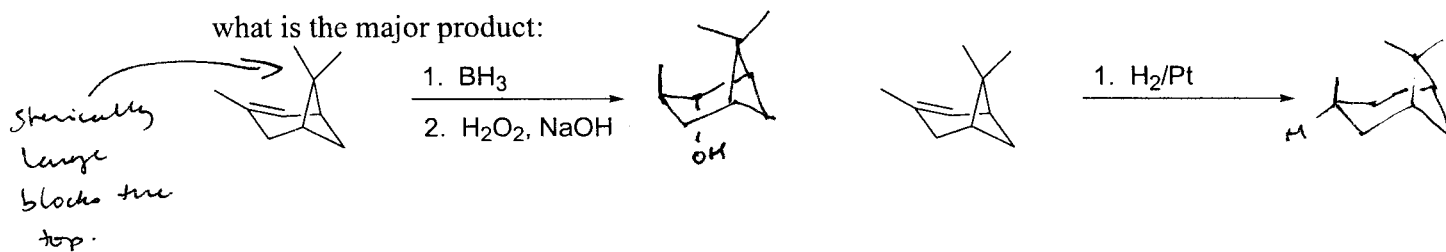
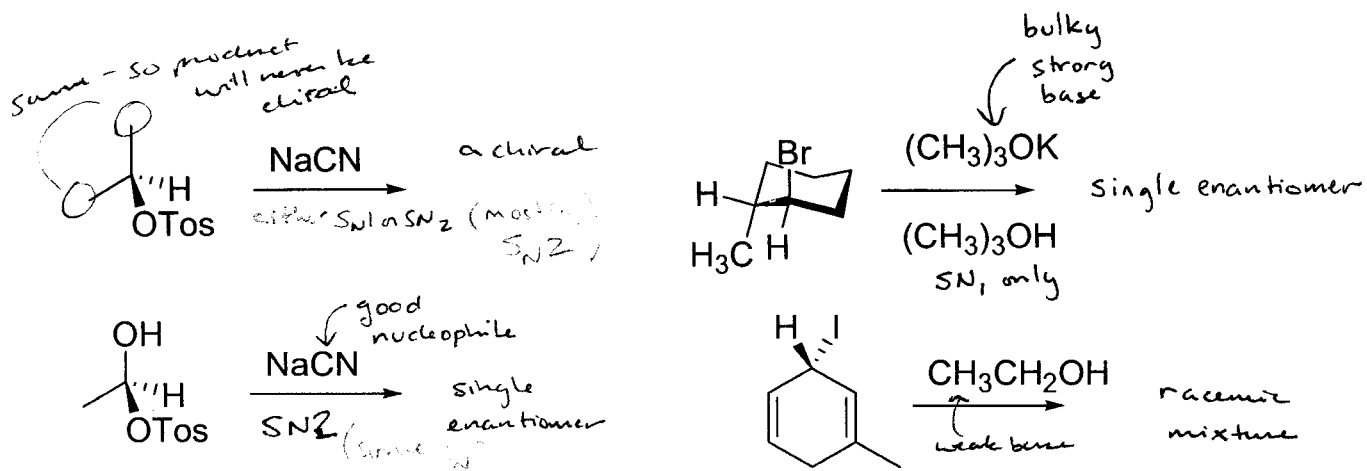


Chem 30A- Week 8

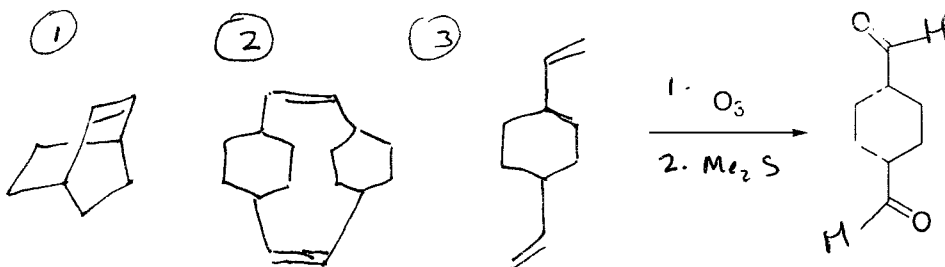
Warm up

For each of the reactions below say whether or not you will get an enantiomer, racemic mixture, diastereometric mixture, achiral product

