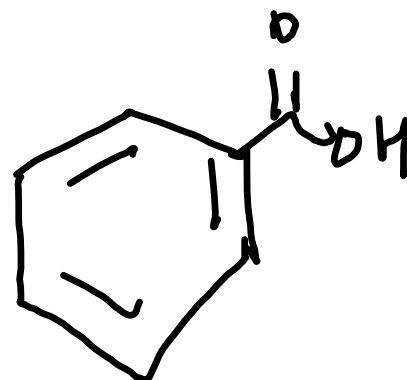
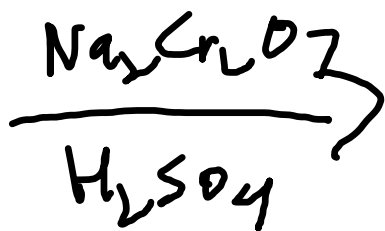
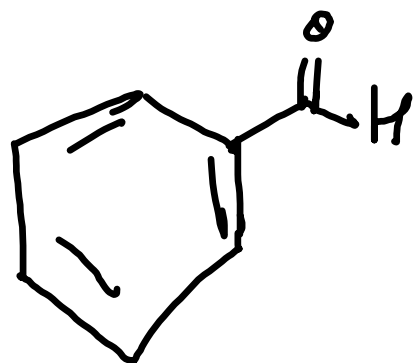


