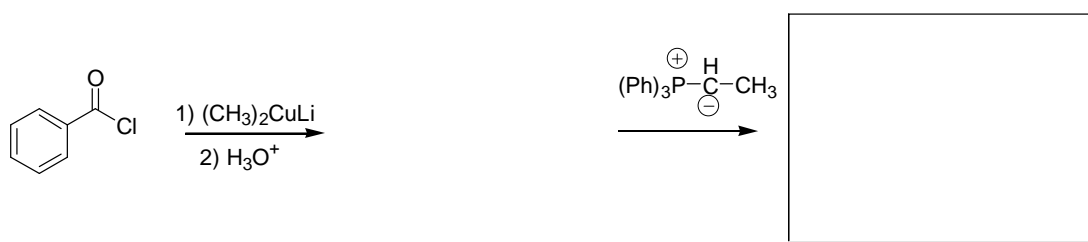
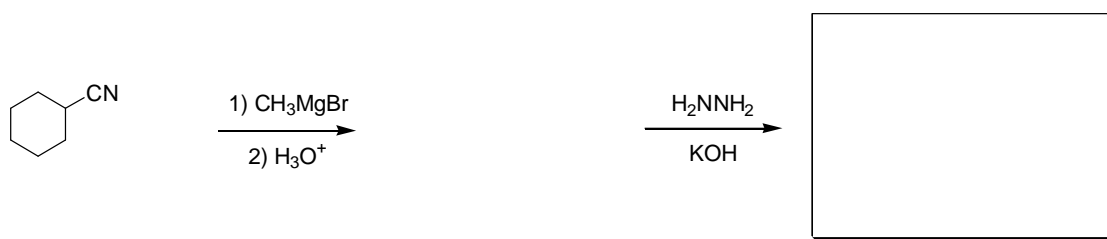
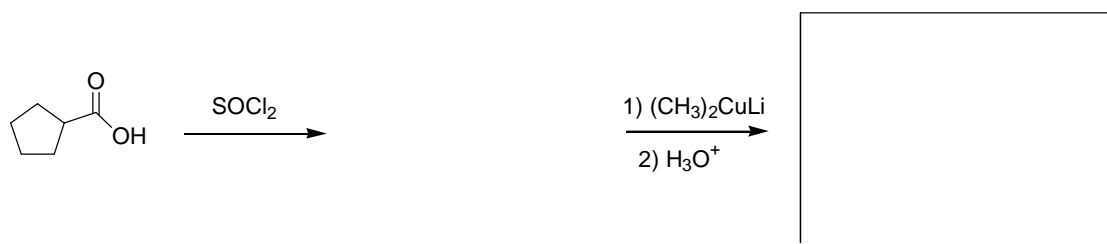
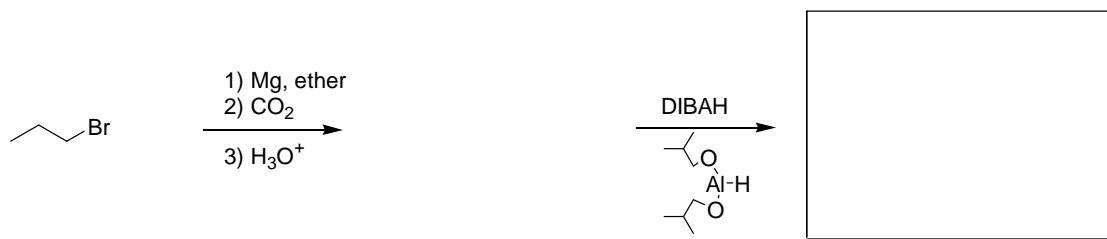
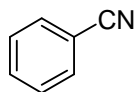
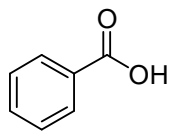
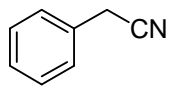
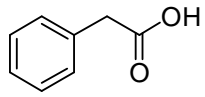


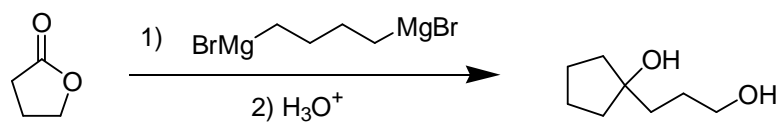
Fill in intermediates and products.



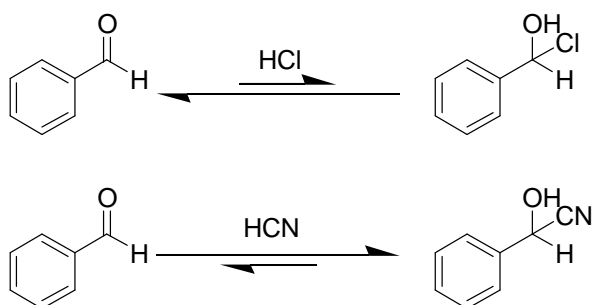
Write down all the ways you can think of to get to these compounds from other compounds:



Draw a detailed mechanism for the following reaction:



Consider the addition of two protic acids, HCl and HCN to benzaldehyde. Propose a reason for the fact that formation of the addition product is only favorable for HCN and not for HCl.



Propose synthetic schemes to conduct the following transformations:

