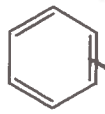
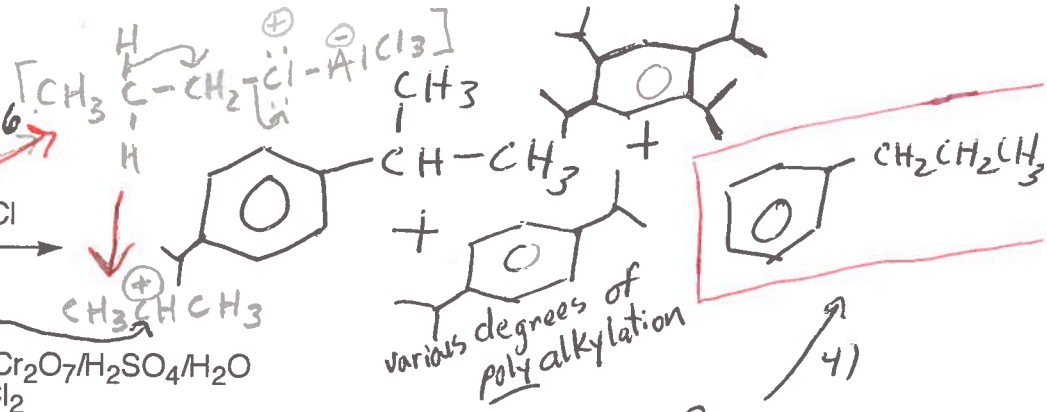
MAD ORG. CHEM "MIN." #16

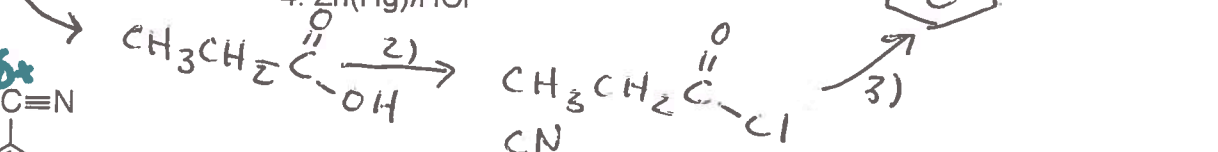
1. 

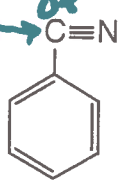
$CH_3CH_2CH_2Cl$ / $AlCl_3$ →



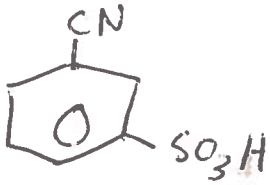
2. $CH_3CH_2CH_2OH$ →

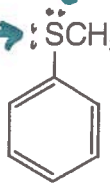
1. $Na_2Cr_2O_7/H_2SO_4/H_2O$
2. $SOCl_2$
3. / $AlCl_3$
4. $Zn(Hg)/HCl$



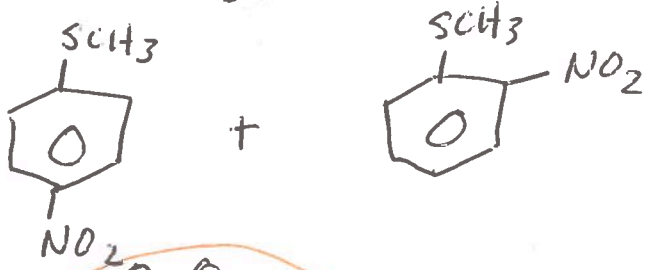
3. 

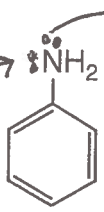
fuming H_2SO_4 →



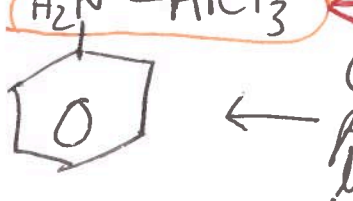
4. 

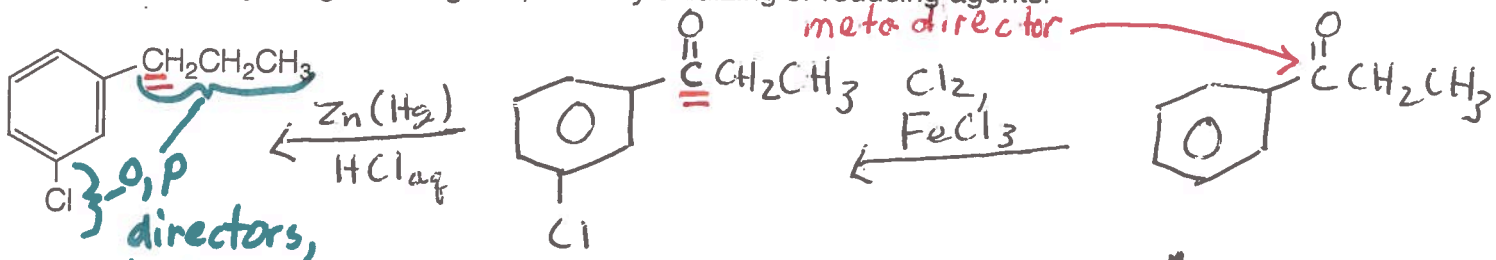
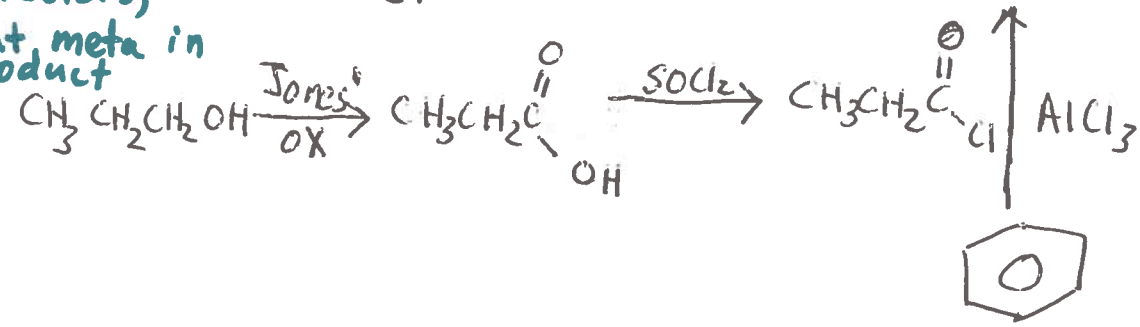
H_2SO_4 / HNO_3 →



5. 

CH_3CH_2Cl / $AlCl_3$ →



⊕ charged N prevents F.C. alkylation because strongly deactivating

6. Synthesize the following compound from benzene, alkenes, alkynes, or alcohols of three carbons or less, any inorganic reagents, and any oxidizing or reducing agents.