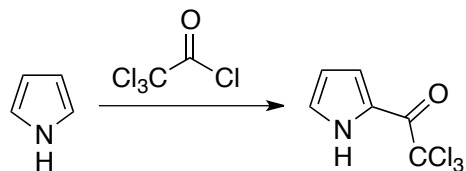


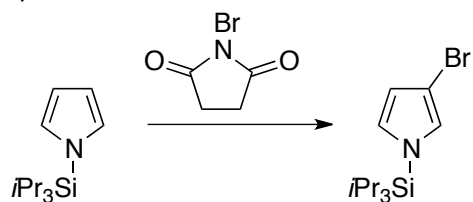
## Practice Problems

Provide mechanisms, and where appropriate products, for the following reactions:

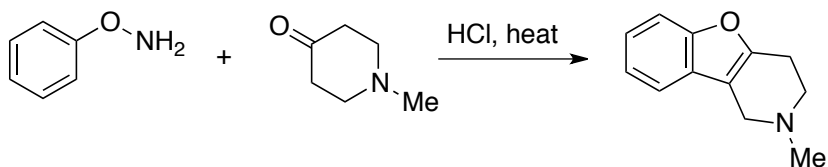
1)



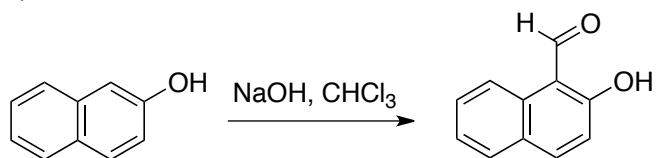
2)



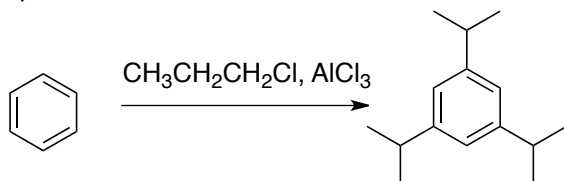
3)



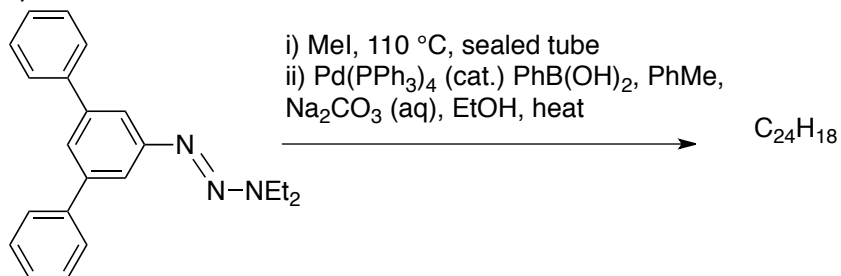
4)



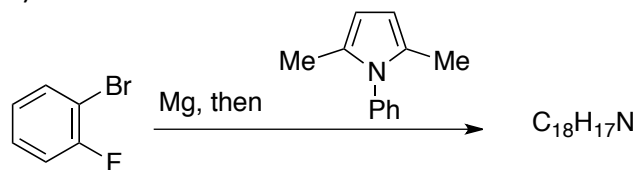
5)



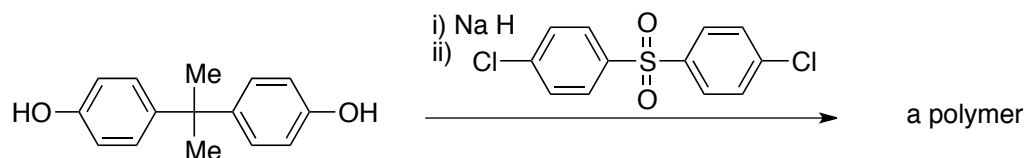
6)



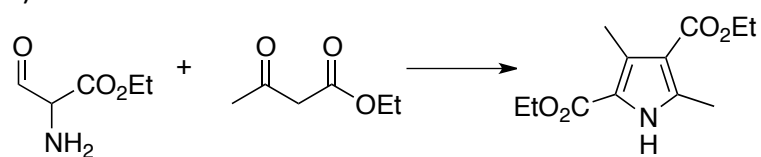
7)



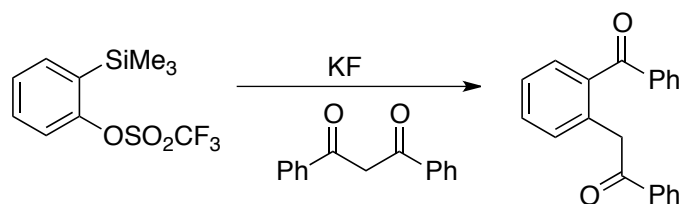
8)



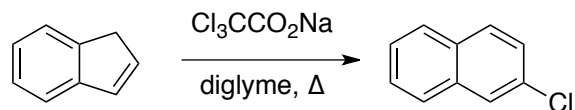
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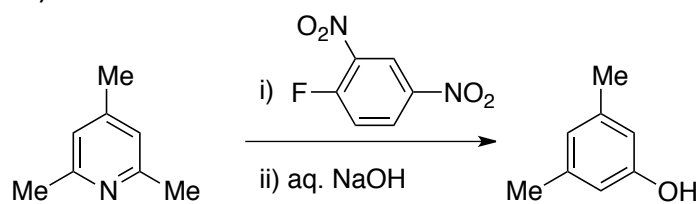
10)



