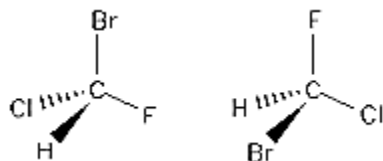


**Homework/Problem Set #5**  
**Chapter 5: Stereochemistry**

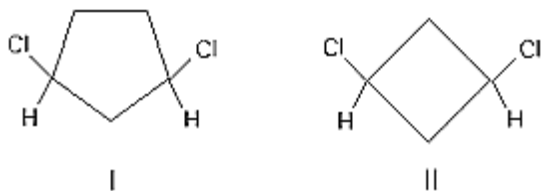
- 1)  
The two compounds shown below are:



Enantiomers; Diastereomers; Constitutional isomers; Identical; Different but not isomeric.

- 2)  
Calculate the specific rotation of compound A if a solution of a compound A (30.0 g/100 mL of solution) has a measured rotation of  $+15^\circ$  in a 2 dm tube

- 3)  
The molecules below are:

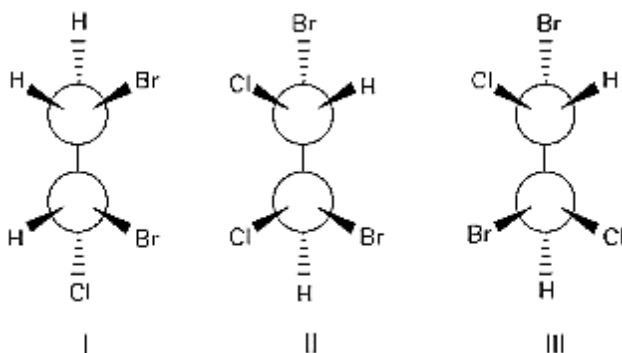


Constitutional isomers.  
Enantiomers.

Identical.  
None of these

Diastereomers.

- 4)  
Which molecule is achiral?



I

II

III

More than one of the above

None of the above

- 5) Draw the structure for the following compound. **Carefully** indicate **stereochemistry**.

(*R*)-4,5-dichloro-4-methyl-1-pentanol