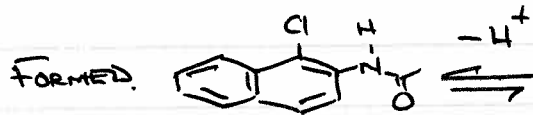
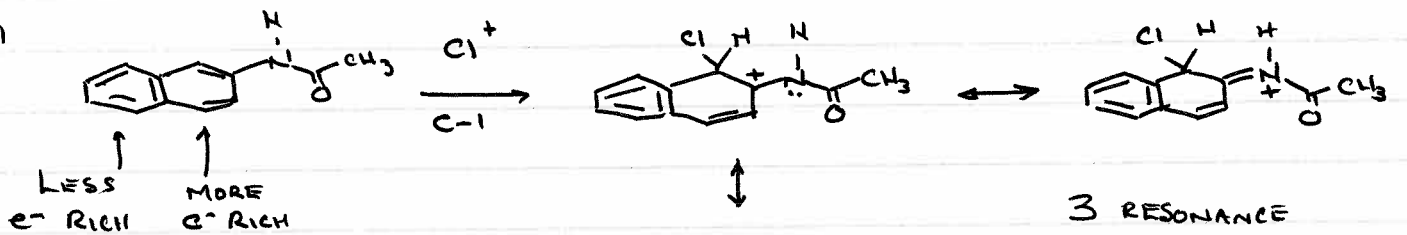
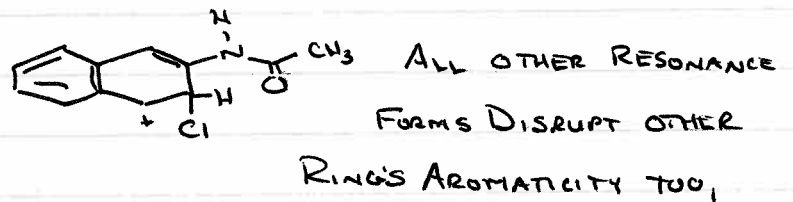
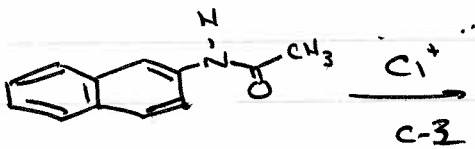


1a)

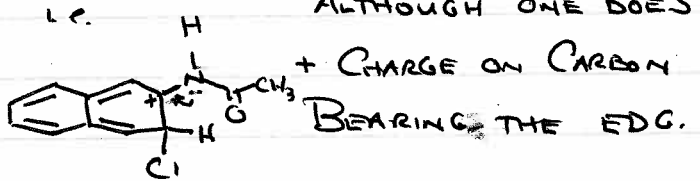
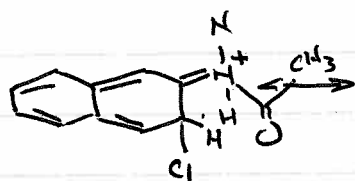


∴ BEST

3 RESONANCE FORMS BEFORE DISTURBING OTHER RING'S AROMATICITY

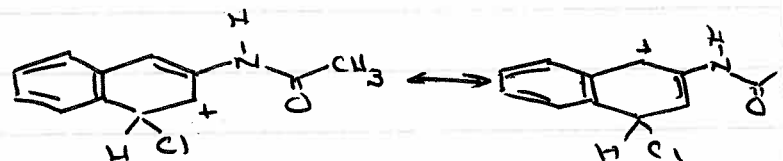
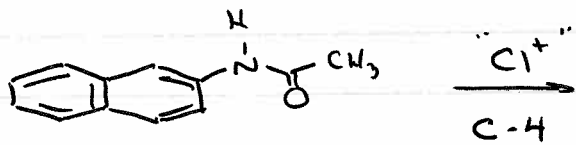


ALL OTHER RESONANCE FORMS DISRUPT OTHER RING'S AROMATICITY TOO, ALTHOUGH ONE DOES PUT



+ CHARGE ON CARBON BEARING THE EDG.

