

*II-1d ____C ____NC
**II-2d ____C ____NC

Chemistry 251
Worksheet 13

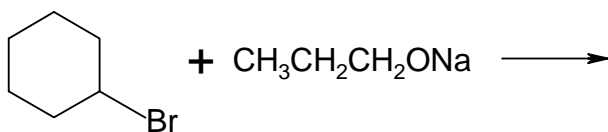
Name: _____

A. (3.0 pts.) Write the structures of the constitutionally isomeric ethers of molecular formula $C_5H_{12}O$ and give an acceptable name for each.

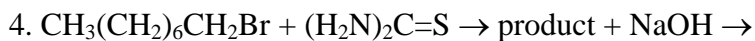
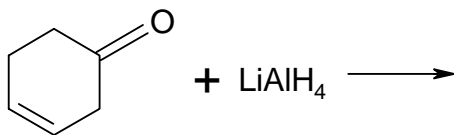
B. (4.0 pts.) Predict the major product(s) expected for each of the following reactions.



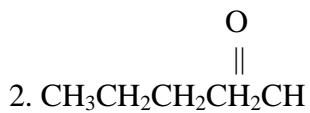
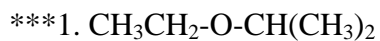
2.



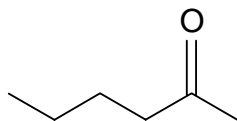
3.



C. (3.0 pts.) Outline a laboratory synthesis for each of the following starting with alcohols of 4 carbons or less and any needed inorganic reagents.



3.



Bonus (1.0 pts.) Periodic acid oxidation of a vicinal diol gives the following compound.
Give the structure of the original vicinal diol.

