

5A) (6 pts) What is the relationship of the following pairs of compounds?

A) constitutional (structural) isomers

B) enantiomers

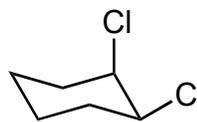
C) diastereomers

D) the same compound

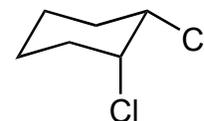
E) unrelated

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

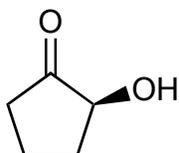
3 and 4 \_\_\_\_\_



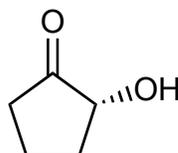
3



4

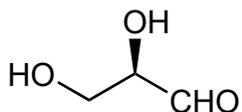


1

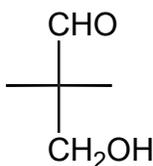


2

5B) (6 pts) Complete the Fischer Projection for (R)-glyceraldehyde and draw its enantiomer. Also, indicate whether or not (R)-glyceraldehyde is optically active (*i.e.*, will it rotate plane-polarized light?).



(R)-glyceraldehyde

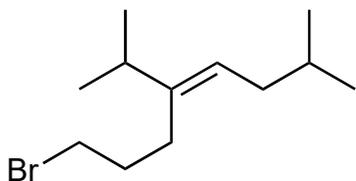


Fischer projection of  
(R)-glyceraldehyde

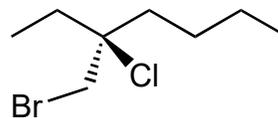
is (R)-glyceraldehyde  
optically active? \_\_\_\_\_

enantiomer of (R)-glyceraldehyde

5C) (6 pts) Identify the configuration (e.g., *R*, *S*, *E*, *Z*) for each of the following compounds.  
Show your work for full credit - show the priority of each group, etc.



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