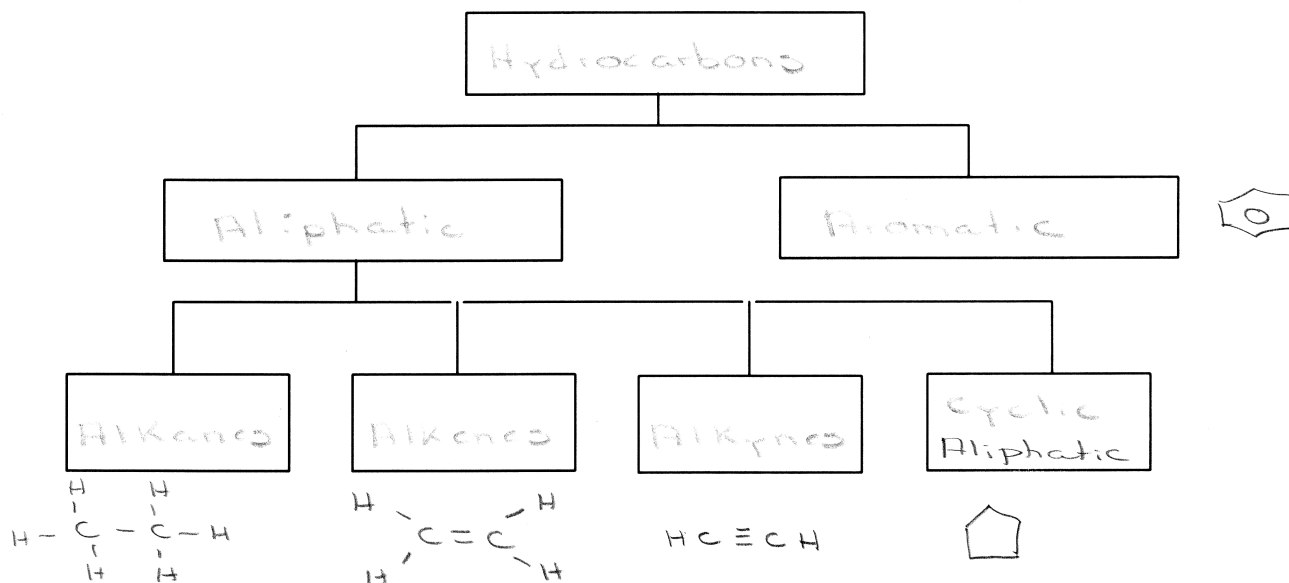
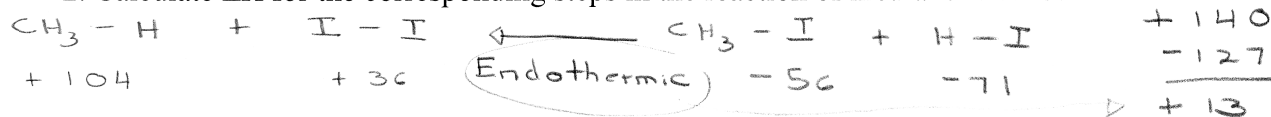


Chapter 2: "Methane" Worksheet

1. Fill-in the "Hydrocarbon Tree" and give an example of each:



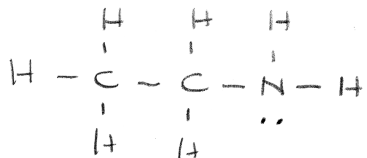
2. Calculate ΔH for the corresponding steps in the reaction of methane with iodine.



3. AX_4 is a molecule in which the A atom is sp^3 hybridized and the XAX bond angle is 109.5.

4. Formal Charge = $\frac{\text{Group \#}}{\text{Group \#}} - \frac{\text{Non-Bonding}}{\text{e}^-} - \frac{1}{2} \frac{\text{shared}}{\text{e}^-}$

The formal charge on the N in the following molecule is??



$$\begin{array}{l}
 5 - 2 - (\frac{1}{2}(6)) \\
 5 - 2 - 3 = "0"
 \end{array}$$