

(24) Today

Sections 5.1 – 5.5

Chirality and Determining the Configuration of Chiral Centers, Enantiomers, Diastereomers, and Meso Complexes

Next Class (25)

Sections 5.6 – 5.12

Diastereomers, R,P, and S, and Prochirality

(26) Second Class from Today

Chap 6

Third Class from Today (27)

Chap 6

Practice determining the configuration of centers of chirality

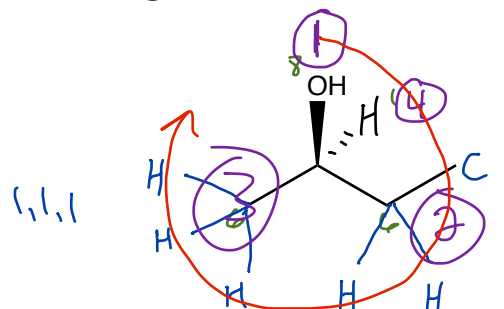
Section 5.1 – 5.5

Priorities are based on the atomic number of the atoms bonded to the chiral center.

Highest atomic number is 1st place to lowest atomic number in 4th place

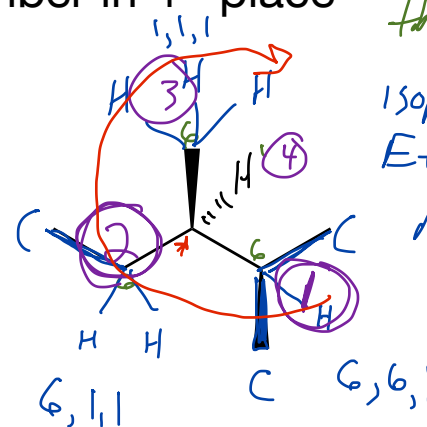
In a tie, go one bond further out.

three way tie
 Isopropyl wins 6,6,1
 Et 2nd 6,1,1
 Me 3rd 1,1,1



tie between two C's in first round

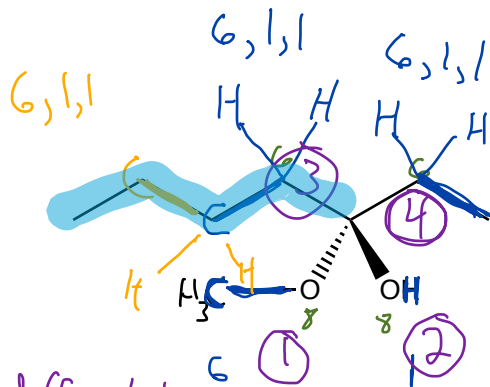
tie breaker goes to the Et group 6,1,1 vs Me group 1,1,1



R

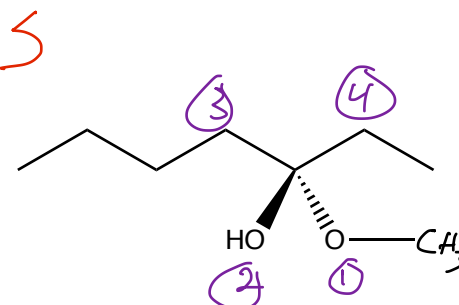
clockwise = R

rotate along in plane bond to put 4 in back. Rotate Et back to where tie

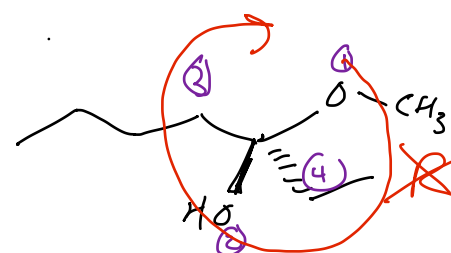


two different ties
 O's tie for 1st + 2nd
 C's tie for 3rd + 4th

cannot pass each other in space so the OCH₃ must go on the



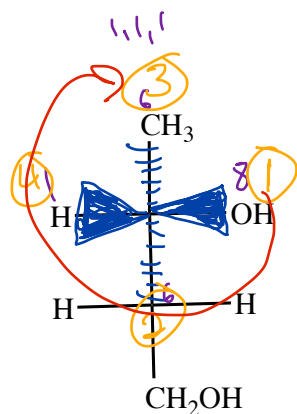
do the wrong molecule by switch 4 away



S

Fisher Projections

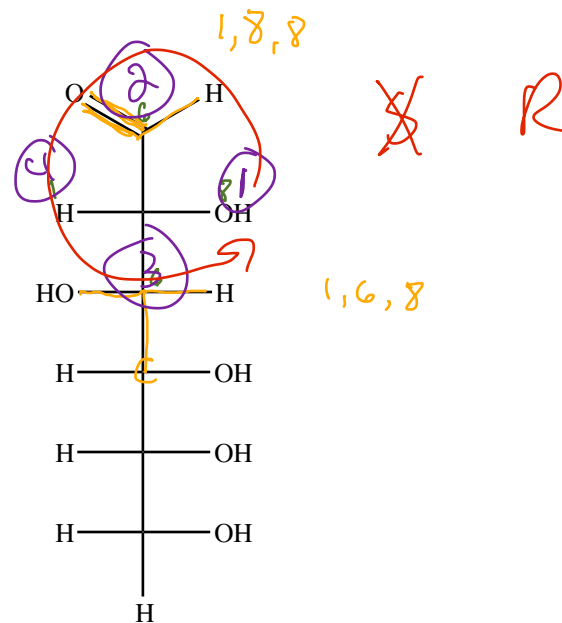
Section 5.1 – 5.5



1, 2, 6

~~R~~ \Rightarrow S

(4) is pointed
 opposite to where
 its supposed to
 be, so the correct
 configuration is opposite
 the $1 \Rightarrow 2 \Rightarrow 3$ direction



~~R~~ R