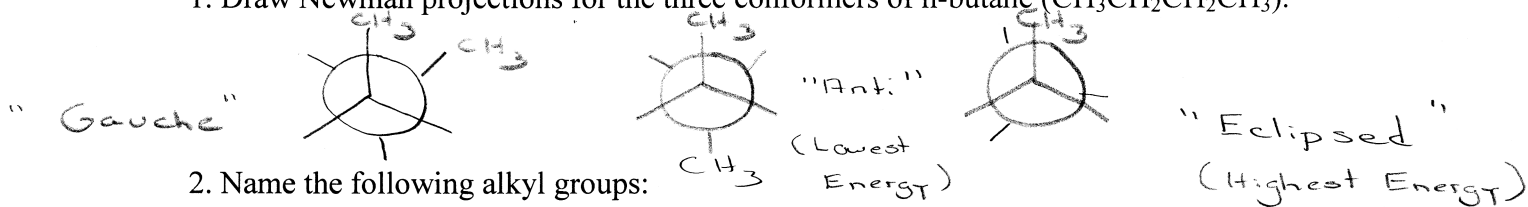
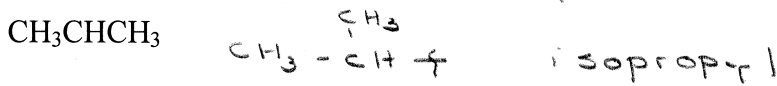
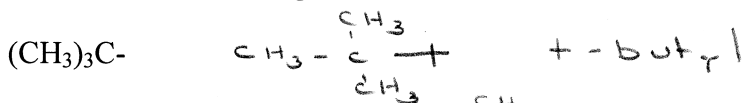
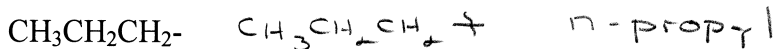
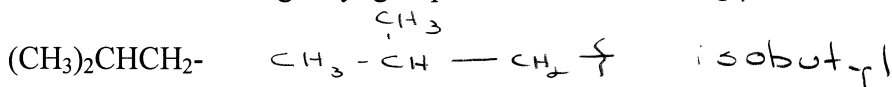


### Chapter 3: "Alkanes" Worksheet

1. Draw Newman projections for the three conformers of n-butane ( $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$ ).

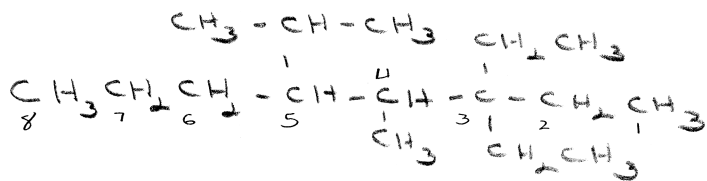


2. Name the following alkyl groups:



3. Given the following:  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}(\text{CH}(\text{CH}_3)_2)\text{CH}(\text{CH}_3)\text{C}(\text{CH}_2\text{CH}_3)_3$

(a) Draw the molecule.



(b) Find and number the longest carbon chain.

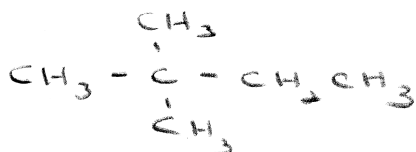
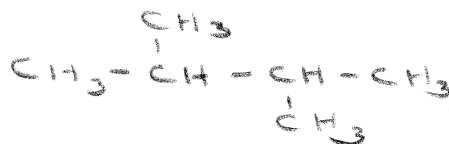
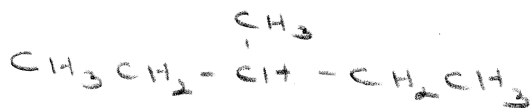
8 "octane"

(c) Name this compound.

3,3-diethyl  
 5-isopropyl  
 4-methyl

3,3-diethyl-5-isopropyl-4-methyloctane

4. Draw all of the isomers of hexane,  $\text{CH}_3(\text{CH}_2)_4\text{CH}_3$ .



Also try naming them ....