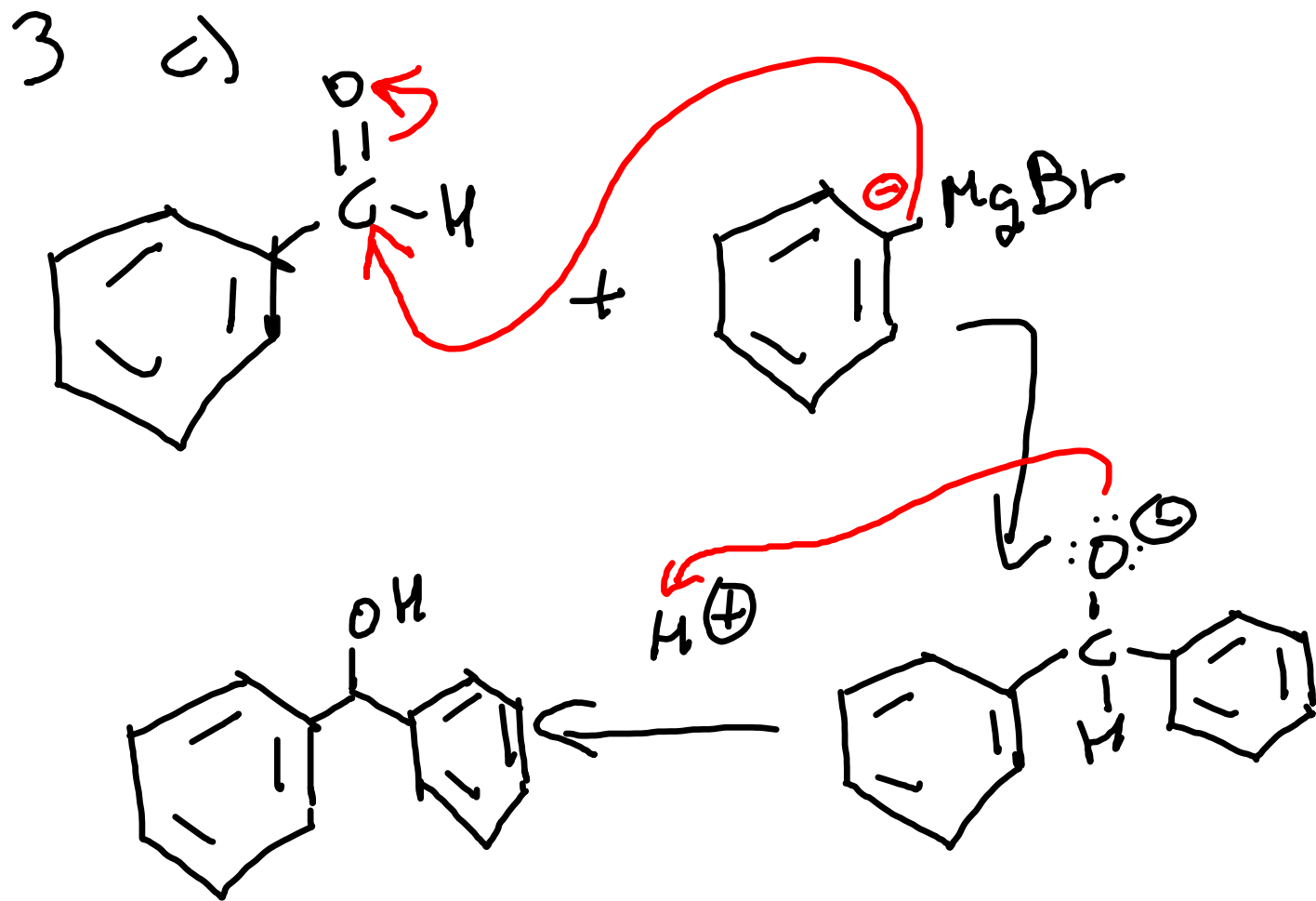
PROBLEM 3

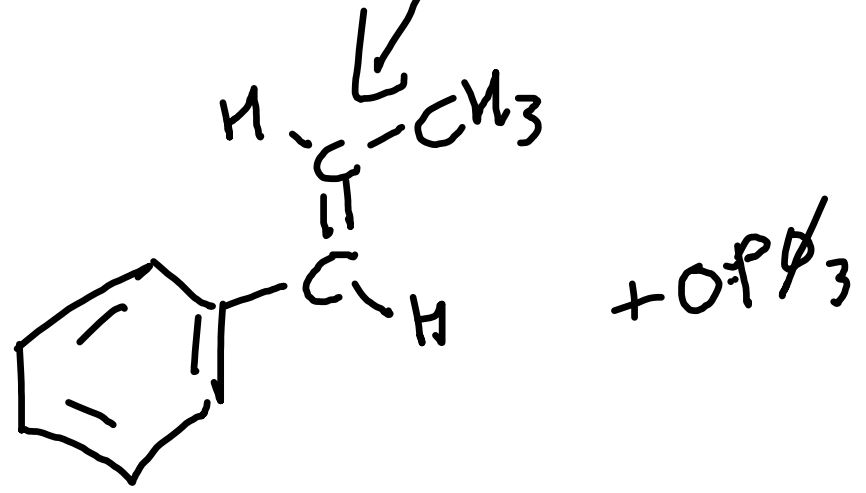
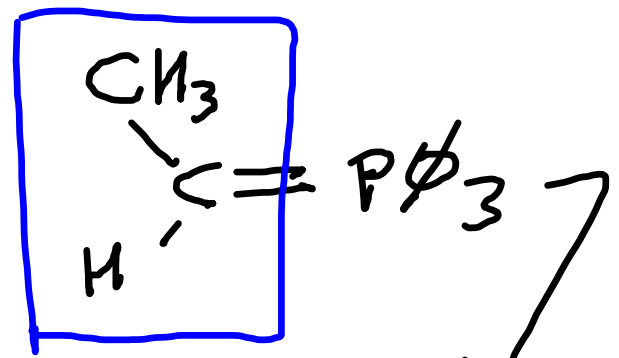