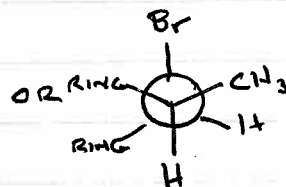
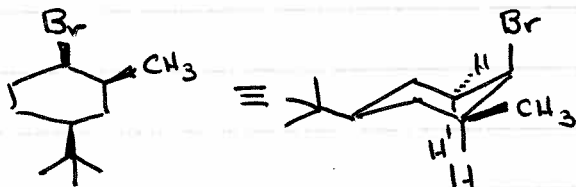
NOT AS GOOD



2- RESONANCE FORMS BEFORE INVOLVING OTHER RING AND NOTHING ON THE C-BEARING THE EDG.

∴ NOT AS GOOD

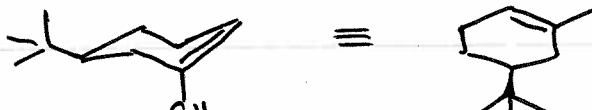
b)



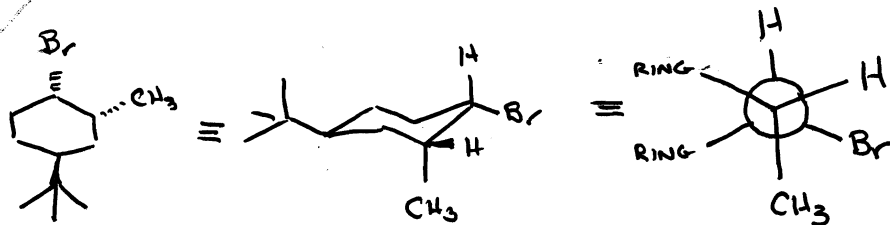
- HAS ANTI (PERIPLANAR) H + Br RELATIONSHIP
- ALL READY TO ELIMINATE

NaOEt

NOT HINDERED BASE, SO ZAITSEV (MOST SUBST.) ALKENE

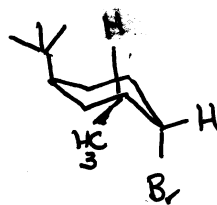


FAST E2 ELIMINATION



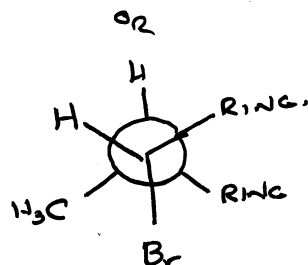
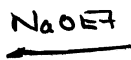
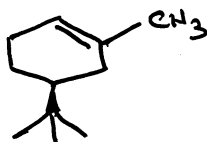
Br IS EQUATORIAL
 - NO ANTIPERIPHERAL C-H
 FOR E-2

