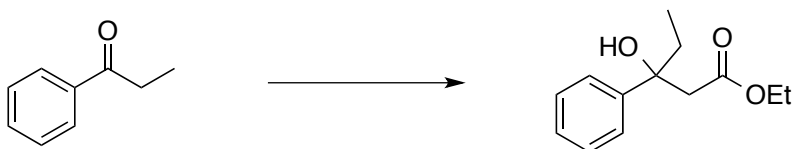
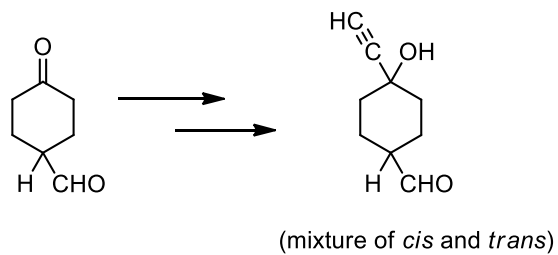


Discussion Section
Week of 04/14/14

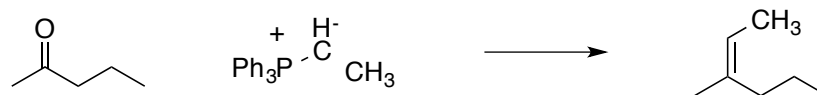
1. Fill in the reagents for the following reactions:



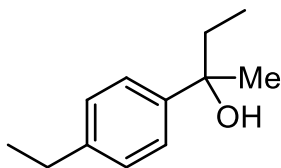
2. Propose a synthesis for the following transformation:



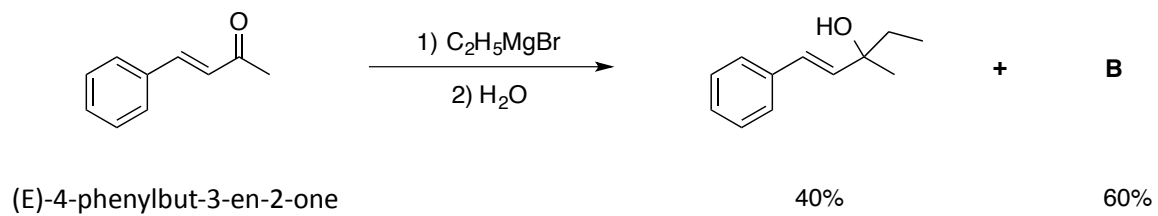
3. Please draw the mechanism for the following reaction:



4. Starting from benzene propose a synthesis for the following molecule:



5. When reacting with Ethyl Grignard reagent, (E)-4-phenylbut-3-en-2-one gives you mixture of two main products **A** and **B** with a ratio of 3:2. **A** and **B** are regioisomers.



a) Based on the resonance structure of the starting material and the mechanism of the formation of **A**, what do you think is the structure of **B**?

b) If phenyl Grignard reagent is used instead, what do you think will be the major product will be?