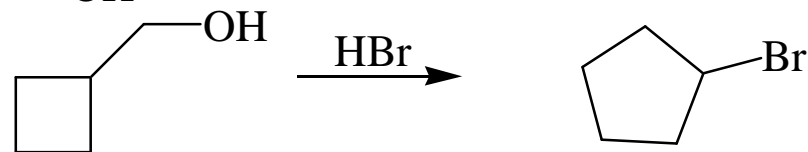
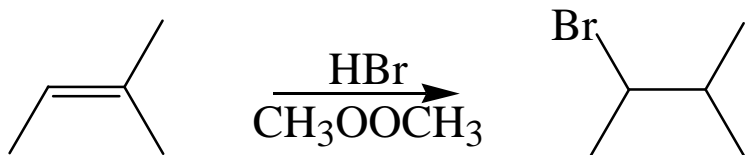
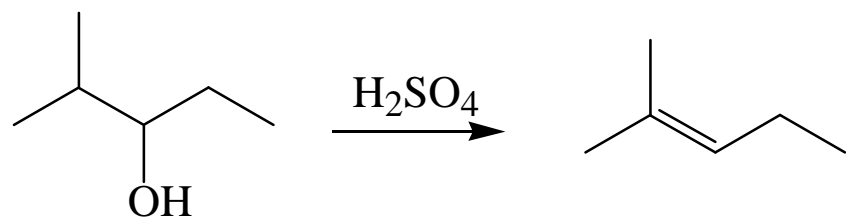
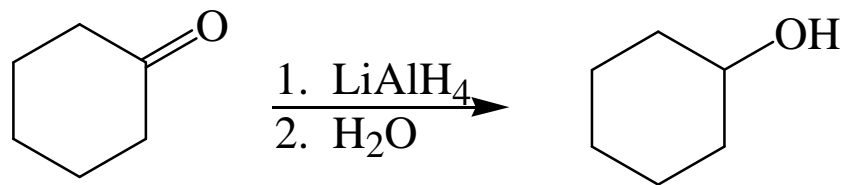
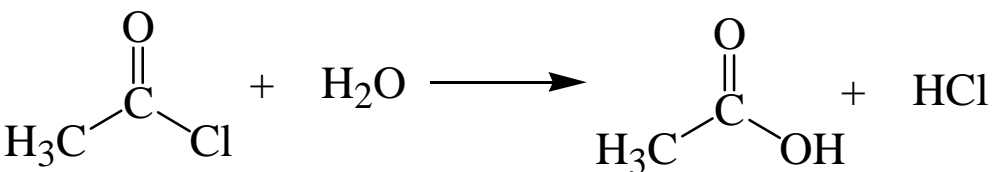


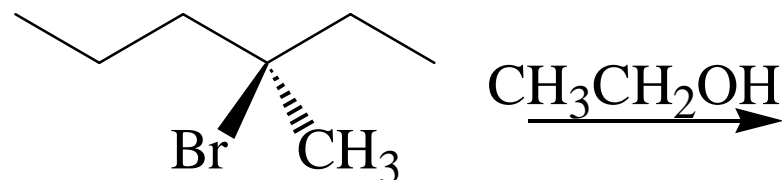
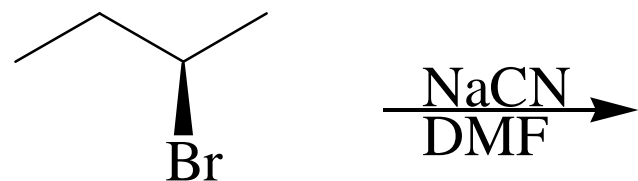
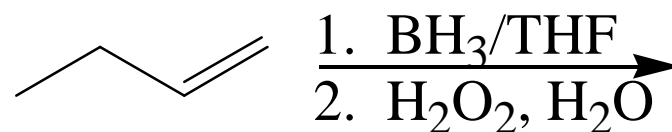
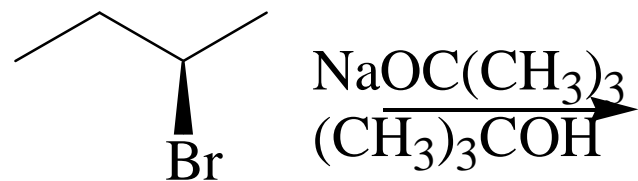
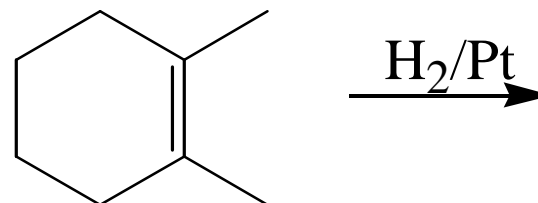
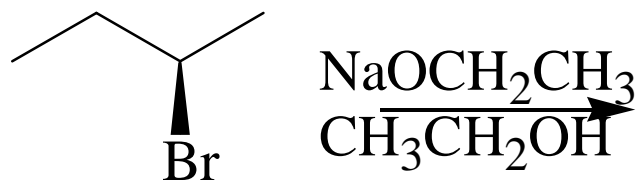
Unit II Problems

- Classify the following reactions based on structural change (substitution, elimination, addition, acid-base, rearrangement), oxidation state change (redox, non-redox) AND expected mechanism (polar, radical)