THEREFORE, MUST
 INVERT TO



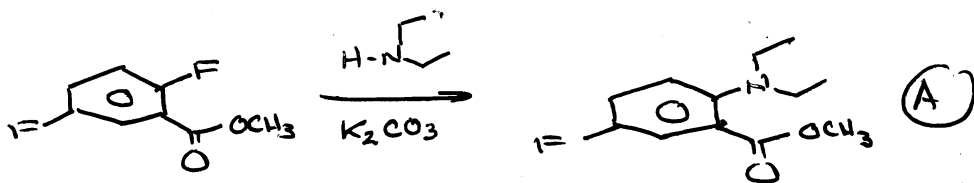
ONLY A VERY
 SMALL %
 OF MOLECULES

SO MUCH, MUCH SLOWER

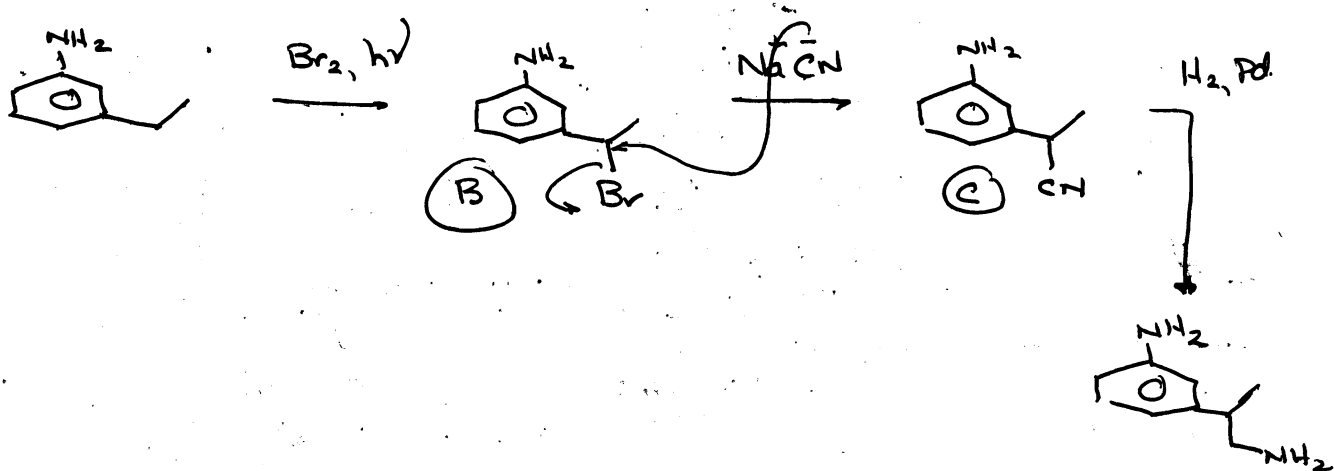


