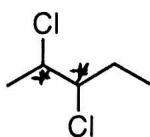
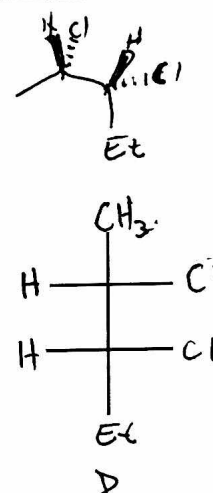
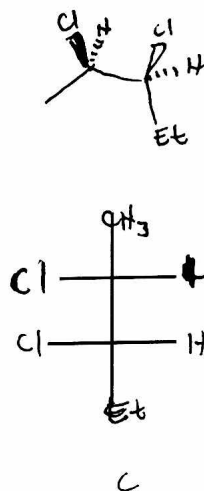
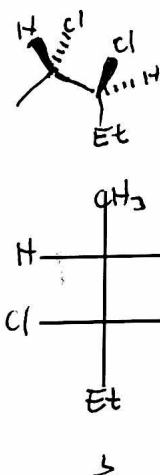
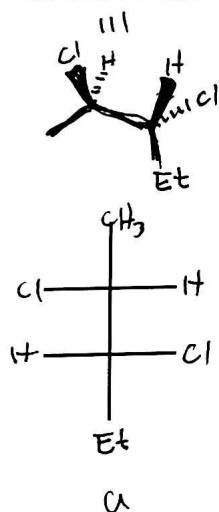
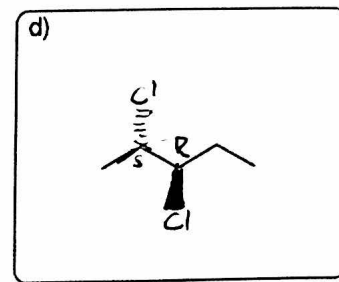
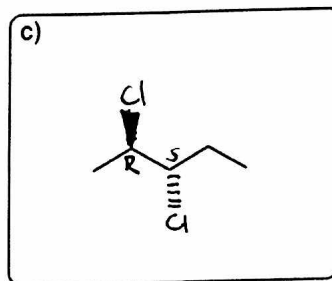
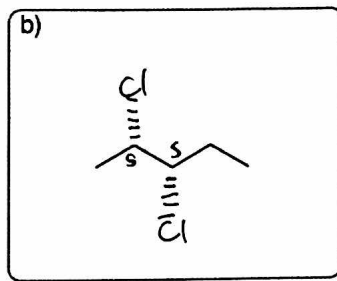
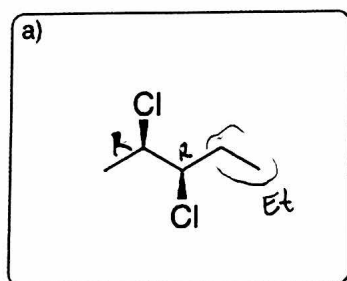


Working on Worksheets with your Neighbors (aka: WoW your neighbors)

Consider the molecule:



1. In the structure above, label the two chiral centers with an asterisk *
2. How many stereoisomers of this molecule can exist? 4
3. Draw both **dash/wedge** and **Fischer** projections of four stereoisomers. (note, one of them has already been drawn in box a).
4. Label the **specific configuration** at each chiral center of each stereoisomer.



5. Name each molecule above (think about how to include the specific configuration R/S label to accurately represent the name of the molecule):

a. (2R,3R)-2,3-dichloropentane

b. (2S,3S)-2,3-dichloropentane

c. (2R,3S)-2,3-dichloropentane

d. (2S,3R)-2,3-dichloropentane

Note:

Diastereomers

a & c b & d
a & d b & c

6. Which sets of molecules are enantiomers (mirror images of each other)? a & b, c & d