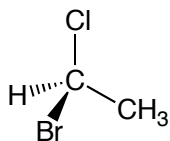


Recitation Week 8

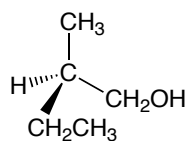
3/6/13

1. For each chirality center, determine the priorities of each of the four groups bonded to it, and then give the *R/S* designation.

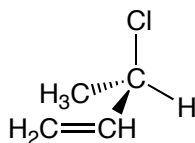
(a)



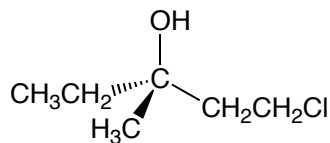
(b)



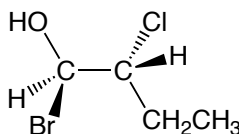
(c)



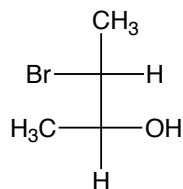
(d)



(e)

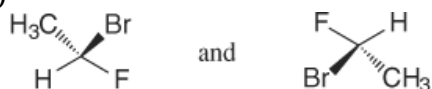


(f)

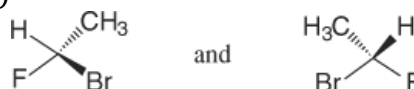


2. What is the relationship between each pair of molecules? They could be enantiomers, diastereomers, constitutional isomers, or identical molecules. You may want to **name** the compounds (including *R/S* labels) to help you decide (these are taken from problems 39 and 41 at the end of Chapter 5 of the textbook).

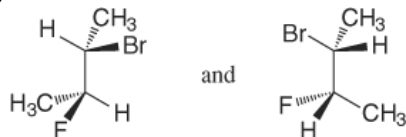
(a)



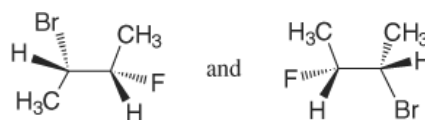
(b)



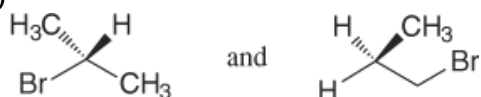
(c)



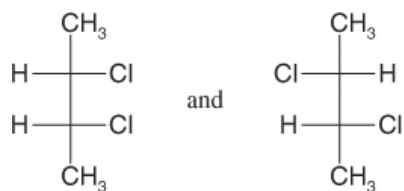
(d)



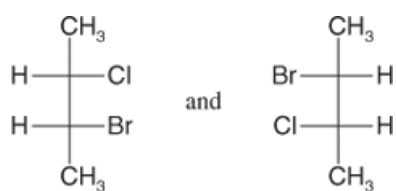
(e)



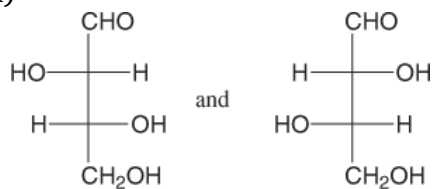
2. (contd.) (f)



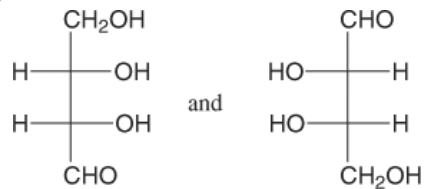
(g)



(h)



(i)



3. Draw Fischer projections for all of the stereoisomers of the following. Label any that are **meso** compounds:

(a) 3-chloro-2-butanol

(b) 3,4-dimethylhexane

4. Draw all of the stereoisomers of 1,3-dimethylcyclohexane. You can represent the ring as a hexagon; don't worry about conformations. Which one is a meso compound?