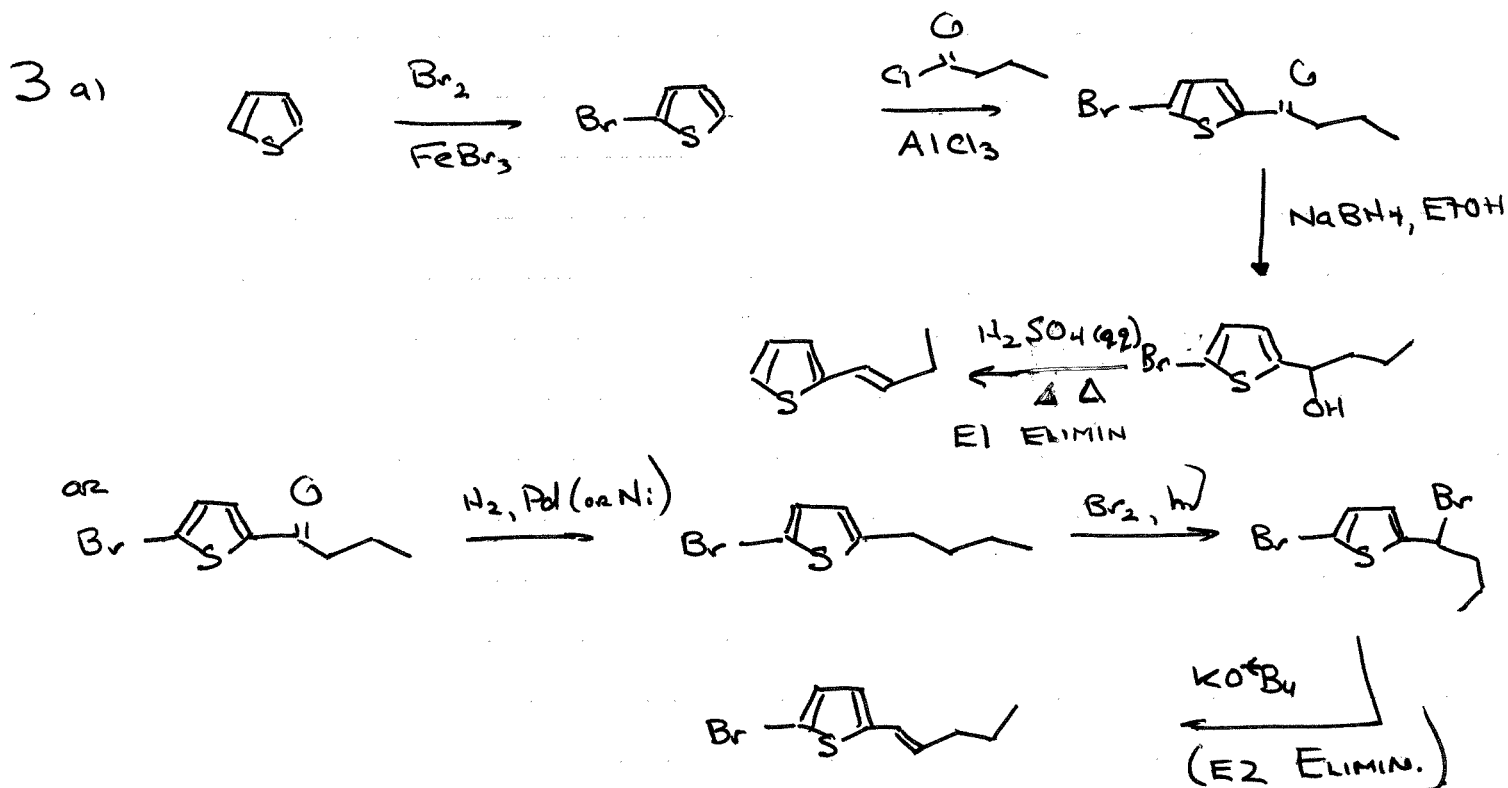
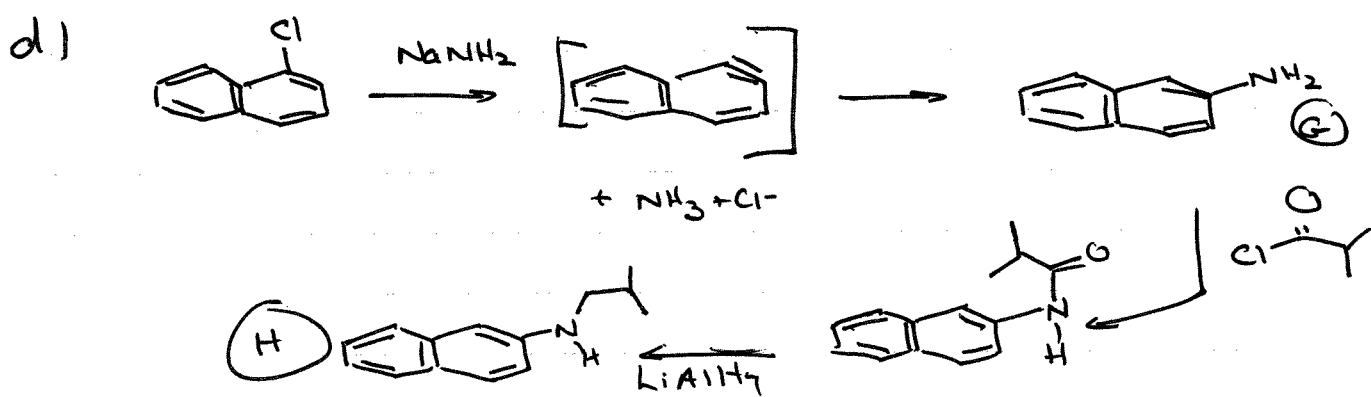
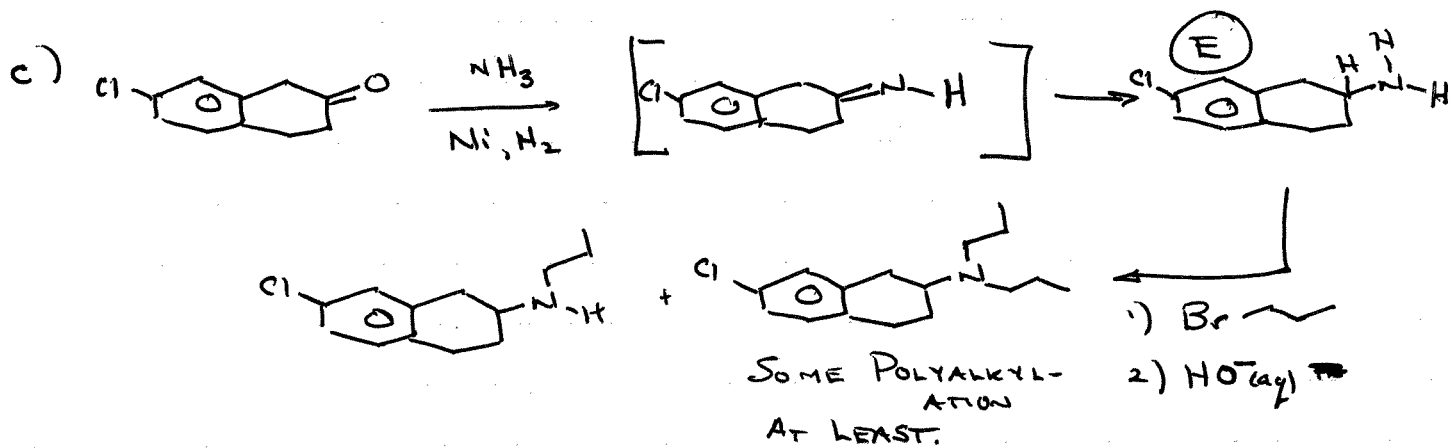
NOW ANTIPERIPHERAL
 TO C-H

2 a)



b)





EITHER ROUTE IS FINE.

b)