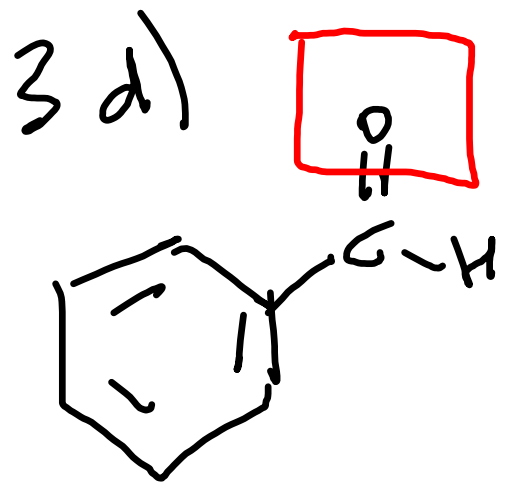
a)



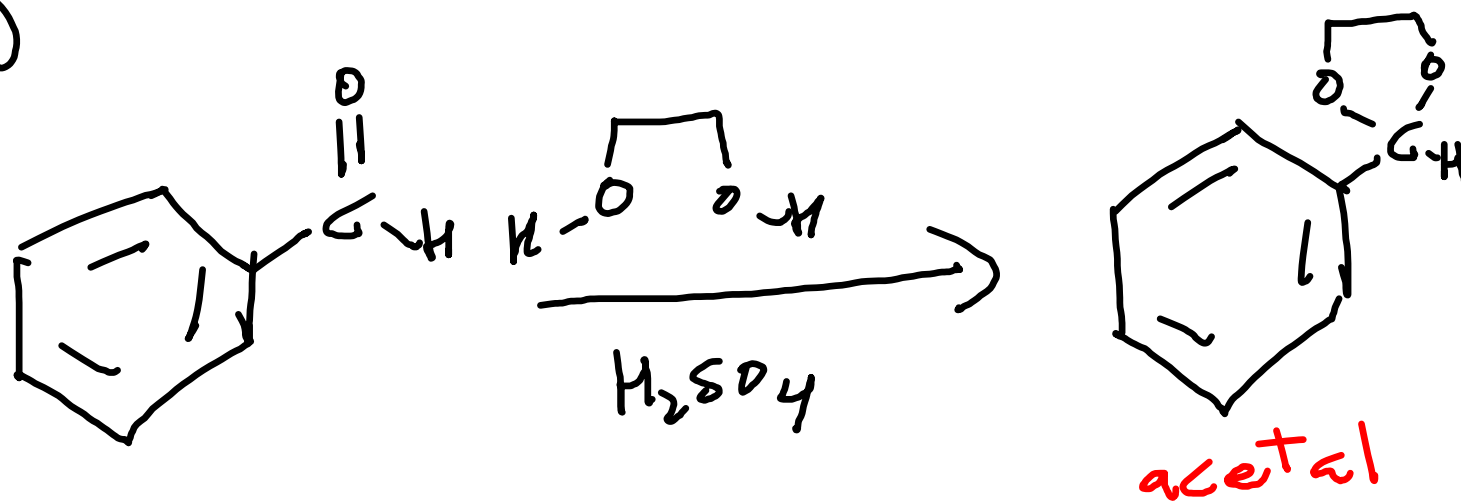
b)