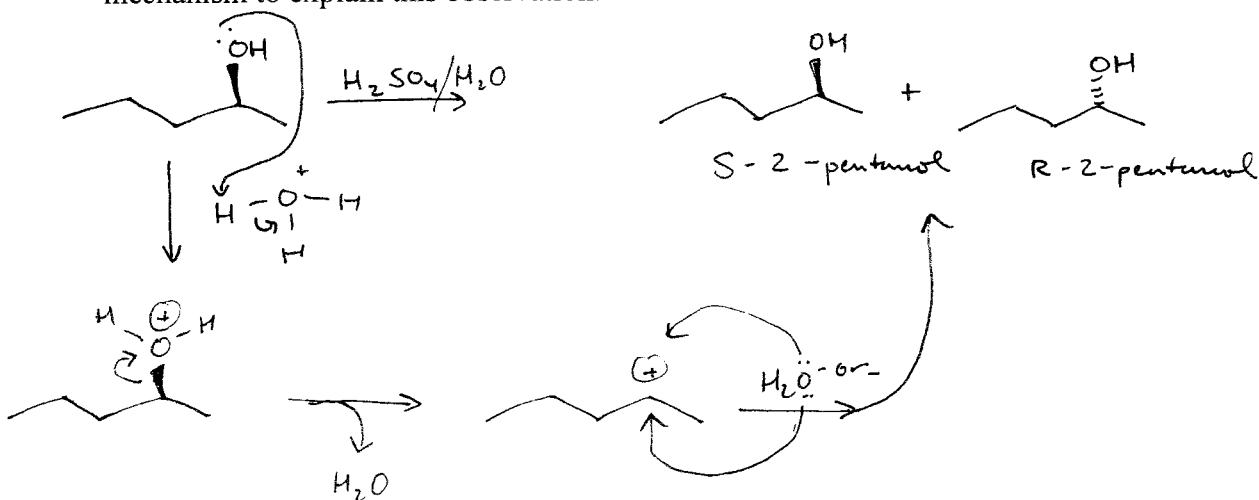


Group Exercises

- There are three starting materials that can make the following product. Two have the empirical formula C_8H_{12} , and the product is the only product formed in the reaction. The third reactant has the empirical formula of $C_{10}H_{16}$, and the other product is formaldehyde .



2. S-2-pentanol racemizes slowly over time in the presence of sulfuric acid. Write a mechanism to explain this observation.

