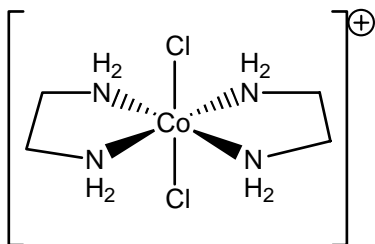


**CHEM 325**  
**Assigning Point Groups**

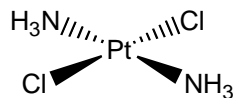
1. Fill in the following table.

<b>Species</b>	<b>Lewis Dot Structure</b>	<b>VSEPR Structure</b>	<b>Point Group</b>
F <sub>2</sub>			
HF			
NH <sub>3</sub>			
SF <sub>4</sub>			
XeF <sub>4</sub>			
PCl <sub>5</sub>			
SF <sub>6</sub>			

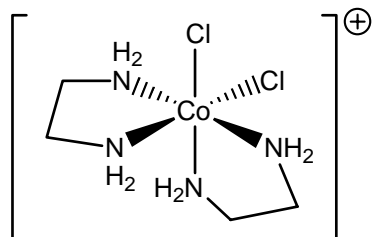
2. Assign the following molecules and ions to a point group; indicate which are chiral. You can ignore the hydrogens in compounds where they are attached to a nitrogen that is in turn bonded to a metal.



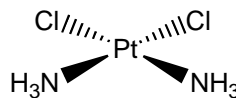
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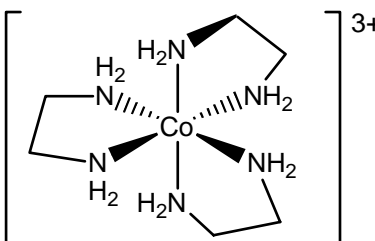
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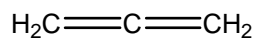
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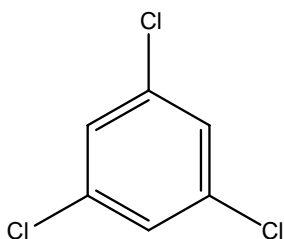
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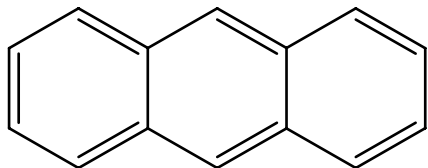
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cyclohexane (chair)

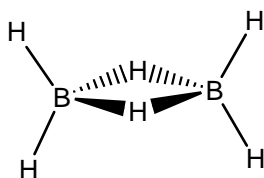
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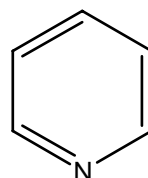
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cyclohexane (boat)

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