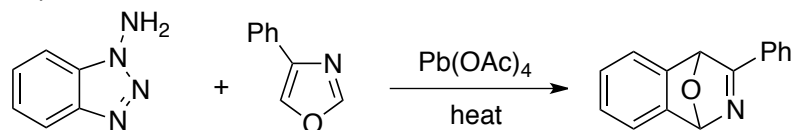
11)



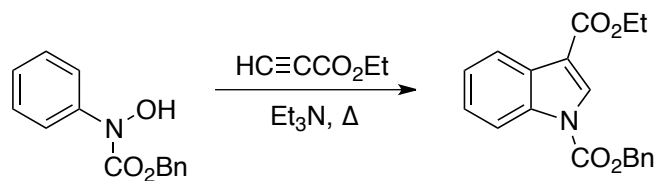
12)



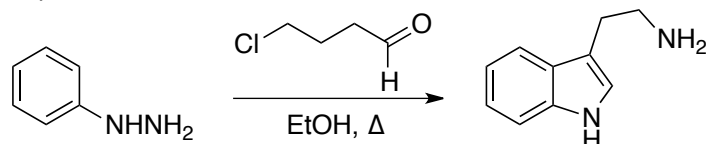
13)



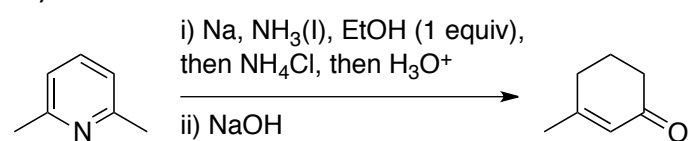
14)



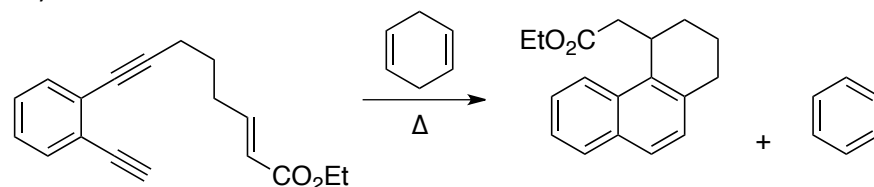
15)



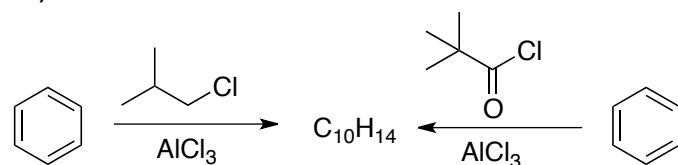
16)



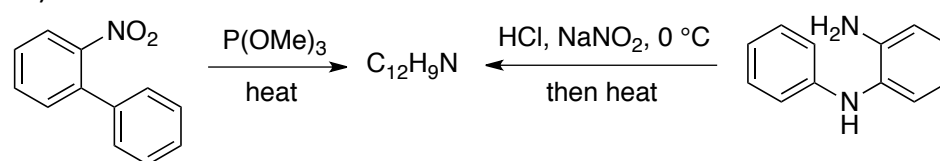
17)



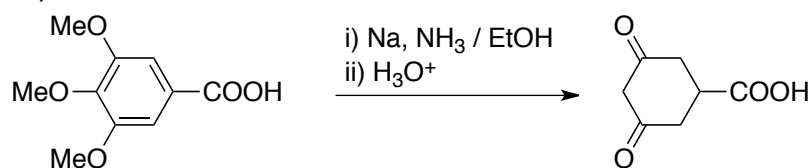
18)



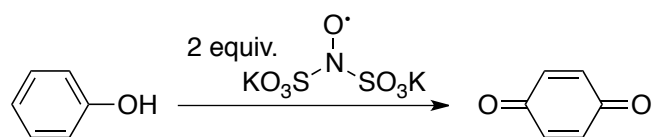
19)



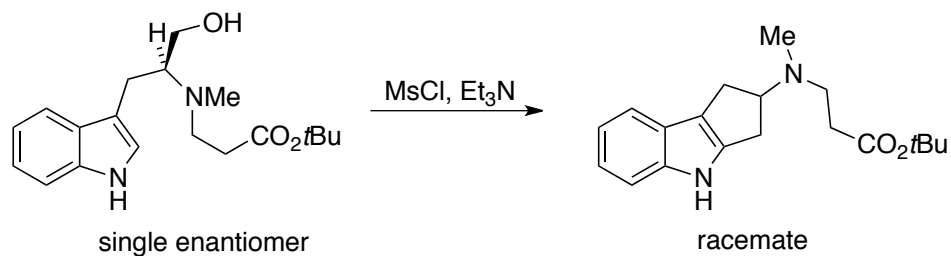
20)



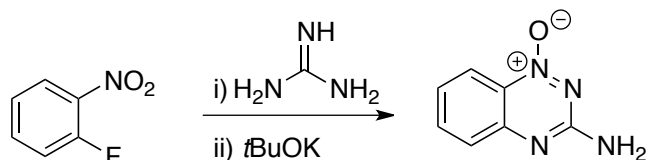
21)



22)

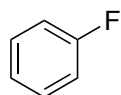


23)

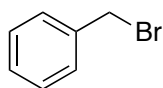


24)

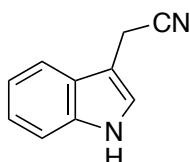
For the following compounds, suggest a synthesis from the unsubstituted aromatic parent stated in parentheses; more than one step may be required in each case.



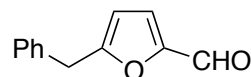
(benzene)



(benzene)



(indole)



(furan)

25) Suggest syntheses of the following from either benzene or toluene.