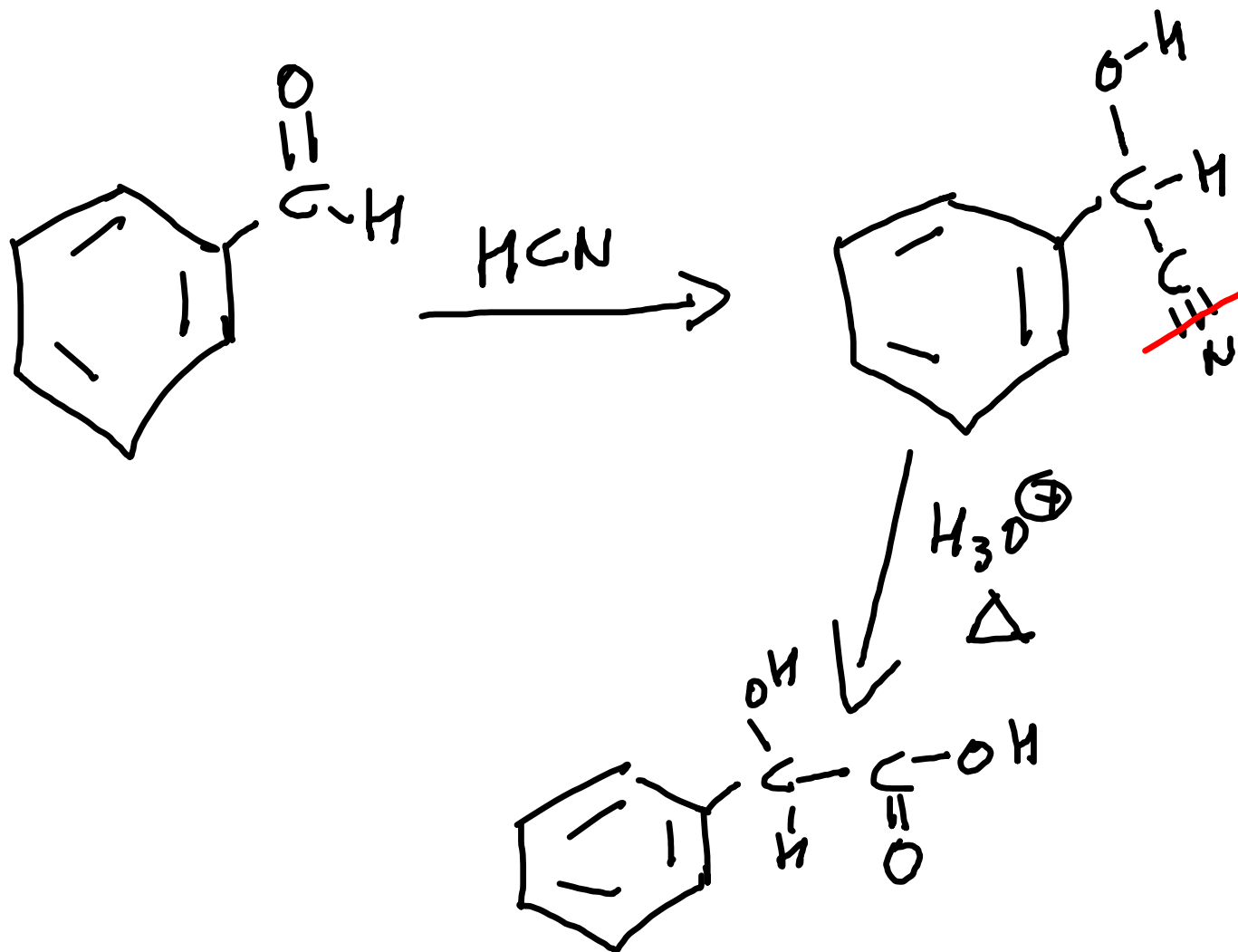


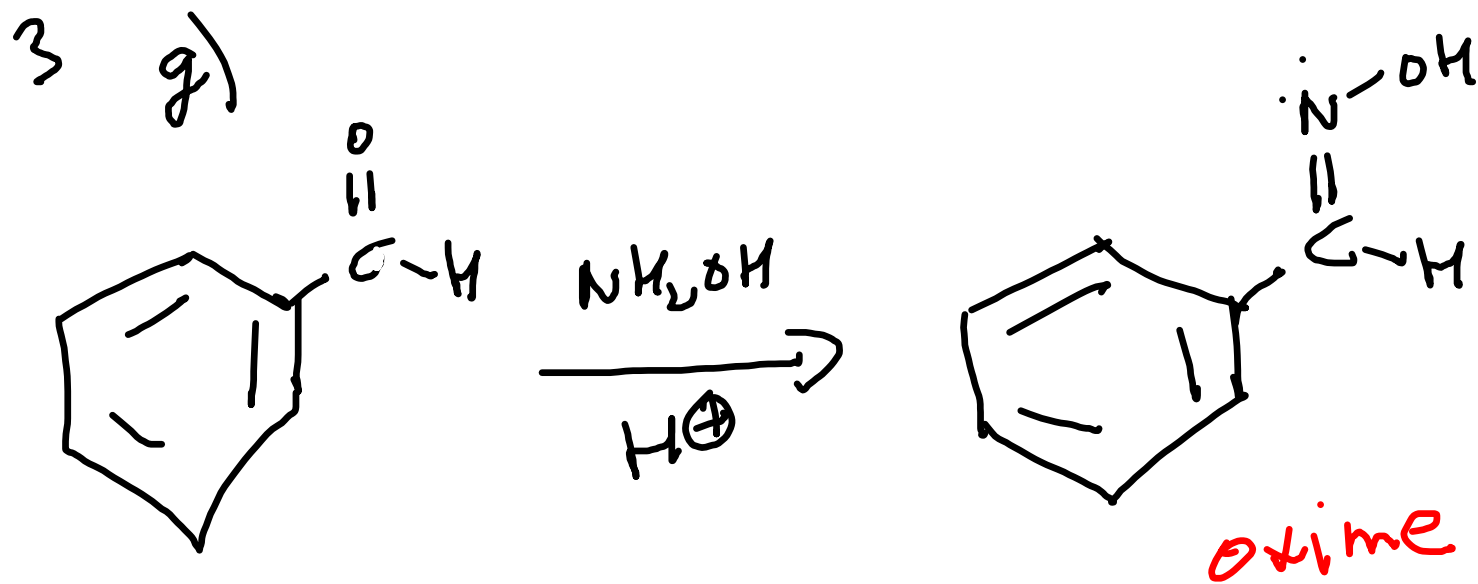


3 e)

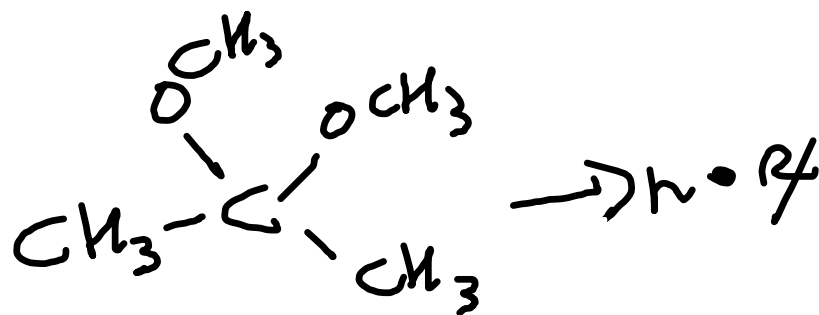
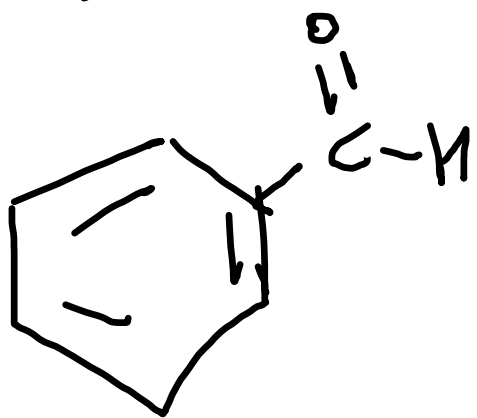


3 f)





