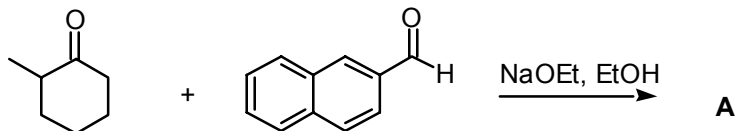
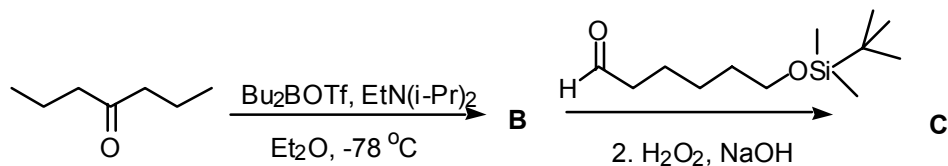


## Problem Set 8

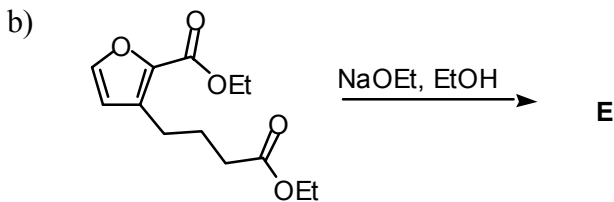
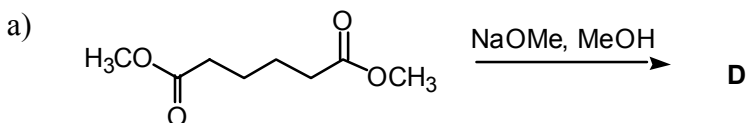
1. Only one major product is formed in the following transformation. Explain.



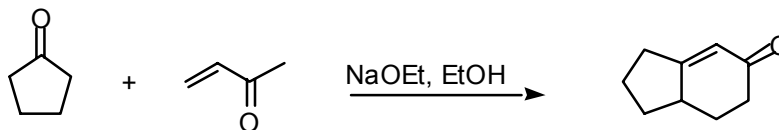
2. Complete the following scheme. Specify stereochemistry.



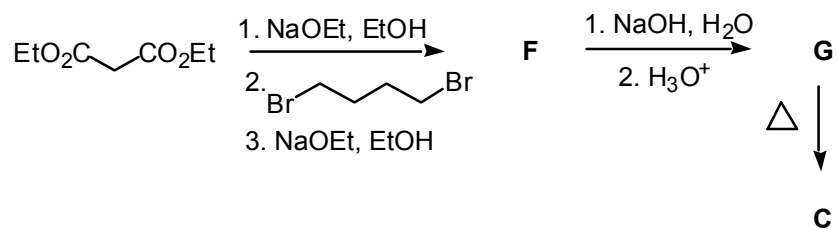
3. Only one product is formed in the following reactions. Explain.



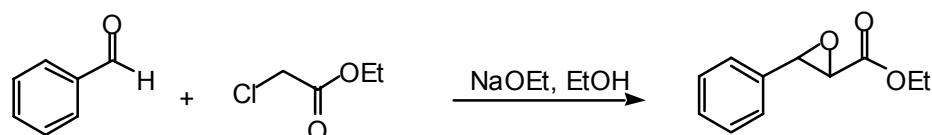
4. Explain the following result. Show any putative intermediates.



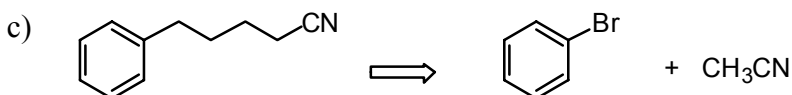
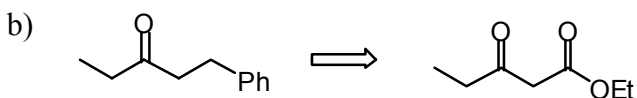
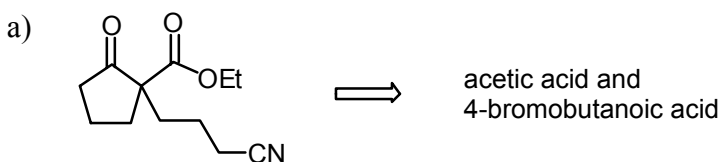
5. Complete the following scheme.



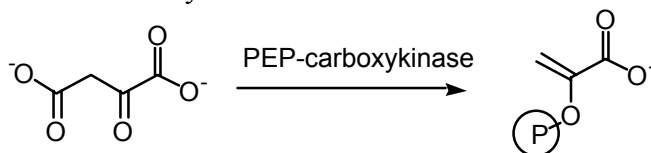
6. Propose a mechanism for the following reaction known as the Darzens reaction.



7. Propose synthesis of the following compounds:



8. Explain the mechanism of the biosynthesis of PEP (Phosphoenol pyruvate) catalysed by an enzyme named PEP carboxykinase.



(P) : phosphate

