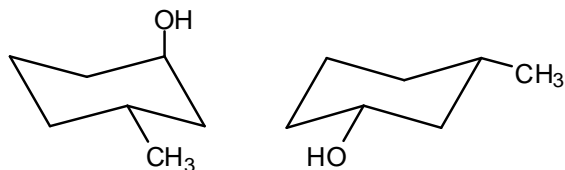


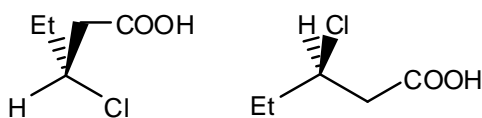
Chemistry 2500 (Fall 2017): Assignment #7 – Structural Relationships

1. What is the stereochemical relationship between the following molecules: are they diastereomers, enantiomers, constitutional isomers, conformers or identical? No explanation is required.

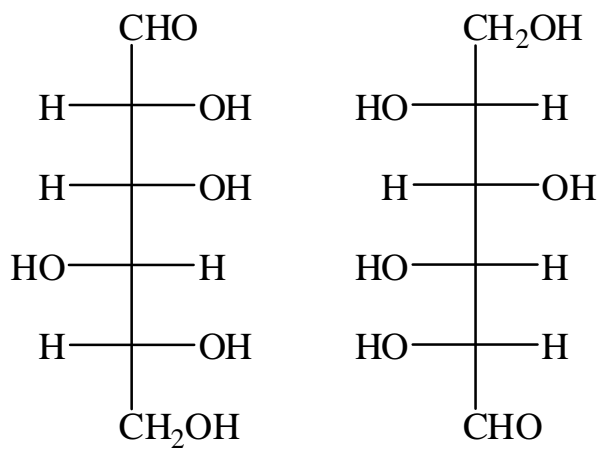
a)



b)

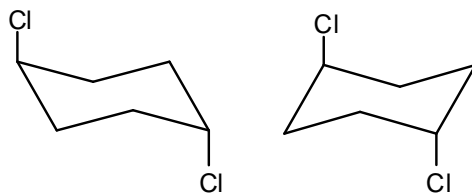


c)

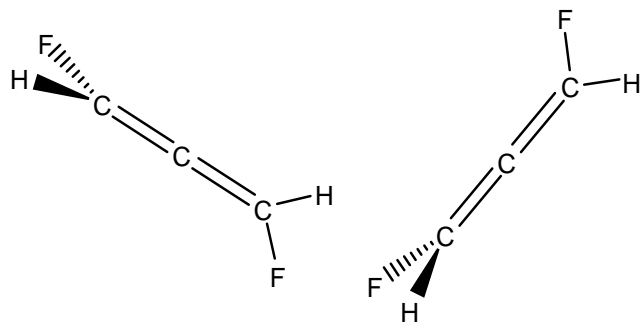


2. What is the relationship between the following molecules: are they diastereomers, enantiomers, identical molecules, conformers or constitutional isomers?

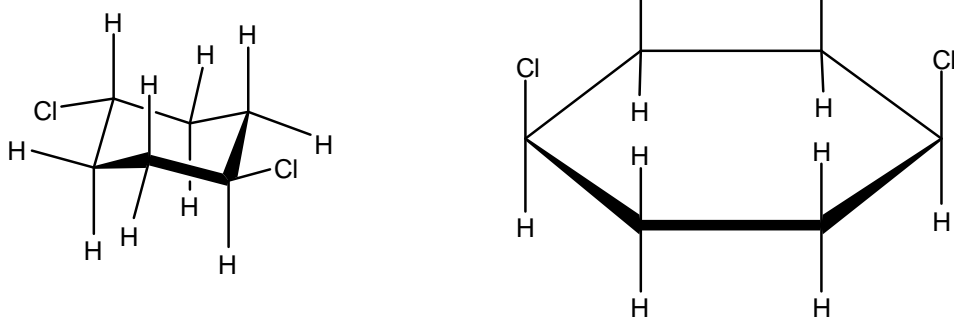
a)



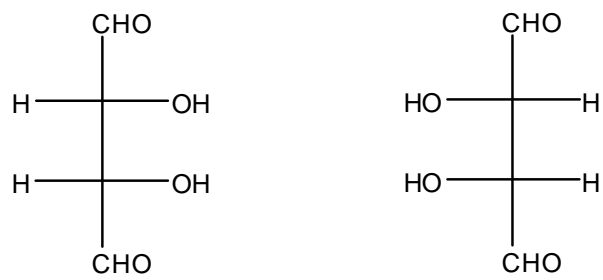
b)



c)



d)



e)



3. Using the appropriate letter or letters, indicate the relationship(s) between the following pairs of molecules. If there is more than one relationship, provide all the letters that apply. No explanation is required.