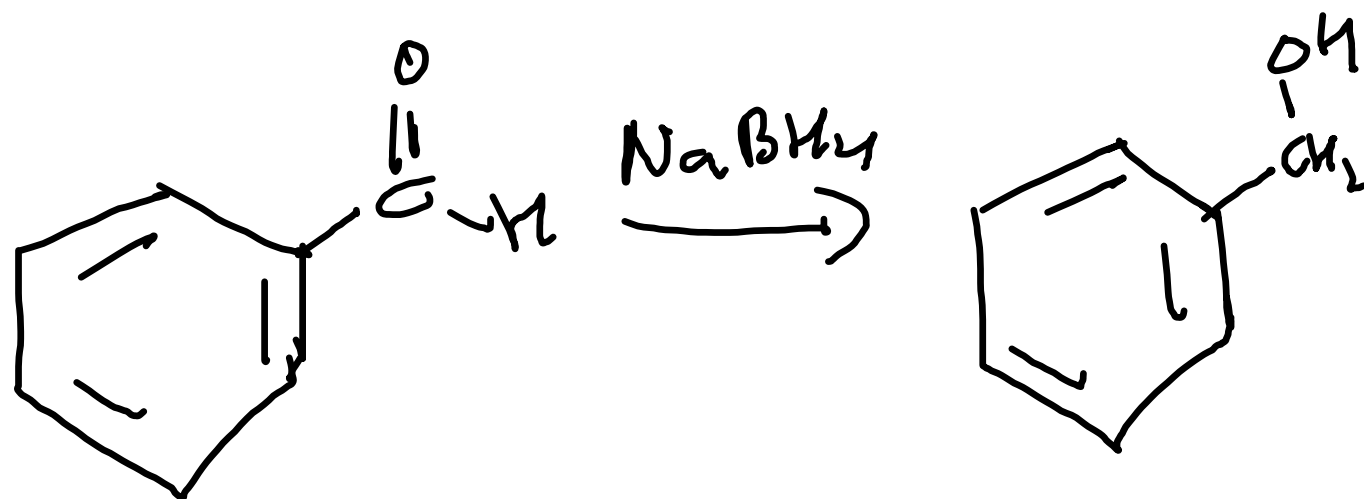
3 h)



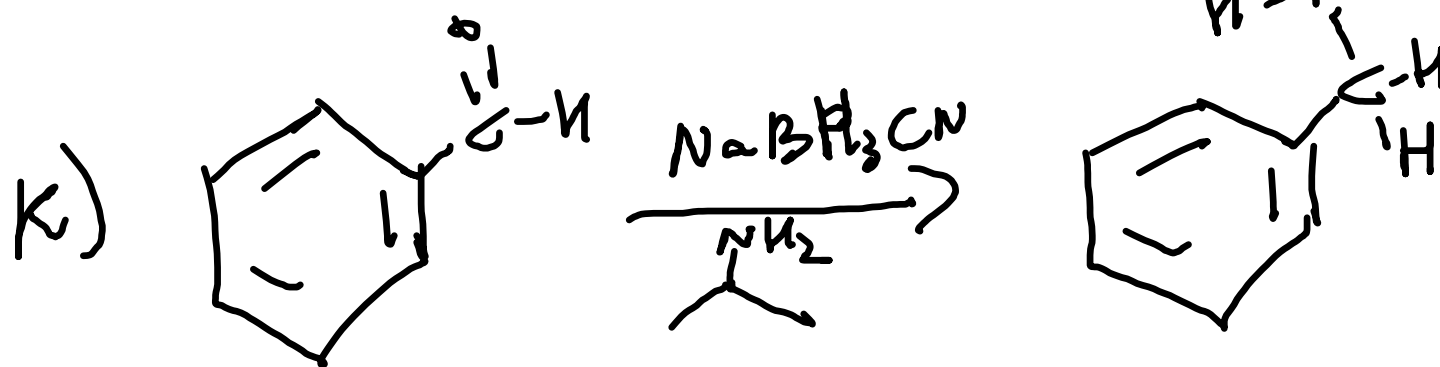
acetone
dimethyl
ketal



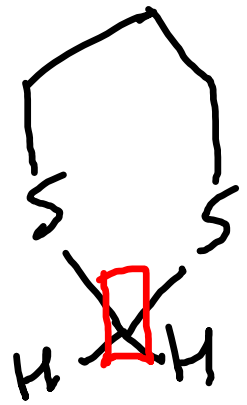
3 i)



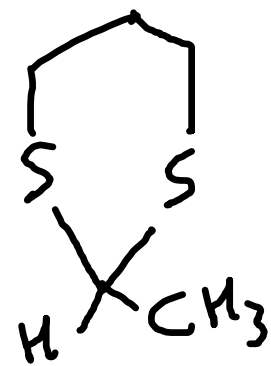
j) NaBH_3CN \rightarrow no rxn



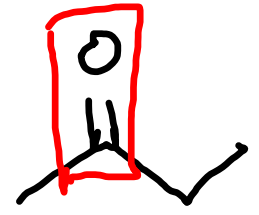
4) a)



