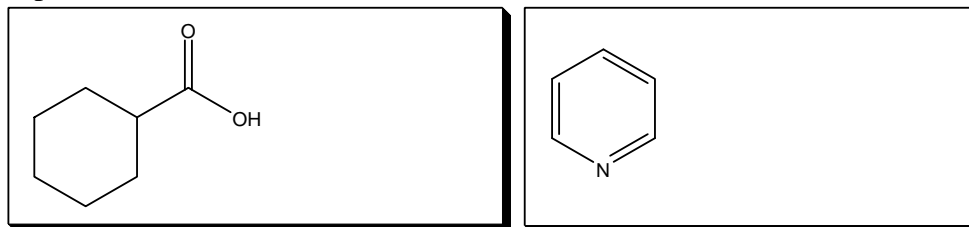
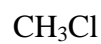
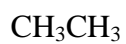
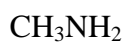


Discussion Problem Set 4
IMF, Alkane nomenclature, conformational analysis

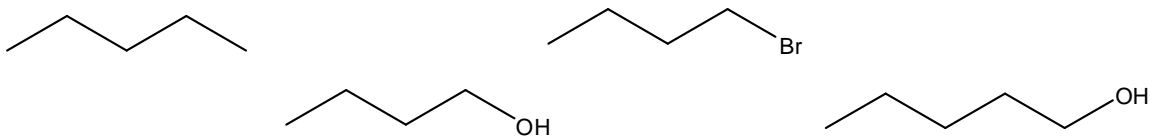
1. What type of intermolecular forces can each of these compounds exhibit with itself? (problem 3.17ac)



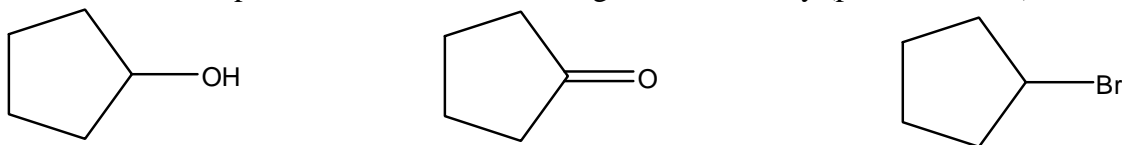
2. Rank these compounds in order of increasing strength of intermolecular forces. (problem 3.18a)



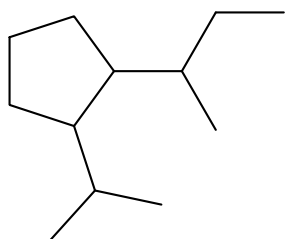
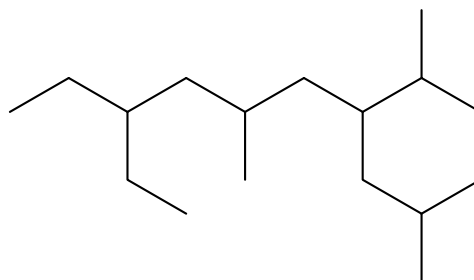
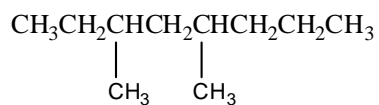
3. Rank these compounds in order of increasing boiling point. (problem 3.21d)



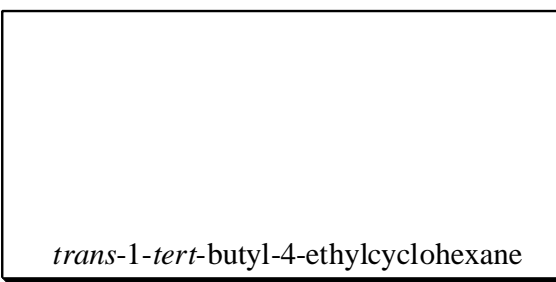
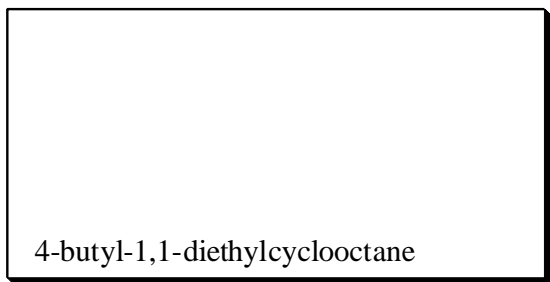
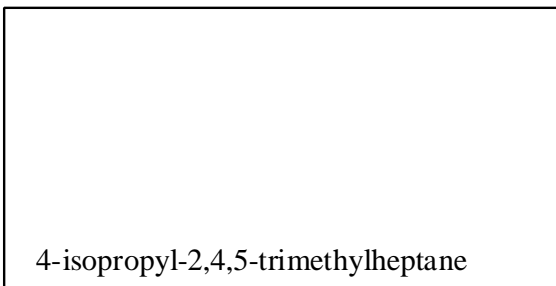
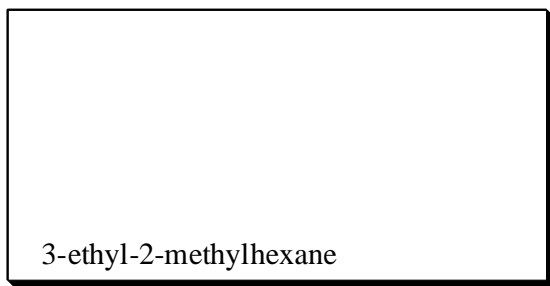
4. Rank these compounds in order of increasing water solubility (problem 3.26b)



5. Provide an IUPAC name for each of the following molecules. (problem 4.40aim)

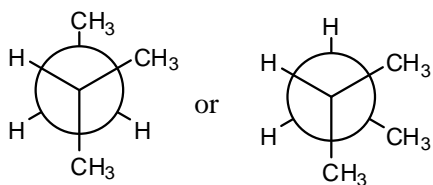


6. Draw structures for each of these IUPAC names. (Problem 4.42acfj)

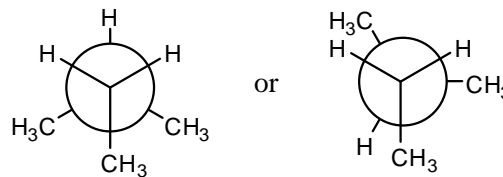


7. Which conformer in each pair is higher in energy? Explain. (problem 4.47)

A.



B.



8. Draw Newman projections of all staggered and eclipsed conformations that result from rotation around the indicated bond. Draw a graph of energy versus dihedral angle for rotation around this bond. (problem 4.49b)