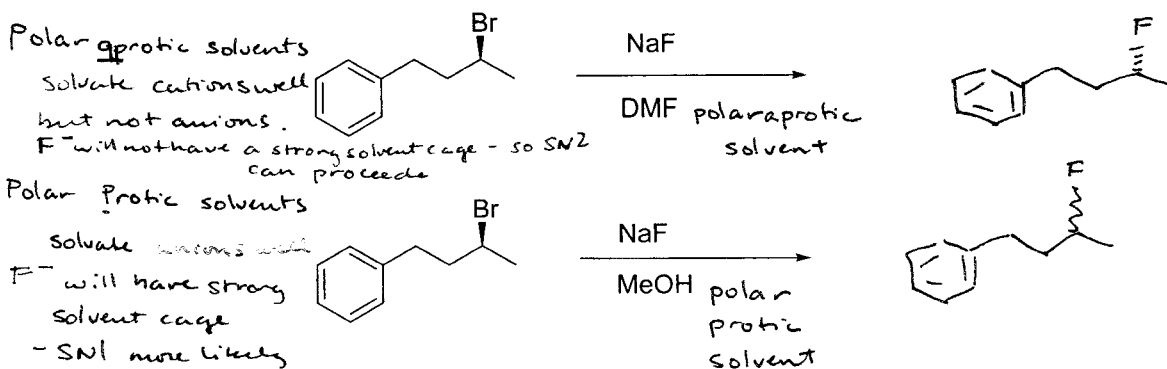


3. Provide the products for the following reactions.

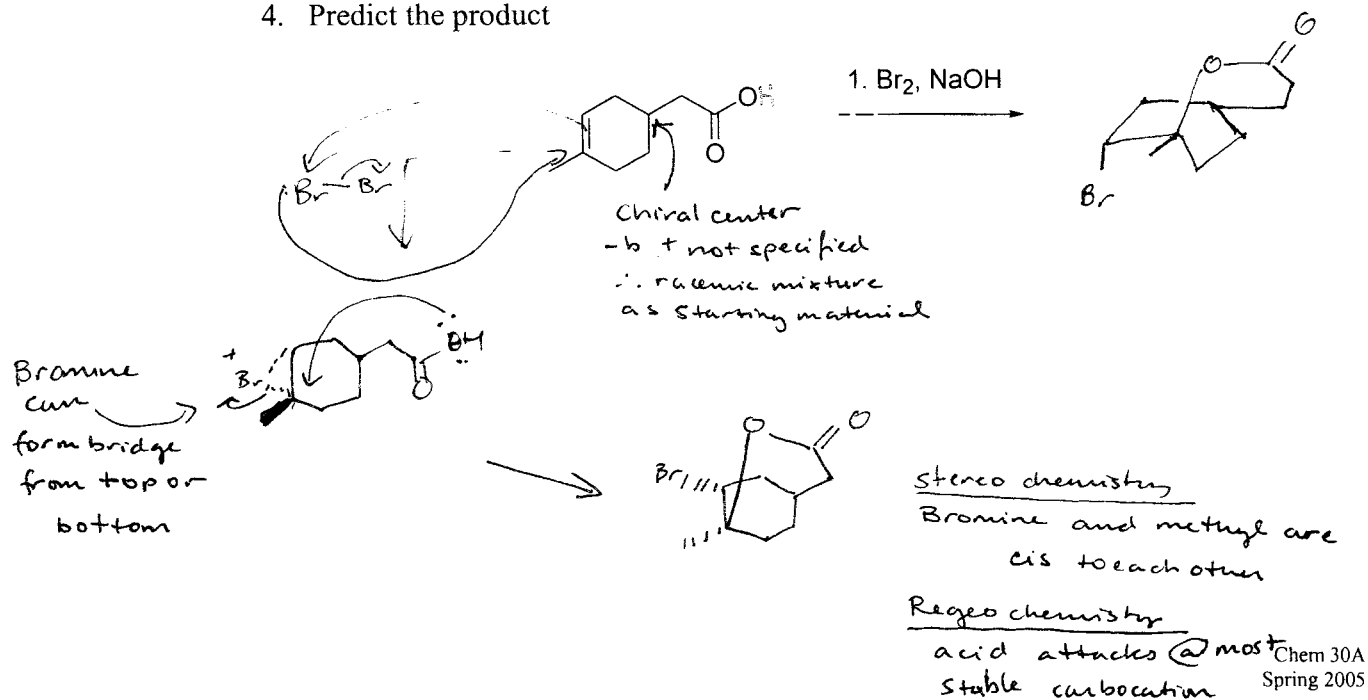
Remember -

Polar aprotic solvents
solvate cations well
but not anions.
F⁻ will not have a strong solvent cage - so S_N2 can proceed

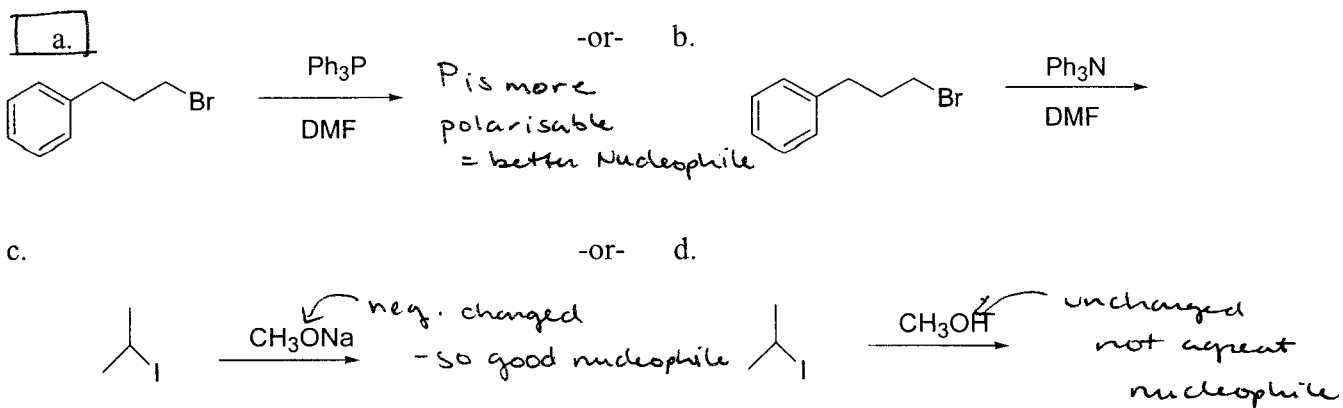
Polar protic solvents
solvate anions well
F⁻ will have strong solvent cage
- S_N1 more likely



4. Predict the product



5. Which reaction will proceed more rapidly?



6. Propose a mechanism for the following reaction (pinacol rearrangement).