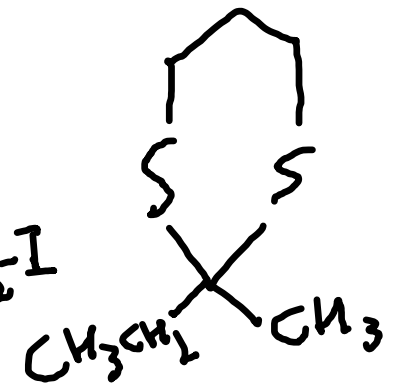
\downarrow n-BuLi

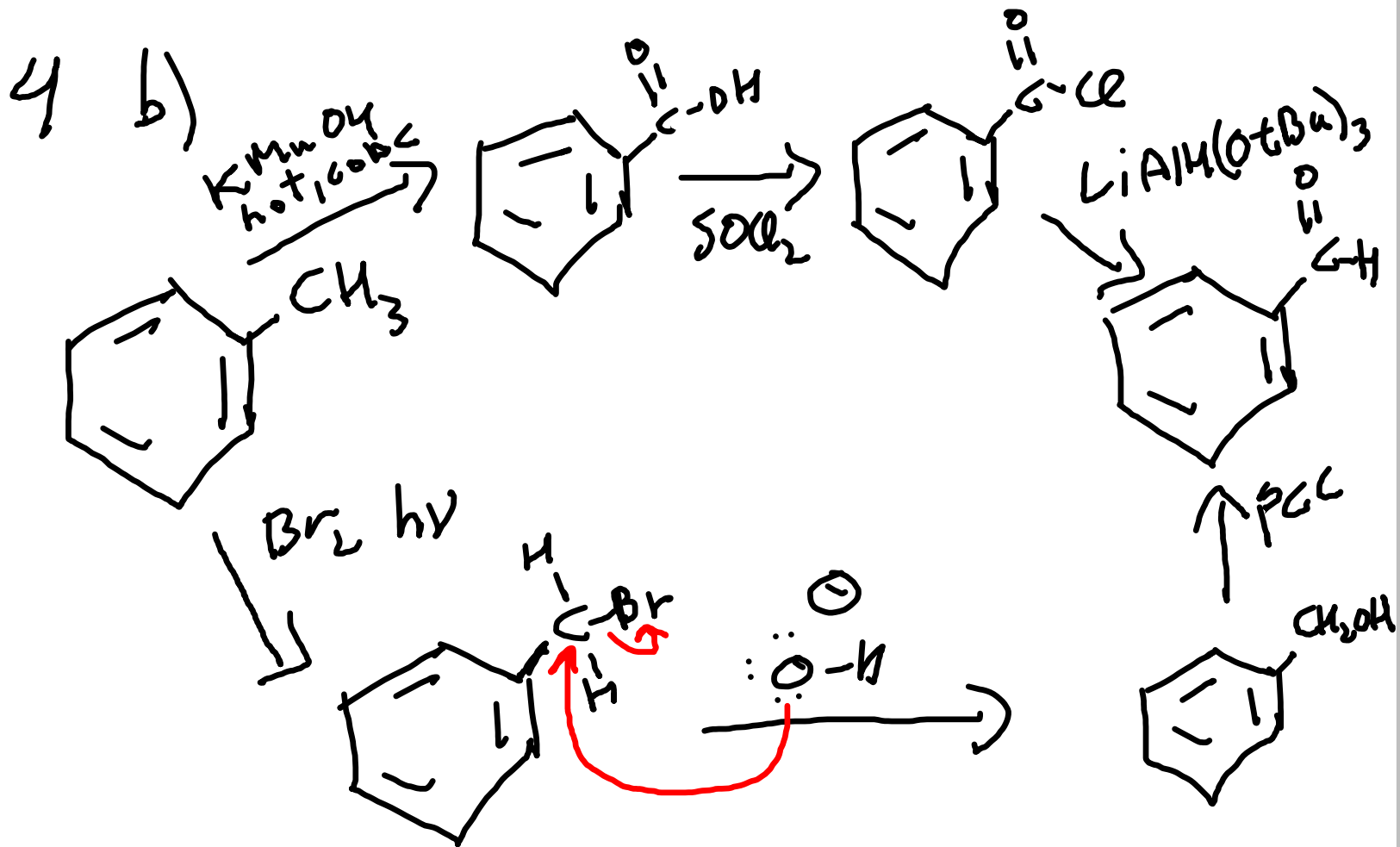


1) n-BuLi
2) $\text{CH}_3\text{CH}_2\text{-I}$

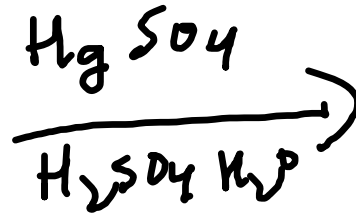
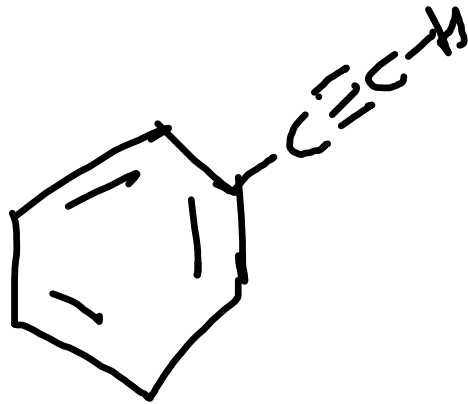


