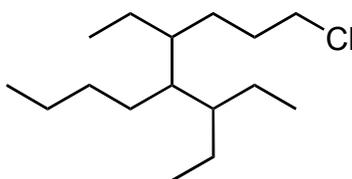


3A) (5 pts) How many stereoisomers are possible for the following compound?

Label all the chiral centers with \*.

Number of stereoisomers: \_\_\_\_\_

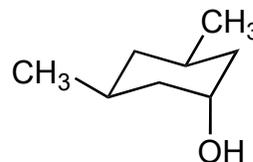


3B) (4 pts) For the following compound, indicate whether or not it is chiral and whether or not it has an enantiomer. Also, indicate whether or not it will rotate plane-polarized light.

chiral? \_\_\_\_\_

has an enantiomer? \_\_\_\_\_

rotate polarized light? \_\_\_\_\_

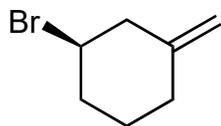


3C) (6 pts) What is the relationship of the following pairs of compounds?

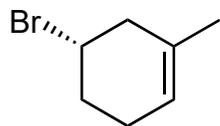
1 and 2 \_\_\_\_\_

3 and 4 \_\_\_\_\_

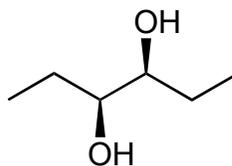
- A) constitutional (structural) isomers    D) the same compound  
B) enantiomers    E) unrelated  
C) diastereomers



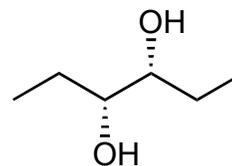
1



2



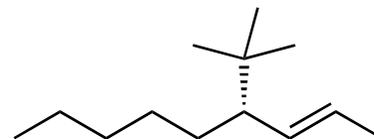
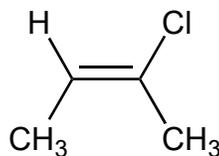
3



4

3D) (6 pts) Identify the configuration (e.g., R, S, *cis*, *trans*, *E*, *Z*) for each of the following compounds.

**You must show your work (show the priority of each group, etc.)**



Configuration: \_\_\_\_\_

\_\_\_\_\_