

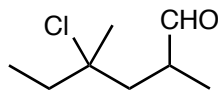
Problem Set Chapter 20

Organic Chemistry for
Life Sciences: CHM 224

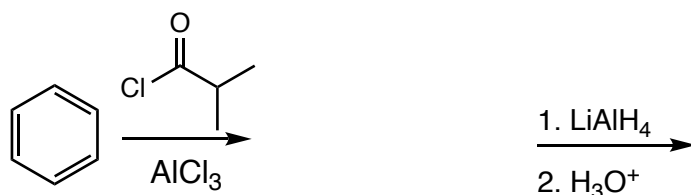
Name _____

PRACTICE Problem Set

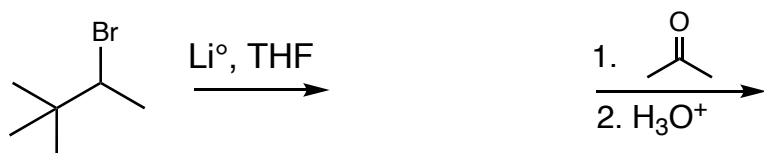
1. Provide the IUPAC name for the following compound:



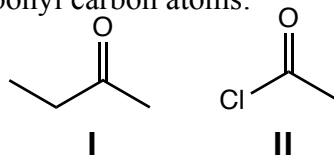
2. Provide the missing compound structures for the following sequence:



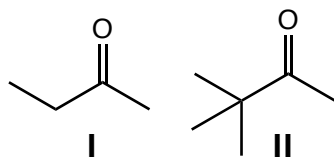
3. Provide the missing compound structures for the following sequence:



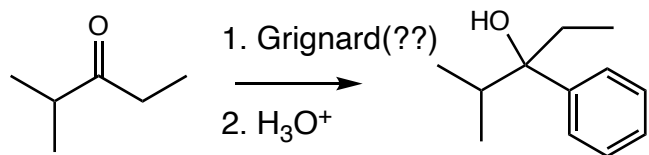
4. Based on what we learned about the relative reactivity of aldehydes and ketones, which compound below (**I** or **II**) would you expect to be more reactive with nucleophiles? Briefly explain based on partial positive charges on the carbonyl carbon atoms:



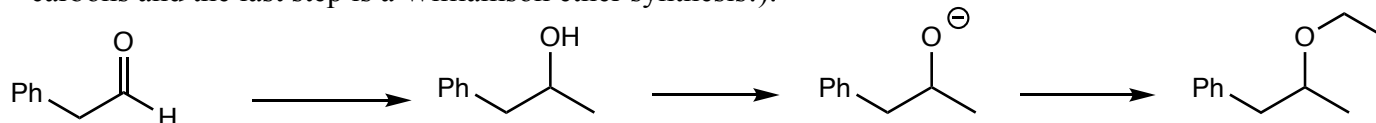
5. Based on what we learned about the relative reactivity of aldehydes and ketones, which compound below (**I** or **II**) would you expect to be more reactive with nucleophiles? Briefly explain:



6. What Grignard reagent is necessary to complete the following reaction?



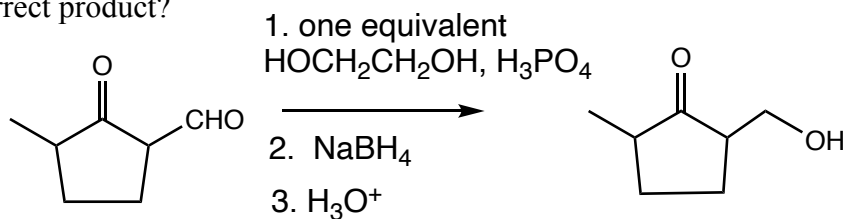
7. Provide the reagents necessary to complete the following sequence (HINT: look carefully at numbers of carbons and the last step is a Williamson ether synthesis!):



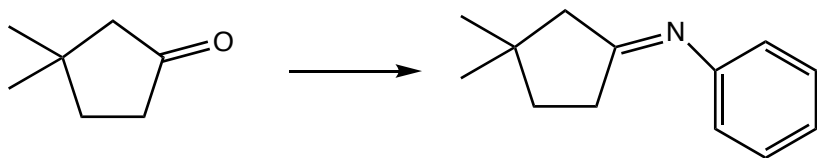
8. Jimmy predicts the product of the following reaction sequence to be as indicated. Is Jimmy correct? If not, what IS the correct product?



Jimmy



9. What compound is required to complete the following reaction?



10. How prepared are you for Test 2?

- A. no so good
- B. OK
- C. feeling good
- D. no problem
- E. what test?