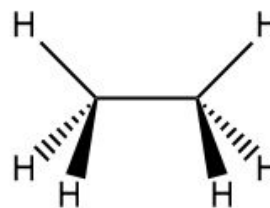
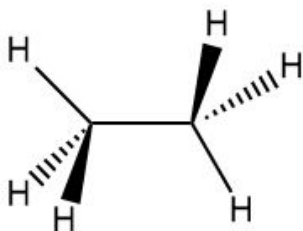


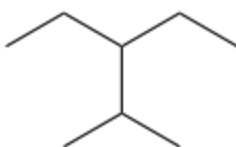
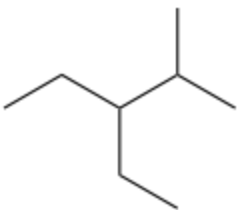
Week 6 Worksheet

1. a. Draw the Newman Projection of each ethane. Label each as either “staggered” or eclipsed.

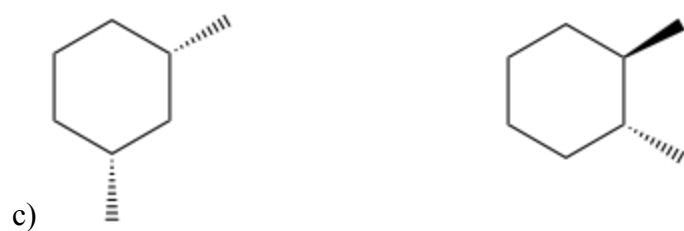
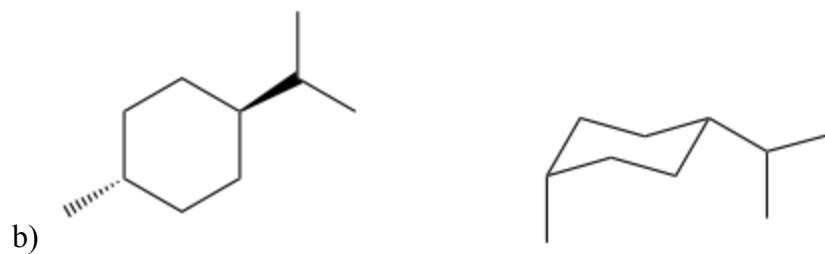


b. Circle the less energy (more stable) conformation above and explain the phenomenon that increases the energy of the other conformation.

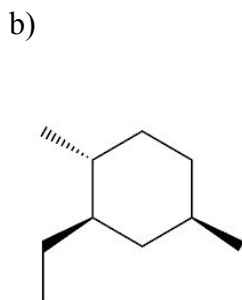
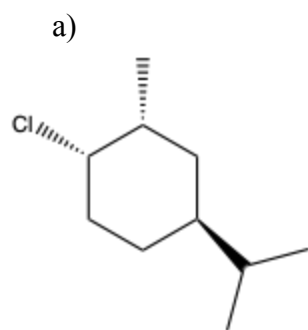
2. Identify whether each pair of compounds are constitutional isomers, stereoisomers, or identical.



a)

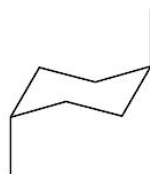


3. Draw both chair conformations of the molecules below and determine which one is more favorable.

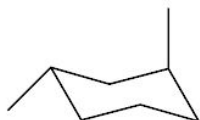


4. Determine whether the following molecules are cis or trans.

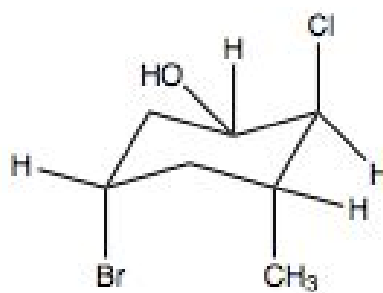
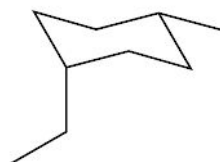
a)



b)

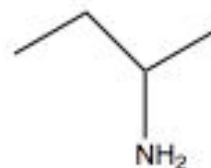
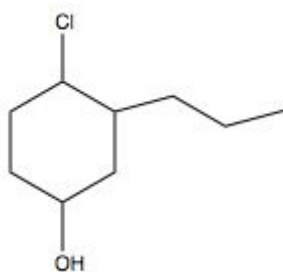


c)



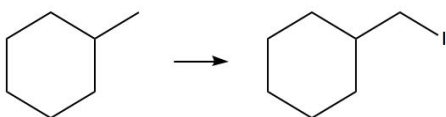
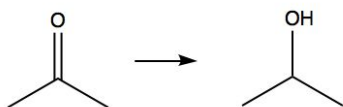
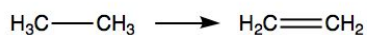
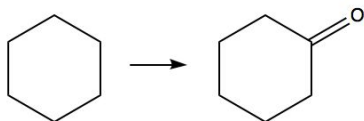
5. Draw the chair flip of this stereoisomer:
Which configuration is more favored?

6. Circle the chiral carbons of each molecule:

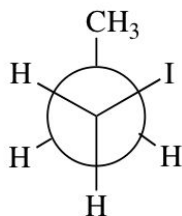


7. Oxidation is the loss of _____ which results in an increase in _____ & a decrease in _____. Draw the oxidation of CH_2O below:

8. Classify each reaction as oxidation or reduction.



9. Draw all the conformers of the following compound. Indicate which conformer has the highest energy and which has the lowest energy.



10. Convert the following into a Newman projection, maintaining stereochemistry at the two stereocenter.

