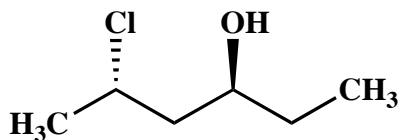


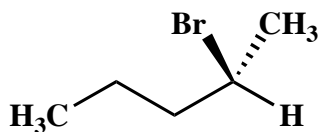
Problem Set 6

1. Place a star next to every asymmetric carbon atom for both of the following two (2) compounds. Use the Cahn-Ingold-Prelog (IUPAC) convention to determine whether each asymmetric carbon atom has an (*R*) or (*S*) configuration. Show and state your reasoning. To do so, write and analyze triads where appropriate.

A.

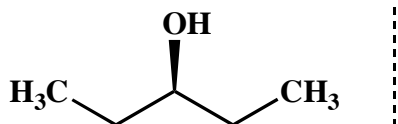


B.

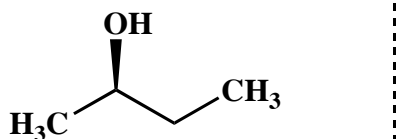


2. Draw the mirror image of each of the following three (3) compounds. State whether the mirror image is an enantiomer or is another view of the same compound. State your reasoning concisely.

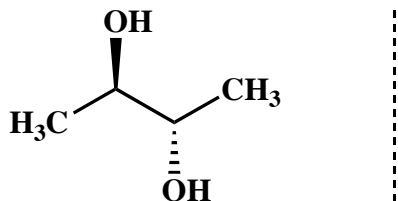
A.



B.



C.



3. State the relationship between each of the following three (3) pairs of structures (identical, enantiomers, diastereomers, structural isomers, conformational isomers, or different compounds that are not isomeric). State your reasoning concisely.

A.



B.

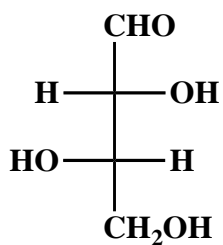


C.

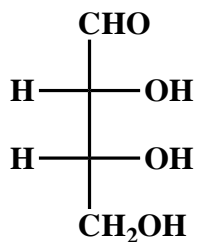


4. Draw zigzag line-angle formulas that correspond to the following two (2) Fischer projections.

A.



B.



Please bring your molecular models to class for the discussion of this problem set.