

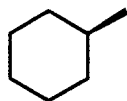
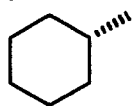
Drawing

Key

Warm-up Problem:

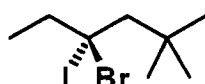
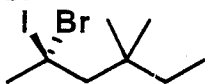
Are the following pairs of structures stereoisomers, structural isomers, the same structure, or unrelated? If they are stereoisomers, are they enantiomers or diastereoisomers?

a.



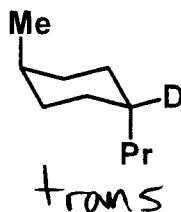
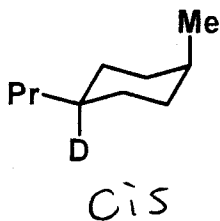
Same Structure

b.



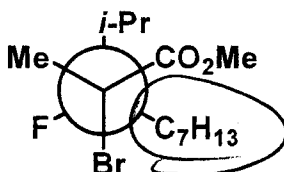
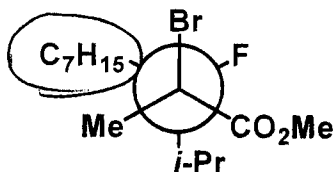
Structural Isomers

c.



Diastereomers

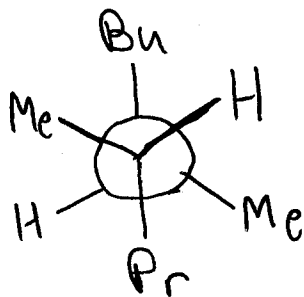
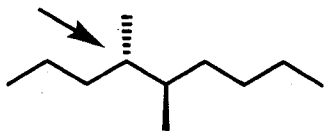
d.



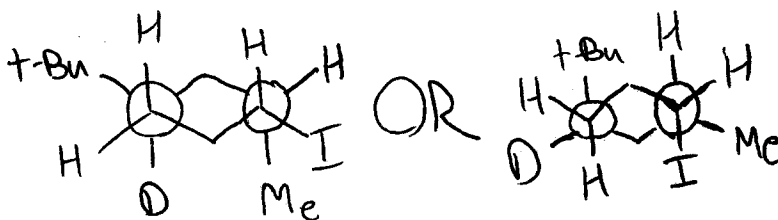
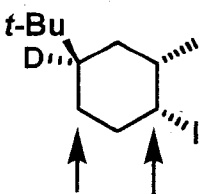
Unrelated

1. Draw a Newman projection for each of the following as if you were looking down the "arrowed" bond(s).

a.



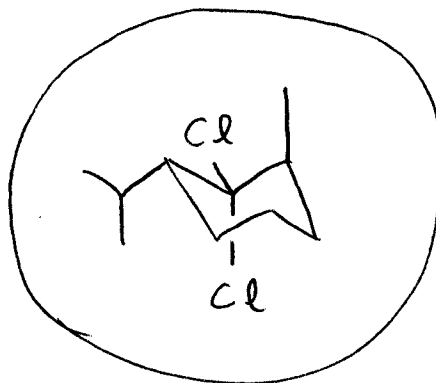
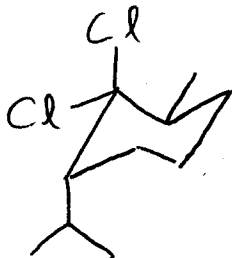
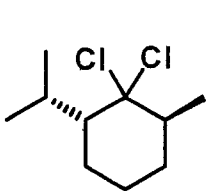
b.



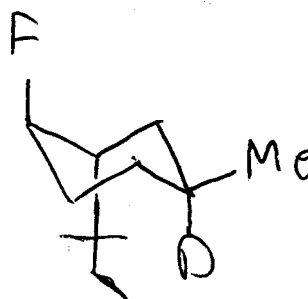
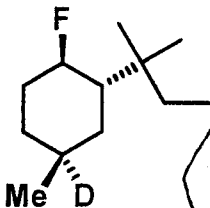
**Bonus:** Which is more stable? (Answer on bottom)

2. Draw the following molecules in **two** different chair conformations. Circle the most stable one.

a.



b.



**Bonus:** Structure on the left (t-Bu is equatorial)