\uparrow HgCH_2
 \downarrow H_3O^+

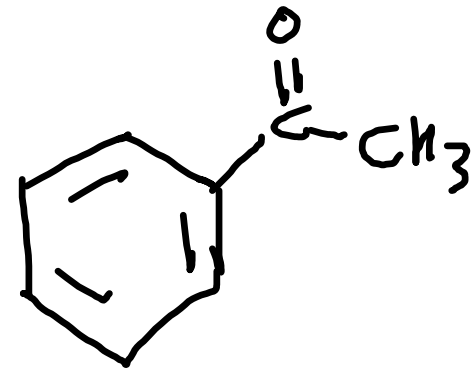




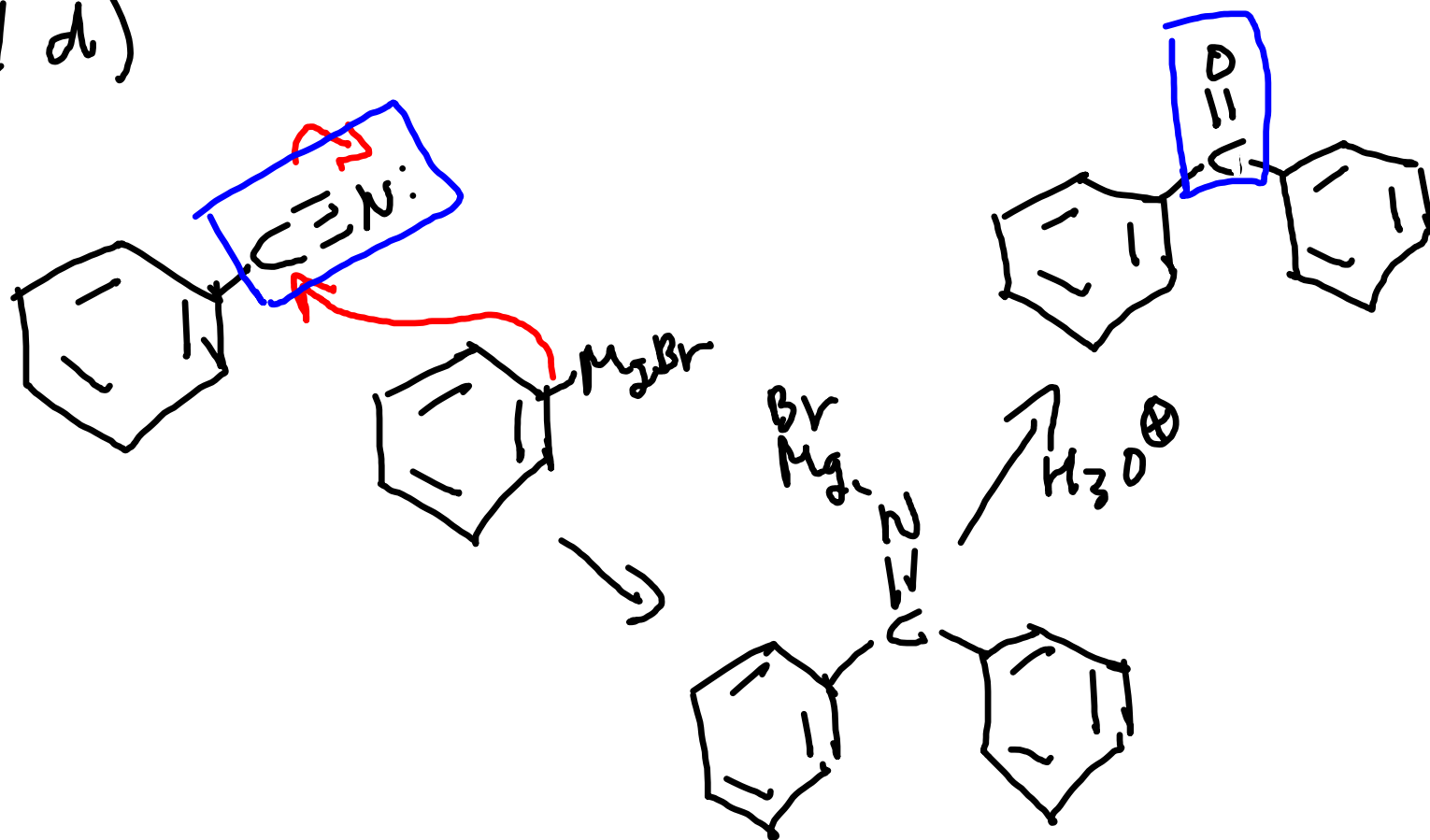
4 c)



