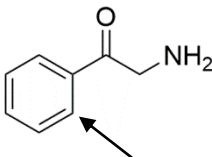
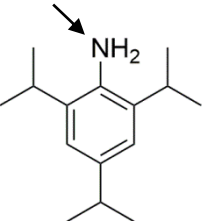
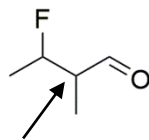
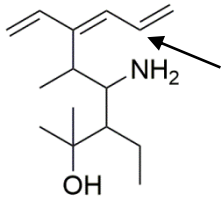
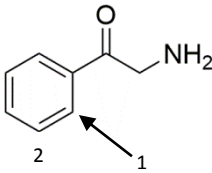
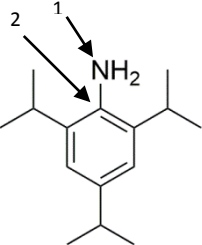
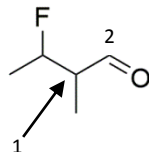
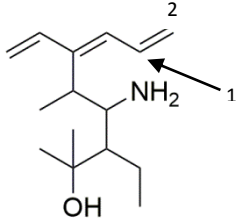
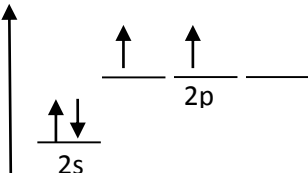
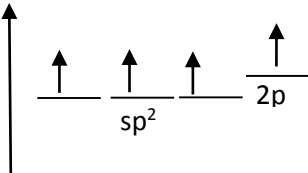


Line Formula and Valence Bond Theory Practice
 Chemistry 301

				
Write the molecular formula for this compound.				
How many total lone pairs would be on atoms in this compound?				
What is the electronic geometry around the atom indicated by the arrow?				
What is the molecular geometry around the atom indicated by the arrow?				
Indicate the following bond angles , where the central atom listed is the atom indicated by the arrow?	C-C-C C-C-H	C-N-H H-N-H	C-C-C C-C-H	C-C-C C-C-H
What is the hybridization of the atom indicated by the arrow?				

				
<p>For the atom indicated by the arrow, show the atomic orbital diagram for the valence electrons in the isolated atom (i.e. before it is bonded). The first one has been done for you.</p>				
<p>Now, for the same atom, show the orbital diagram for the atom now that it is bonded. The first one has been done for you.</p>				
<p>Describe the bonding for the bond between the atoms designated as 1 and 2. Include which orbitals are overlapping to form what types of bonds.</p>	<p>A sp^2 hybrid orbital from atom #1 overlaps with a sp^2 hybrid orbital from atom #2 to form a sigma bond. The p orbitals from the same two atoms overlap with side-on overlap to form a pi bond.</p>			