A = stereoisomers

B = constitutional isomers

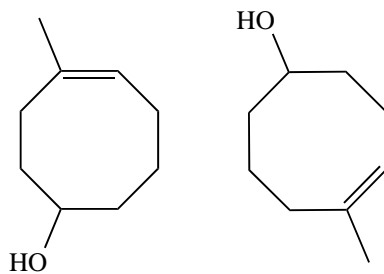
C = diastereomers

D = enantiomers

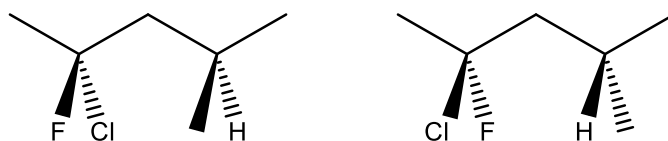
E = the same molecule

F = none of the above

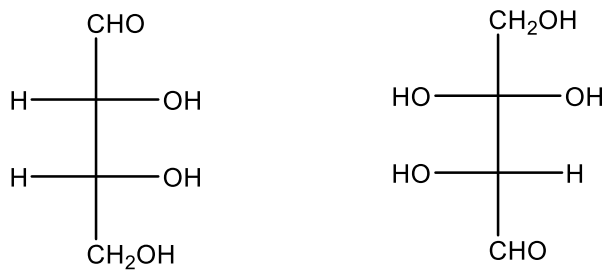
a)



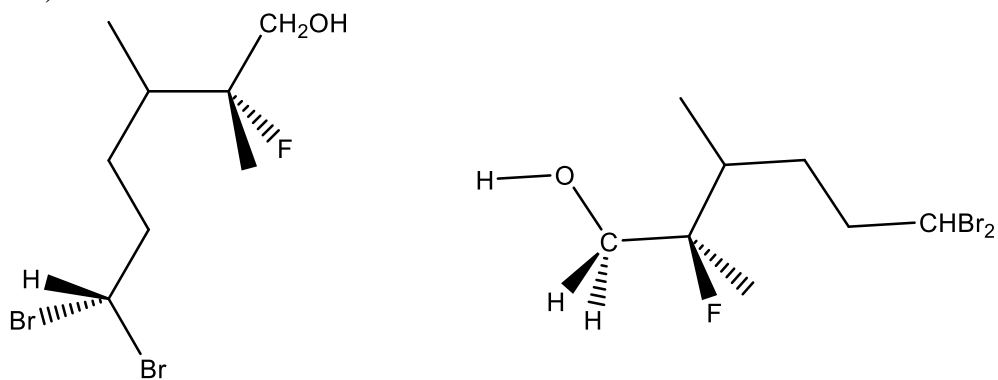
b)



c)

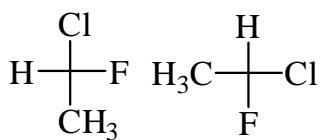


d)

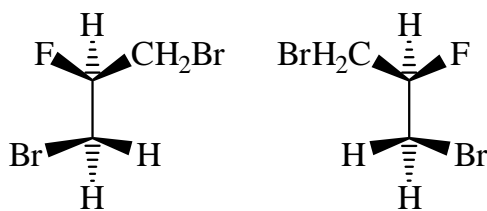


4. Are the following pairs of compounds enantiomers, diastereomers, conformers or the same?

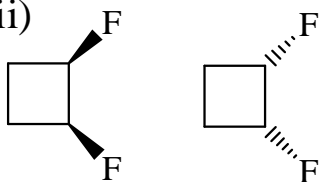
i)



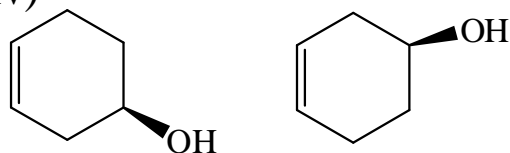
ii)



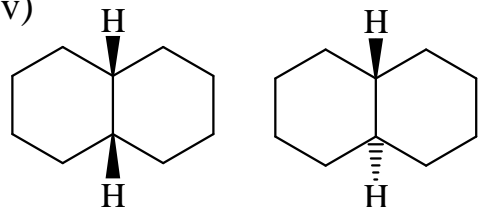
iii)



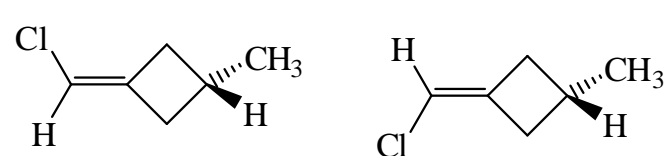
iv)



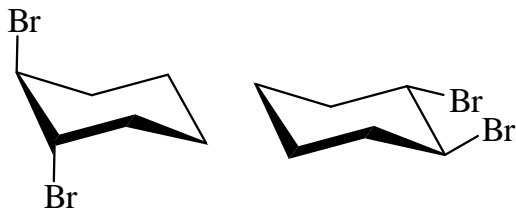
v)



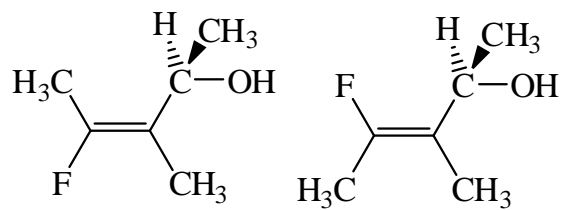
vi)



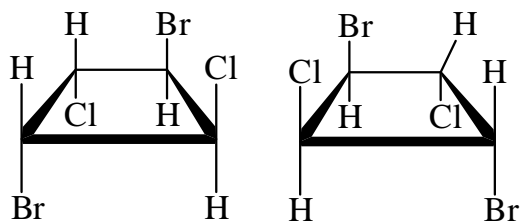
vii)



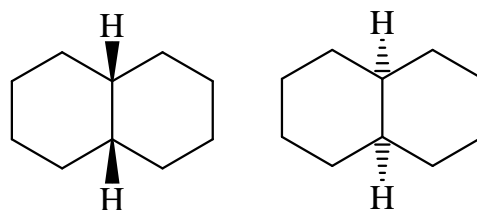
viii)



ix)



x)



5. What is the relationship of the following pairs of compounds (enantiomers, diastereomers or the same)?

