____

4. Ne _____ 5. H₂O _____

Directions: Answer the following questions.

2. How many electrons are shared in the bond in an O₂ molecule? _____.

3. How is a coordinate covalent bond different from other covalent bonds?

4. How many bonds can each of the following atoms form?

C _____ O _____ Cl _____

N _____ H _____

5. How many electrons are shared in the bond in an N₂ molecule? _____.

6. Characterize each of the following bonds as polar or nonpolar.

HCl _____ NH₃ _____ H₂O _____

CO₂ _____ N₂ _____ CH₄ _____