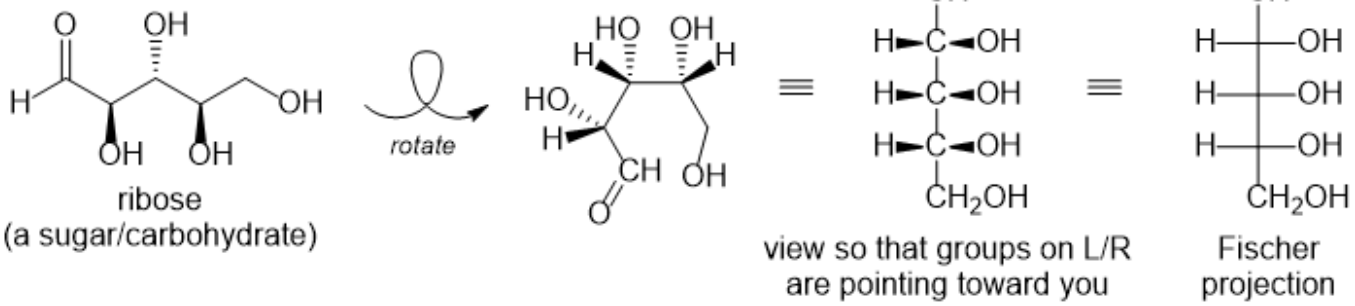
Organic Chemistry I, CHM 3140
Dr. Laurie S. Starkey, Cal Poly Pomona
Chapter 5 Stereochemistry, Part 2 – Practice Problems

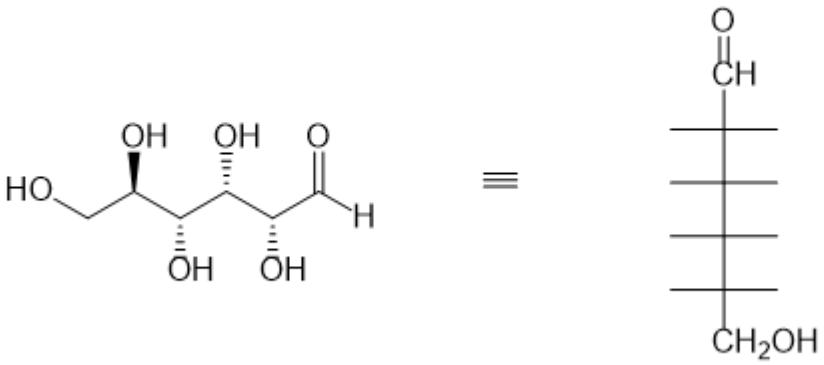
For clicker question voting, go to:
https://pollev.com/lauriestarke263 or
text LAURIESTARKE263 to 37607

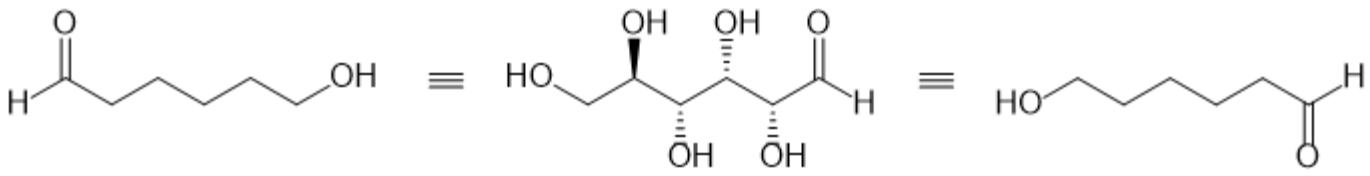
Fischer Projections



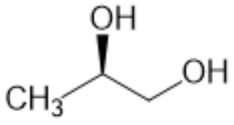
1

Draw the given compound as a Fischer projection, and on the provided skeletons:

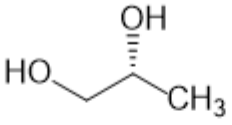




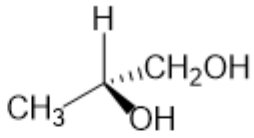
2 II. Revisited: assigning *R/S* configuration if group #4 is *in the plane* (5.3).



#4 is dashed
so 1-2-3

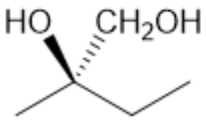


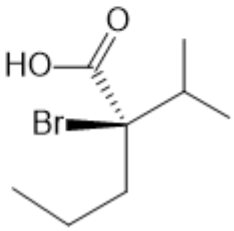
#4 is wedged
so 3-2-1



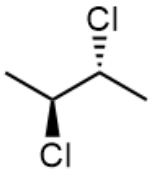
#4 is planar
so change POV!

Group work: assign configuration for the following compounds. Show your work.





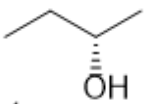
3 Is the following molecule optically active? Does it have an enantiomer?



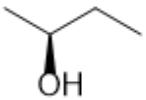
4

What is the relationship of the following pairs of compounds? ***try SkillBuilder 5.6***

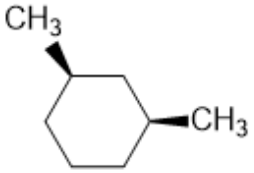
A) constitutional (structural) isomers
B) enantiomers
C) diastereomers
D) the same compound
E) unrelated



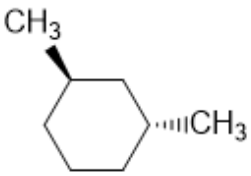
1



2



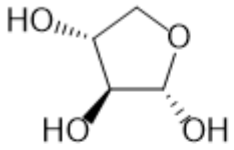
3



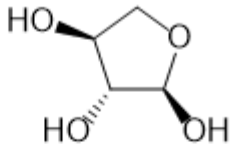
4

5 What is the relationship of the following pairs of compounds?

A) constitutional (structural) isomers
B) enantiomers
C) diastereomers
D) the same compound
E) unrelated

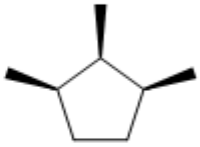


5



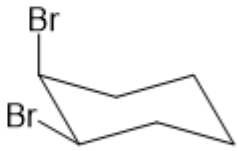
6

7

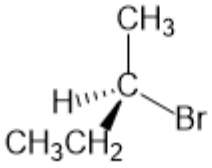


8

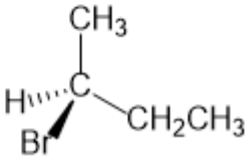
9



10



11



12

6