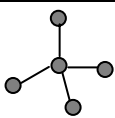
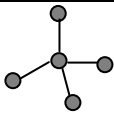
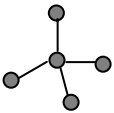
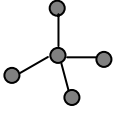


## VSEPR: USING LEWIS STRUCTURES AND VSEPR TO DETERMINE MOLECULAR GEOMETRY

NAME: \_\_\_\_\_ Period: \_\_\_\_ Date: \_\_\_\_\_

Calculate the electrons and **Draw the Lewis Structure**, then predict the **Electron Pair Geometry** (draw and name it) and the **Molecular Geometry** (draw and name it) for each of the compounds given:

COMPOUND FORMULA <i>(do electron addition and find the number of pairs here)</i>	DRAW THE LEWIS STRUCTURE	ELECTRON PAIR GEOMETRY DIAGRAM/NAME	MOLECULAR GEOMETRY DIAGRAM/NAME
$\text{CH}_4$ Ex: $\text{C}-4$ $\text{H}-1 \times 4 = 4$ $8 \div 2 = 4$ Pairs	<pre>                     H                                       H-C-H   H                     </pre>	 <b>TETRAHEDRAL</b>	 <b>TETRAHEDRAL</b>
$\text{BCl}_3$			
$\text{SbCl}_6^-$			
$\text{PCl}_3$			
$\text{TeF}_4$			
$\text{NH}_4^+$			
$\text{H}_2\text{O}$			
$\text{AsH}_3$			

COMPOUND FORMULA <i>(do electron addition and find the number of pairs here)</i>	DRAW THE LEWIS STRUCTURE	ELECTRON PAIR GEOMETRY DIAGRAM/NAME	MOLECULAR GEOMETRY DIAGRAM/NAME
CH <sub>4</sub> <b>Ex: C-4</b> $H-1 \times 4 = 4$ $8 \div 2 = 4 \text{ Pairs}$	<pre>       H         H --- C --- H               H           </pre>	 <b>TETRAHEDRAL</b>	 <b>TETRAHEDRAL</b>
XeF <sub>4</sub>			
I <sub>3</sub> <sup>-</sup>			
ClF <sub>3</sub>			
BrF <sub>5</sub>			
PCl <sub>5</sub>			
PCl <sub>4</sub> <sup>+</sup>			
SbCl <sub>5</sub>			