

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Chemistry

Worksheet 61

# Molecular Geometry



**DIRECTIONS:** Draw Lewis structures for the following molecules that obey the octet rule. Then determine the electronic geometry, molecular geometry and polarity.

**HCN**

**PH<sub>3</sub>**

**CHCl<sub>3</sub>**

e: \_\_\_\_\_

e: \_\_\_\_\_

e: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

**NH<sub>3</sub>**

**H<sub>2</sub>CO**

**SeF<sub>2</sub>**

e: \_\_\_\_\_

e: \_\_\_\_\_

e: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

**DIRECTIONS:** Draw Lewis structures for the following molecules or ions that do not obey the VSEPR theory. Then determine the electronic geometry, molecular geometry and polarity.

**PF<sub>5</sub>**

**BeH<sub>2</sub>**

**BH<sub>3</sub>**

e: \_\_\_\_\_

e: \_\_\_\_\_

e: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

**SF<sub>4</sub>**

**XeF<sub>4</sub>**

**ClF<sub>5</sub>**

e: \_\_\_\_\_

e: \_\_\_\_\_

e: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

m: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

p: \_\_\_\_\_

**“The imagination equips us to see a reality, we have yet to create.”**

**--Unknown**