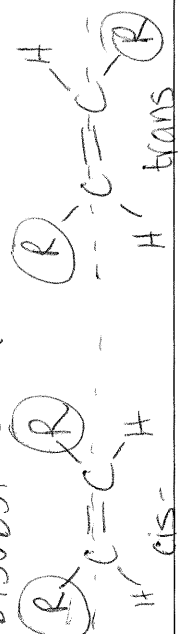
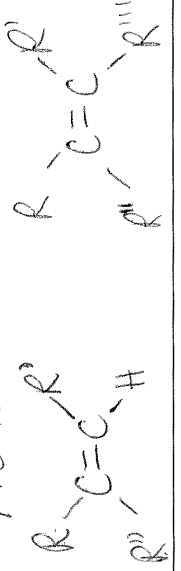


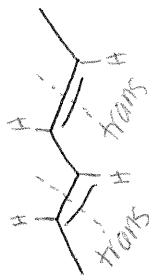

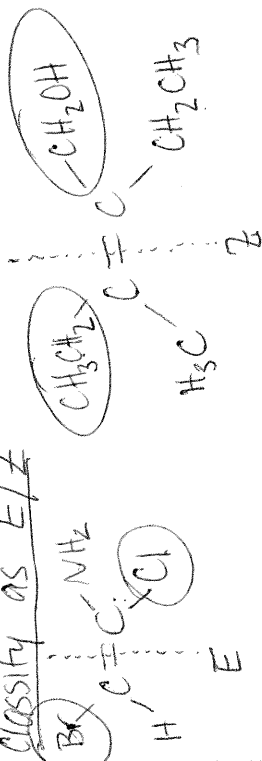
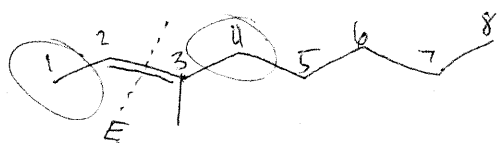


Isomers of Alkenes

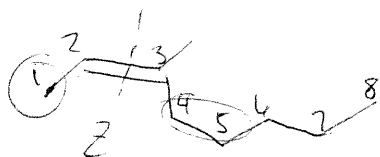
Note: Double Bonds don't allow for rotation, so we have many stereoisomers
 Carbons w/ identical groups $\left(\begin{matrix} \text{CH}_3 \\ \text{C}=\text{C}-\text{CH}_2\text{CH}_3 \\ \text{H} \end{matrix} \right) = \text{no stereoisomers}$

	Cis/Trans	E/Z
When to use?	Disubstituted Carbons 	Tri/Tetra Substituted Carbons 
Rules:	<ol style="list-style-type: none"> Follow regular naming rules, but be sure to specify cis/trans Rings of C8↓ can NOT be "trans" due to ring strain. For our purposes, no need to specify cis/trans for cycloalkenes - always cis. 	<ol style="list-style-type: none"> Longest chain through double bond Atoms with higher atomic # gets higher priority. If a tie, keep comparing until there is a difference.
Examples:	 trans-2-butene  cis-2-pentene  trans,trans-2,4-hexadiene  cis,trans-2,4-hexadiene	<p>E = opposite Z = same "on zee same zide"</p> <p>Classify as E/Z</p>  <p>* E/Z can be used in place of cis/trans cis/trans <u>can't</u> be used in place of E/Z</p>

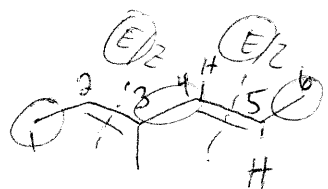


2-octene
3-methyl

(E)-3-methyl-2-octene

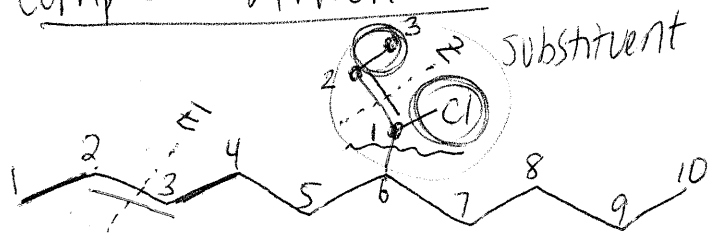


(Z)-3-methyl-2-octene



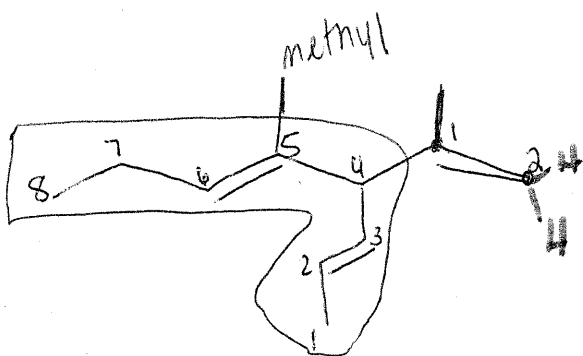
(2E, 4E)-3-methyl-2,4-hexadiene

Complex Alkenes:



* Longest chain containing
A double bond

(2E)-6-((Z)-1-chloro-1-propenyl)-2-decene



In a substituent, always choose
the chain w/ the double bond.

(2E, 5E)-5-methyl-4-(1-methylethenyl)-2,5-octadiene