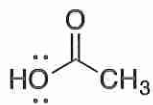


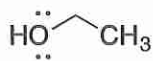
Answer Key

Problem Solving Session Week of 2/27/17

Rank the following in terms of relative acidity, with a 1 under the most acidic, and a 4 under the least acidic molecule.



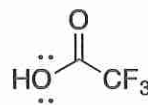
3



4

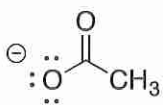


1

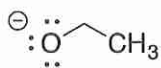


2

Rank the following with respect to anion stability. Write a 1 under the most stable anion, and a 4 under the least stable anion.



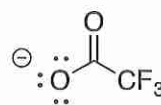
3



4

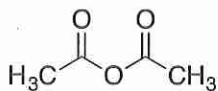


1

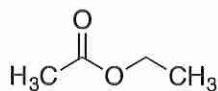


2

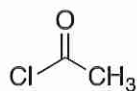
Rank the following carboxylic acid derivatives with respect to reactivity with a nucleophile. Write a 1 under most reactive, and a 4 under the least reactive.



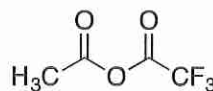
3



4

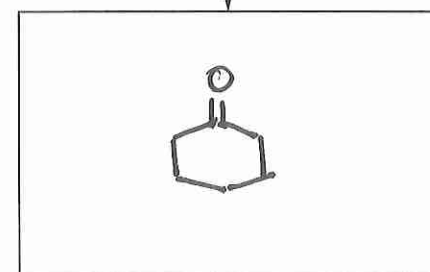
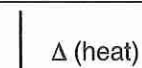
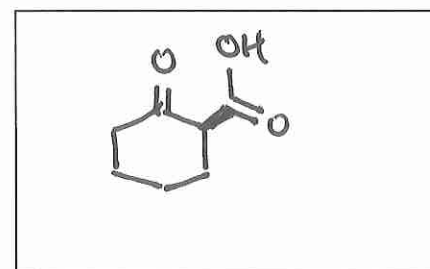
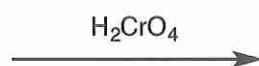
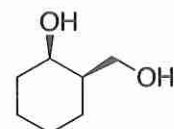
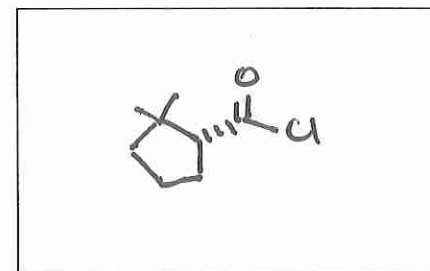
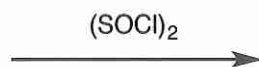
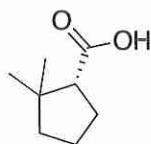
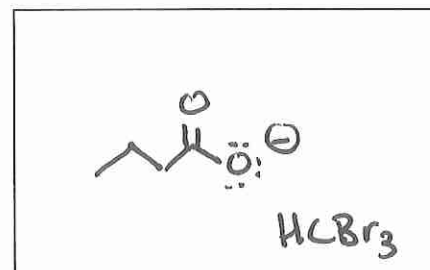
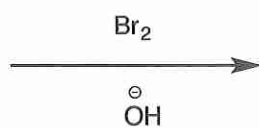
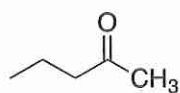
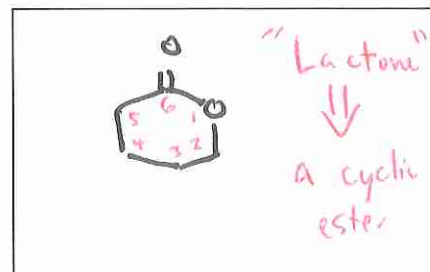
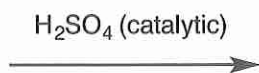
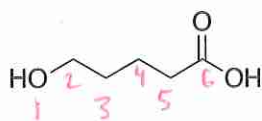


