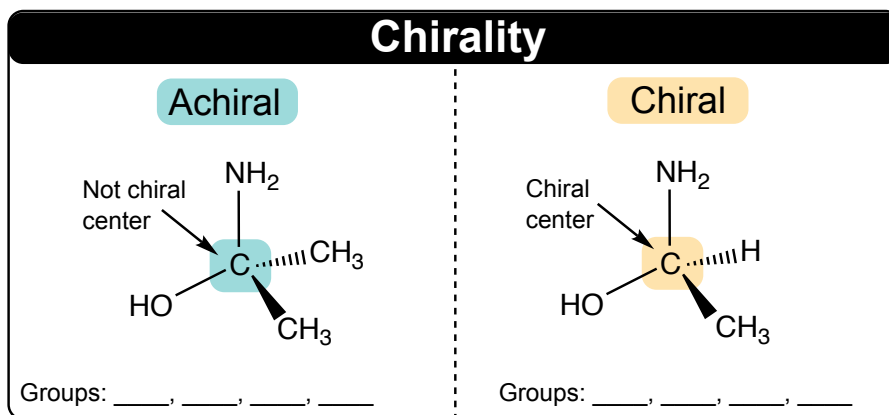
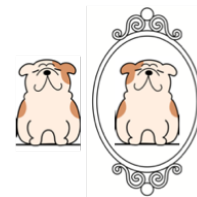


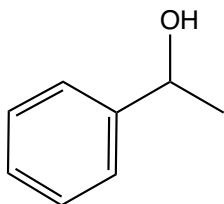
CONCEPT: CHIRALITY

- A property of molecules in which _____ images of molecules are _____ superimposable.
- Optical stereoisomers (_____): *chiral molecules* and possess 1 or more *chiral centers*.
 - **Chiral center**: a carbon connected to _____ unique groups.

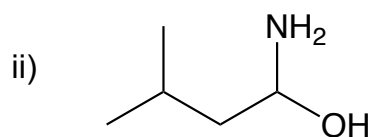
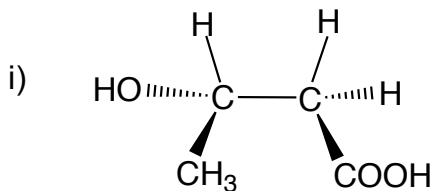


- Chiral molecules are optically _____: rotate plane polarized light.

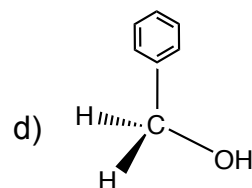
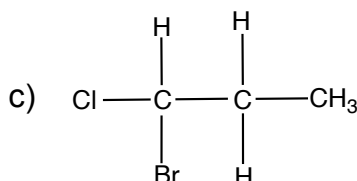
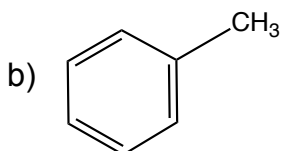
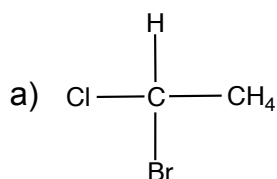
EXAMPLE: Identify the following molecule as chiral or achiral.



PRACTICE: Identify chiral centers in the provided optical isomers.



PRACTICE: Identify molecule(s) capable of rotating plane polarized light.

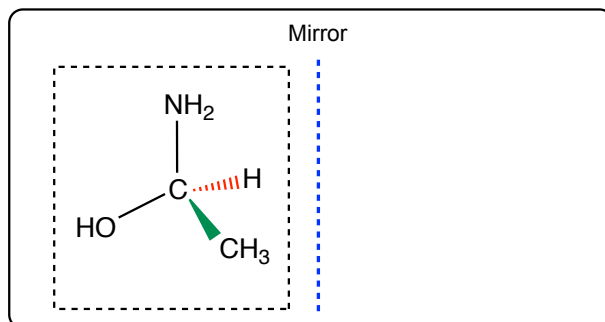


CONCEPT: CHIRALITY

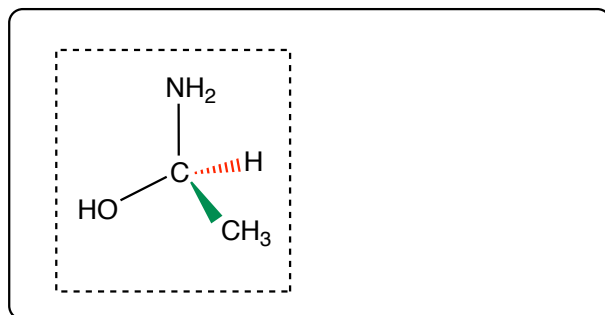
Drawing Enantiomers

- When drawing enantiomers of a chiral molecule, there are ____ methods available.

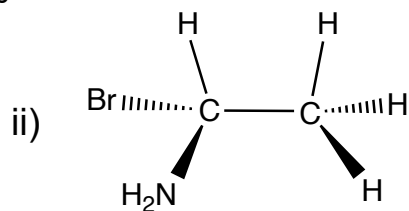
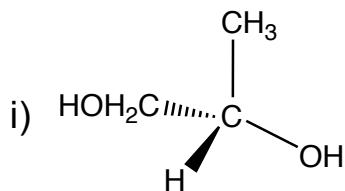
METHOD 1: Draw an image the molecule “_____” in the mirror.



METHOD 2: Change solid wedge to dashed wedge and dashed wedge to solid wedge on the _____ center.

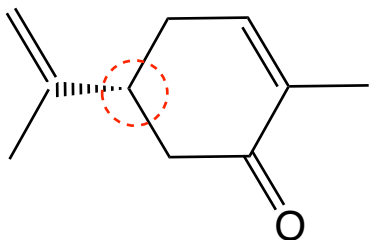


EXAMPLE: Draw enantiomers for each given chiral molecule using method 1.



CONCEPT: CHIRALITY

PRACTICE: Provide the enantiomer using method 2. (Hint: chiral center is circled in red.)



PRACTICE: Predict enantiomer for thalidomide compound given below.