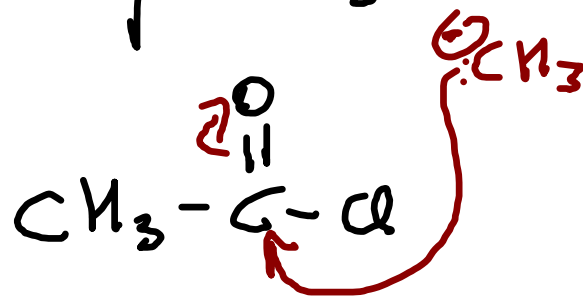
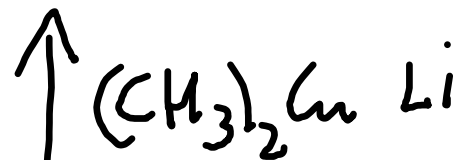
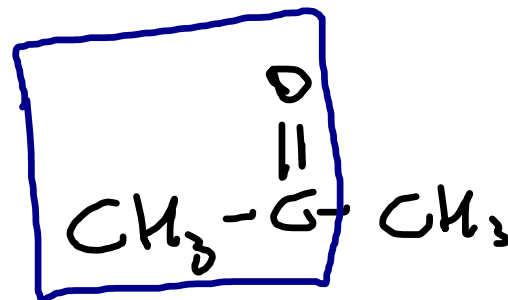
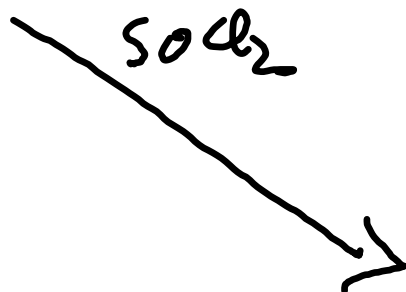
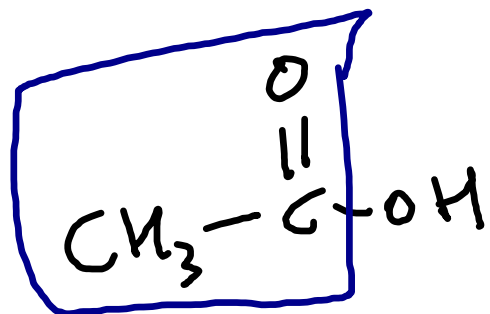
MARK
ADD
 H_2O



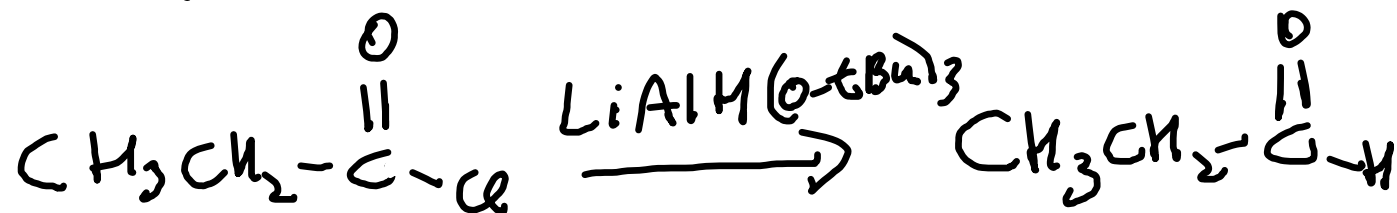
4 d)



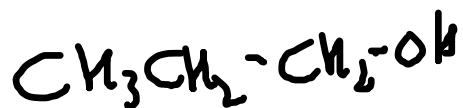
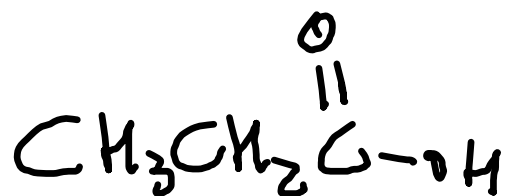
4 e)



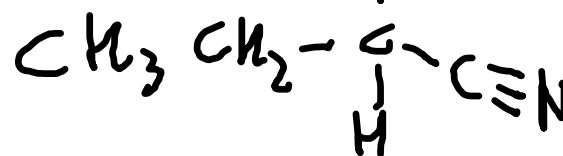
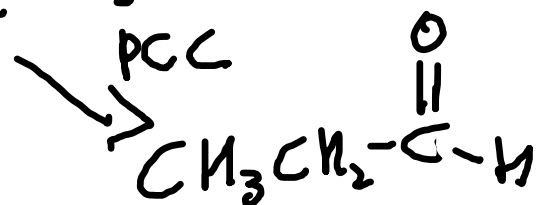
4 f)



4 g



PCC



α-hydroxy acid

