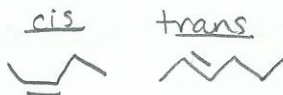


Key

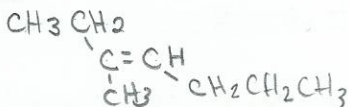
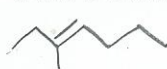
- Alkenes and alkynes are unsaturated (saturated / unsaturated). Why?
fewer H's than corresponding alkane; contains = or \equiv bonds
- What is the geometry about the carbons in the double bond of alkenes? Why?
trigonal planar; surrounded by three electron groups
- Draw the difference between *cis* and *trans* isomers. (try 2-hexene). Is this a form of structural or conformational isomers? - structural (there is no rotation about the double bond, so it will not be conformational)



Nomenclature

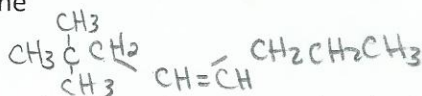
- Draw each of the following molecules and give the molecular formula:

- trans*-3-methyl-3-heptene



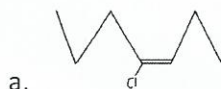
C_8H_{16}

- cis*-2,2-dimethyl-4-nonene



$\text{C}_{11}\text{H}_{22}$

- Name each of the following molecules and give the molecular formula:



cis-4-chloro-3-heptene

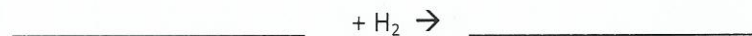


3-ethyl-2-methylcyclohexene

Reactions

- The following reactions all start from the same molecule, **2-butene**. 1) Draw this molecule, then 2) perform the following reactions on it

- Hydrogenation-



- Halogenation-



- Hydrohalogenation -



- Draw and name isomers for C_5H_{10}

Wait until next week!