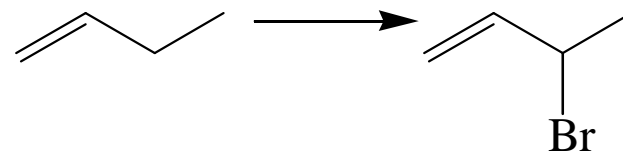
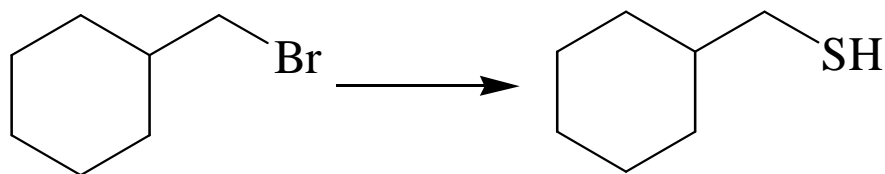
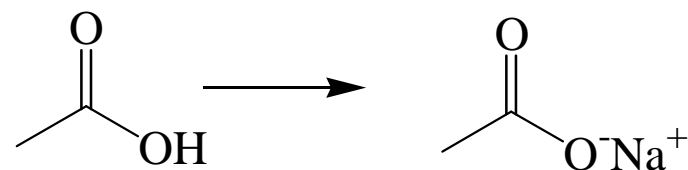
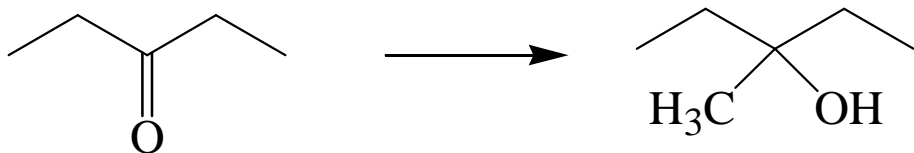
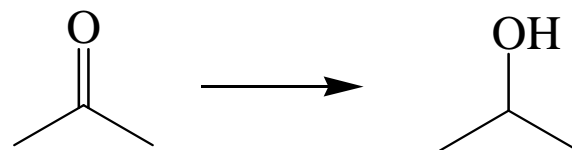
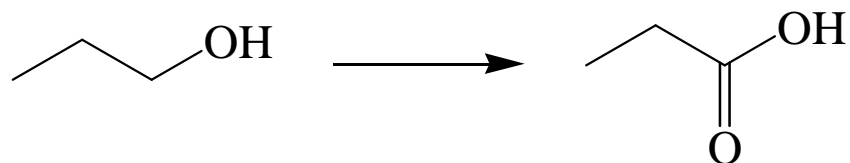


- Draw the mechanism for the reaction of HCl with 1-butene
 - Show both possible regiochemical outcomes
 - Indicate the major product
 - Draw a reaction energy diagram for the reaction you show, and use it to explain the preferred regiochemical outcome of the reaction

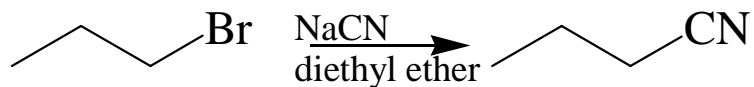
- Draw the major product of the following reactions, if two products are formed in equal amounts, draw both.



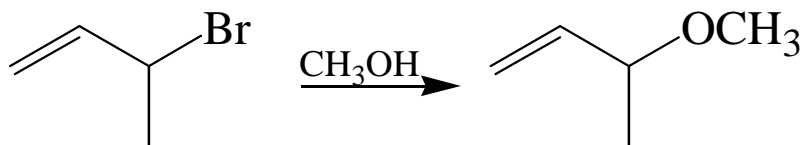
- Fill in reagents that will accomplish the following transformations



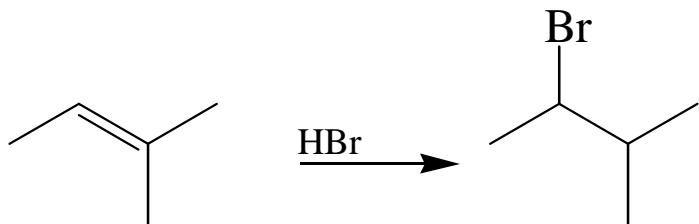
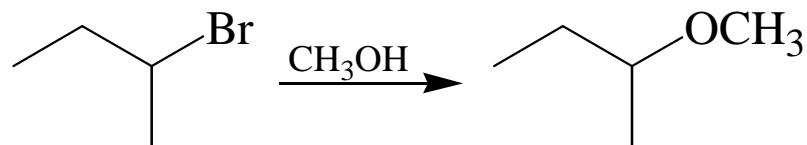
- Which reaction in each of the following pairs will occur more rapidly and why?



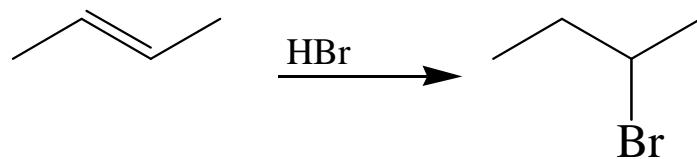
OR



OR



OR



- Develop as short a synthesis as possible for cis-2-pentene starting from methanol and ethanol as the only sources of carbon