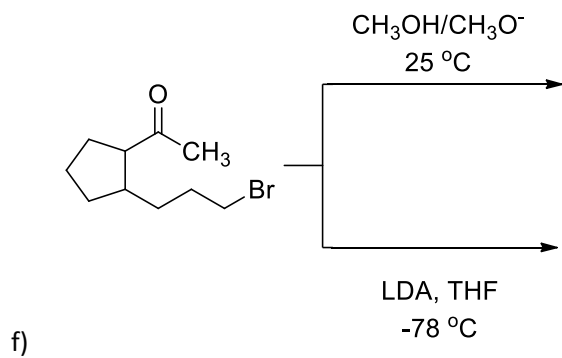
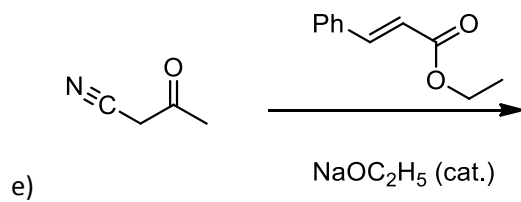
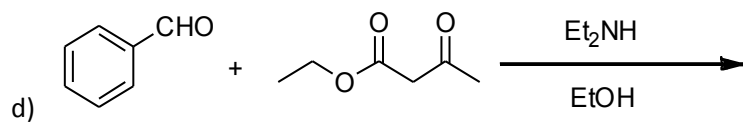
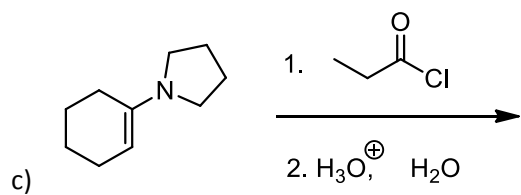
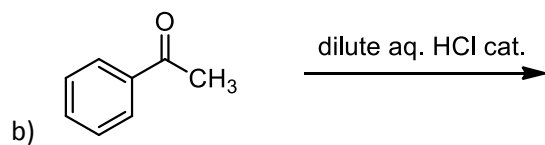
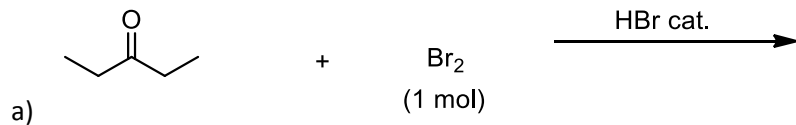


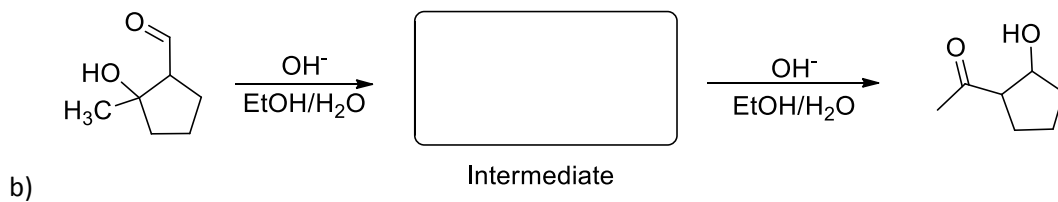
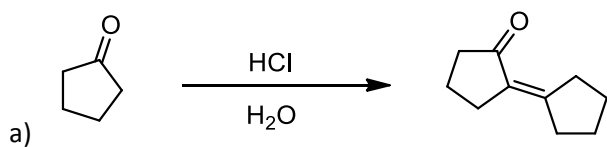
Chem322 Discussion Section

5/4/2014-5/10/2014

1. Please give the products for the following reactions:

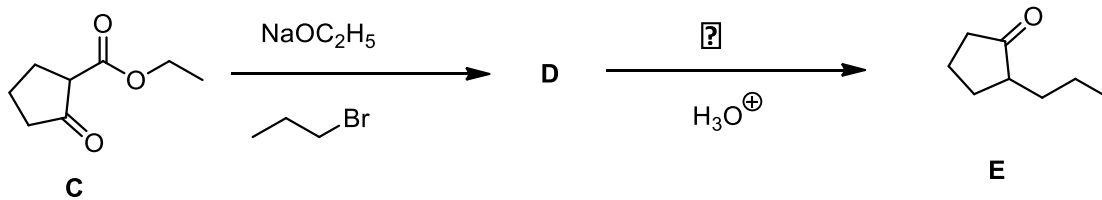


2. Please write a reasonable mechanism for the following transformation:



3. When compound C in ethanol is stirred with one molar equivalent of NaOC_2H_5 and one equivalent of $\text{CH}_3\text{CH}_2\text{CH}_2\text{Br}$, a new compound D is formed. When D is refluxed with 3N H_2SO_4 ,

the ketone E is formed. Propose a structure for D, and give a stepwise electron-pushing mechanism leading from C to D to E.



4. Please first provide a retro synthesis for the following transformation, then write down a forward synthesis, you may use any reagent with less than 3 carbons:

