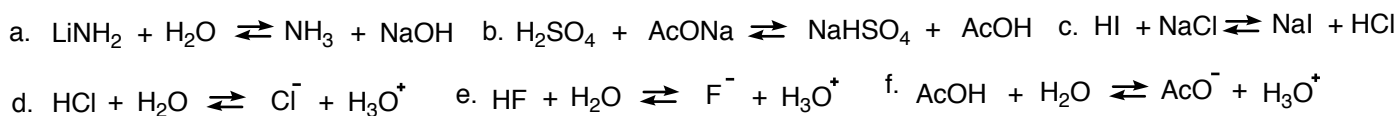


Worksheet 8

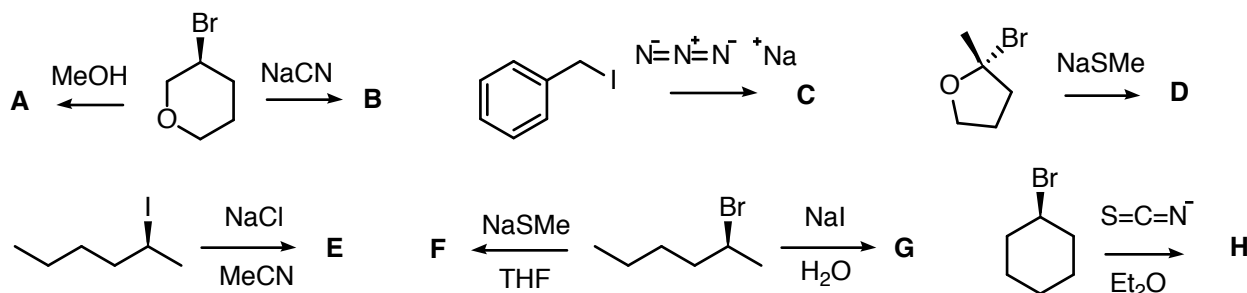
Acid/Base and Substitution Reactions

1. What direction do you anticipate the following acid-base reactions favoring. Explain your answer.

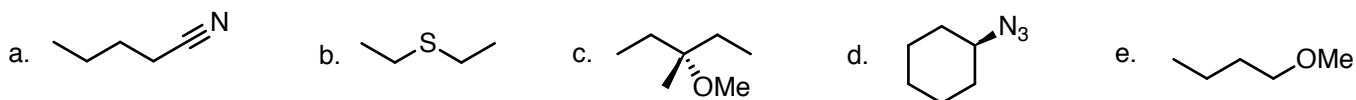


2. For each of the above reactions, draw the mechanism for both the forward and backward reactions.

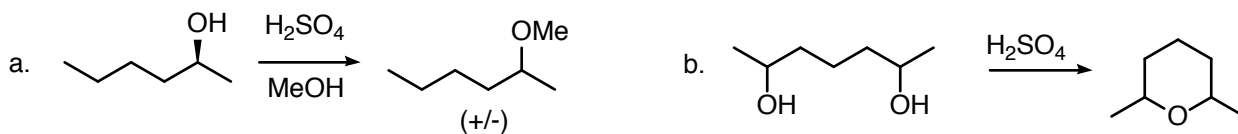
3. Show the product(s) of the following substitution reactions, and show a mechanism. Is the reaction SN1 or SN2?



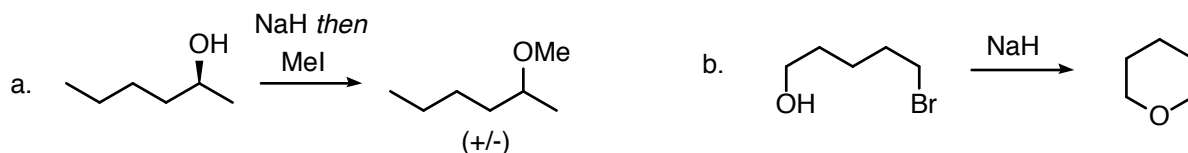
4. Provide reagents that could make the following molecules from two smaller molecules (nucleophile and electrophile) through substitution chemistry.



5. Alcohols can be converted to ethers with acid and a solvent of alcohols. This reaction combines acid-base chemistry with SN1 chemistry. With this information, show mechanisms for the following reactions.



6. Alcohols can be converted to ethers with base and alkyl halides. This reaction combines acid-base chemistry with SN2 chemistry. With this information, show mechanisms for the following reactions.



7. Show a mechanism that explain the following reaction outcomes.

