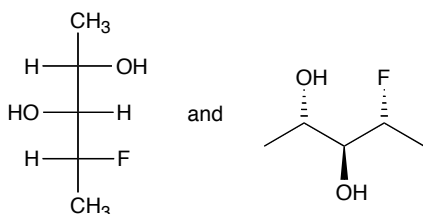
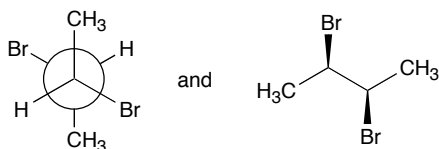


If you did poorly on the stereochemistry section of the exam, here's your chance to redeem yourself. A 5/5 on this assignment will earn you extra credit (up to 5 points) towards that page of the exam.

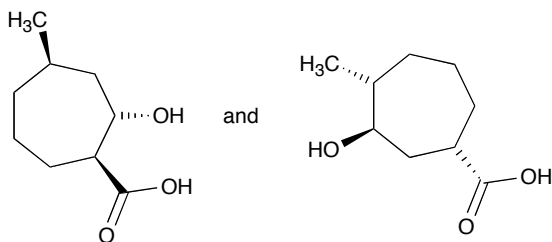
1. For each pair of compounds, identify the asymmetric carbons with stars, assign (*R*) or (*S*) configurations, and identify their relationship as same compound, enantiomers, diastereomers, or constitutional isomers (review these definitions!)



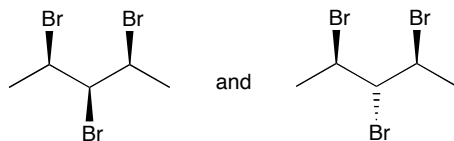
relationship: _____



relationship: _____



relationship: _____



relationship: _____

Extra credit (5 pts): On a separate sheet, show how C3 of both compounds to the left is stereogenic yet not an asymmetric carbon.

2. For the following compounds, **(a)** indicate whether the following compounds are chiral or achiral and why. **(b)** For the chiral compounds, draw the enantiomer. **(c)** Draw any internal mirror planes and **(d)** indicate if any compounds are meso (use the strict definition of meso we used in class – a molecule does not need a mirror plane to be meso!)

