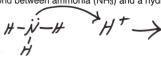
Complete the following in your class notebook with the heading: Covalent compounds (part 2)



- ${\bf 1.}\ Draw\ Lewis\ structures\ for\ the\ following\ compounds\ and\ label\ all\ pi\ and\ sigma\ bonds.$
 - a. CH₂O :0: /5 # = C = H
- b. C₂H₂

- 2. Use Lewis structures and arrows to show the formation of a coordinate covalent bond between ammonia (NH₃) and a hydrogen ion (H+).



- en ion (H+).

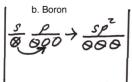
 H

 N

 H

 H

 H
 - bond
- 3. Show how each of the following elements form hybridized orbitals (label the orbitals both before and after hybridization takes place):
 - a. Beryllium



c. Carbon

- 4. Draw Lewis structures for the following compounds and label the hybridized bonding as sp, sp², or sp³.
- $\begin{array}{ccc}
 a. CCI_4 & : \ddot{C}/: \\
 : \ddot{C}/ C \dot{C}/: \\
 : \ddot{C}/ C \dot{C}/: \\
 : \ddot{C}/ \ddot{C}/: \\
 : \ddot{C}/ \ddot{C}/ \ddot{C}/: \\
 : \ddot{C}/ \ddot{C}/ \ddot{C}/: \\
 : \ddot{C}/ \ddot{C}/ \ddot{C}/ \ddot{C}/ \ddot{C}/ \ddot{C}/ \ddot{C$
- b. BBr₃