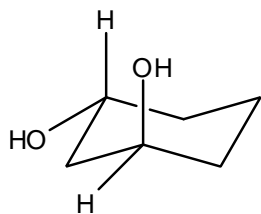


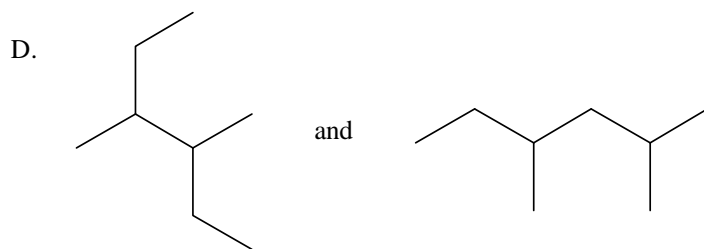
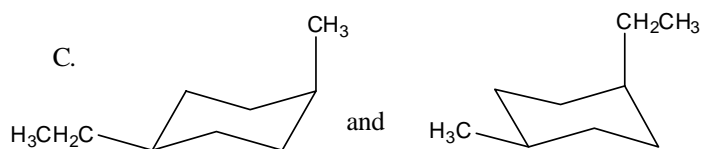
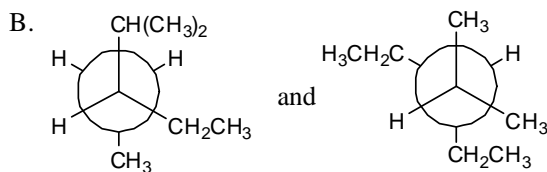
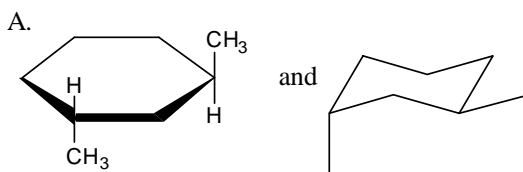
Discussion Problem Set 5

- For the compound below, label each substituent as axial or equatorial. Label the compound as cis or trans and draw a flat structure with wedges and dashes. Draw the second possible chair structure for the compound. (problem 4.54a)

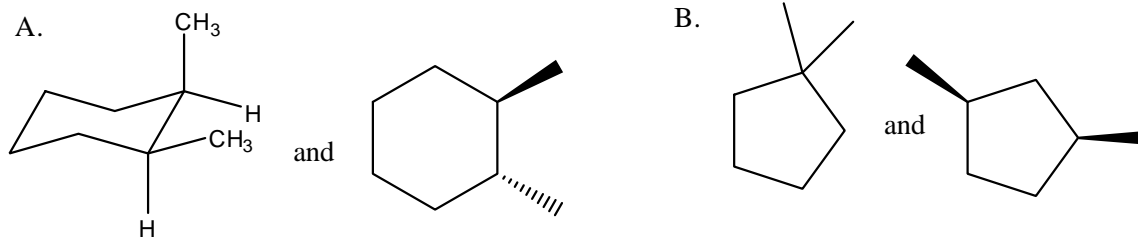


- Draw two possible chair structures for cis-1-isopropyl-3-methylcyclohexane and circle the more stable one. Do the same for the trans isomer. (Problem 4.55(1))

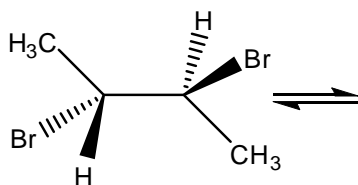
3. Label each pair of compounds as constitutional isomers, stereoisomers, identical molecules, or not isomers of each other. (Problem 4.59cfgh)



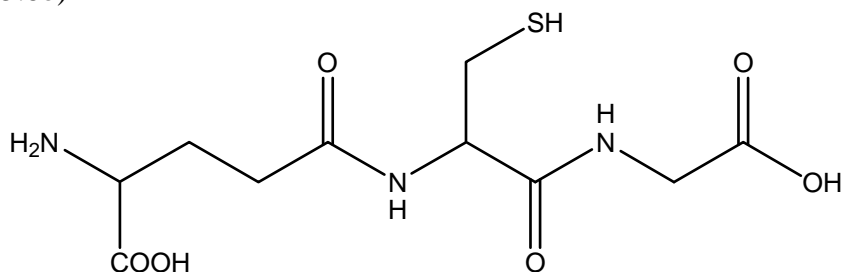
4. Label each pair of compounds as constitutional isomers, stereoisomers, or not isomers of each other. (Problem 5.33cd)



5. A molecule is *achiral* if it has a plane of symmetry in any conformation. The given conformation of 2,3-dibromobutane does not have a plane of symmetry, but rotation around the C2-C3 bond forms a conformation that does have a plane of symmetry. Draw this conformation. (problem 5.5)



6. Label all the stereogenic centers in glutathione (a naturally occurring antioxidant): (Problem 5.8b)



7. Draw both enantiomers of ketoprofen (Problem 5.39b)

