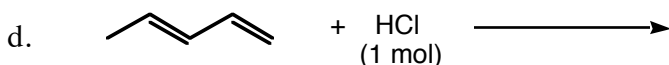
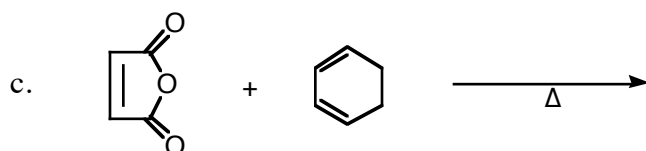
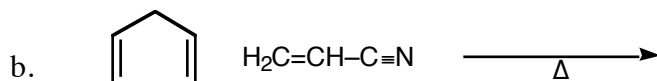
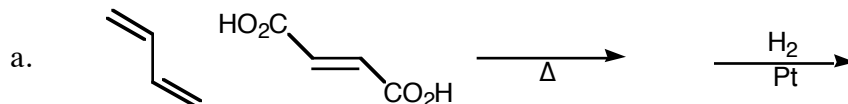


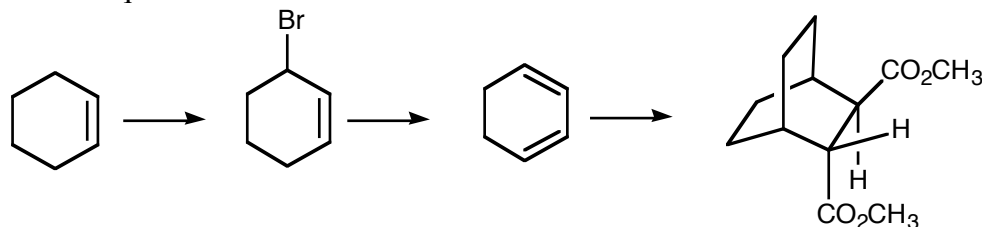
WORKSHOP for Chapter 10

Conjugation, Pericyclic Reactions

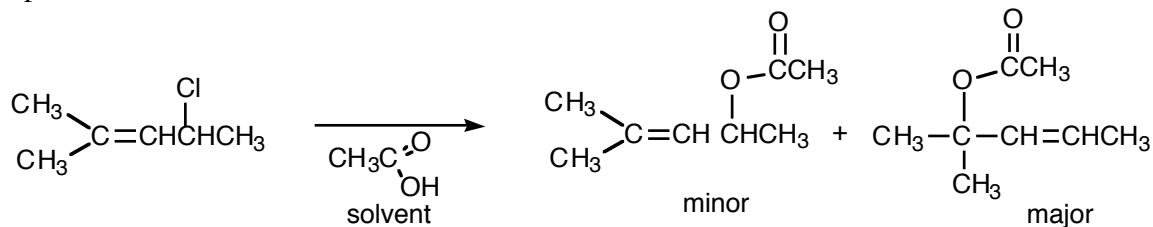
1. Give the products of the following reactions:



2. Specify the reagents, reactants and conditions you would use to carry out the following synthetic sequence.



3. When 4-chloro-2-methyl-2-pentene reacts with acetic acid (solvent), two substitution products are formed with the rearranged product predominating as shown below. When small amounts of acetate ion are added to the reaction mixture, no increase in rate is observed. Give a mechanism that accounts for these results. Explain clearly why two products are formed.



4. Draw the four pi molecular orbitals for 1,3-butadiene and their expected energy levels. Show how the energies of these MOs might be affected by including a 1,4 interaction as shown below.