1

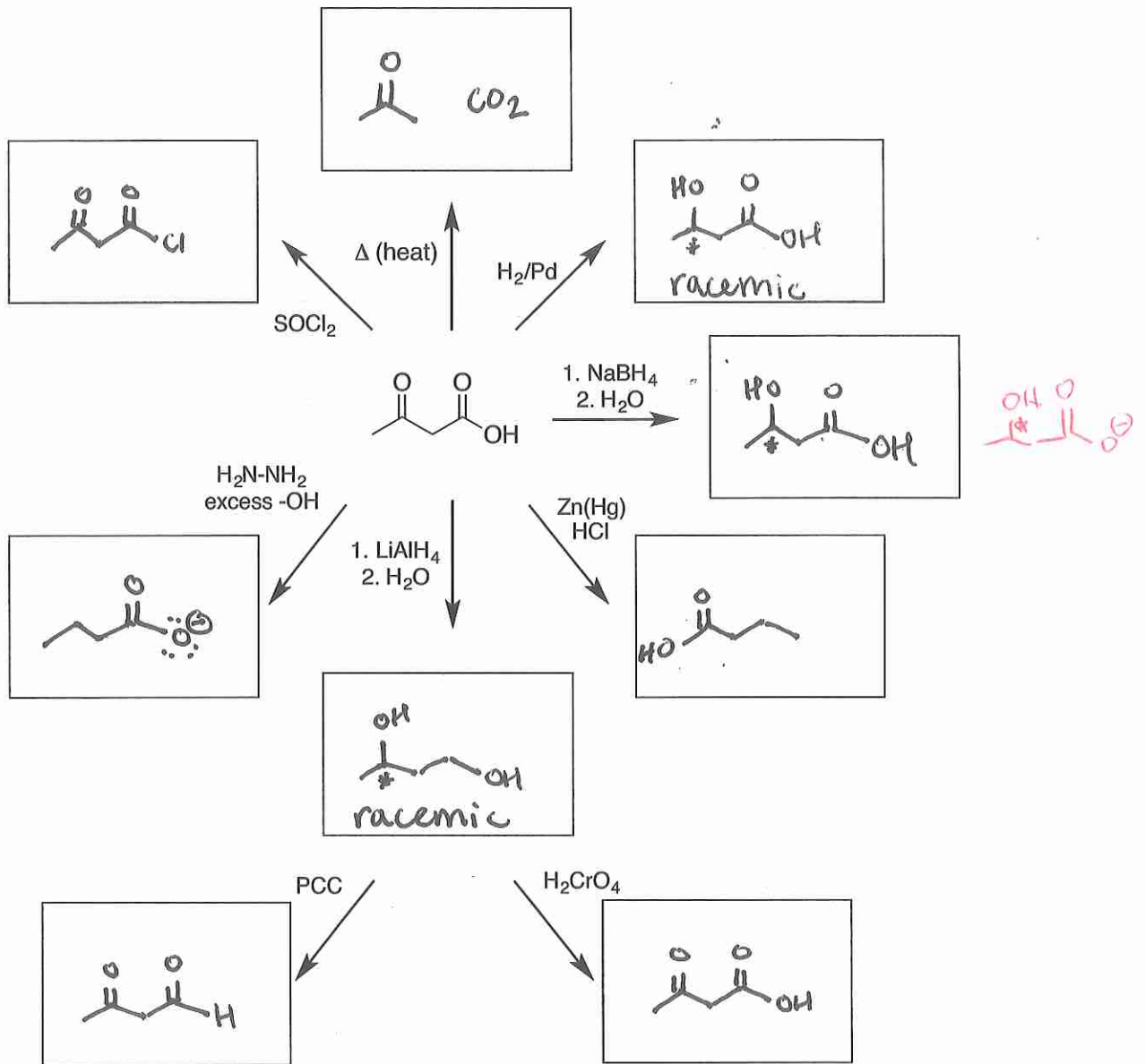


2

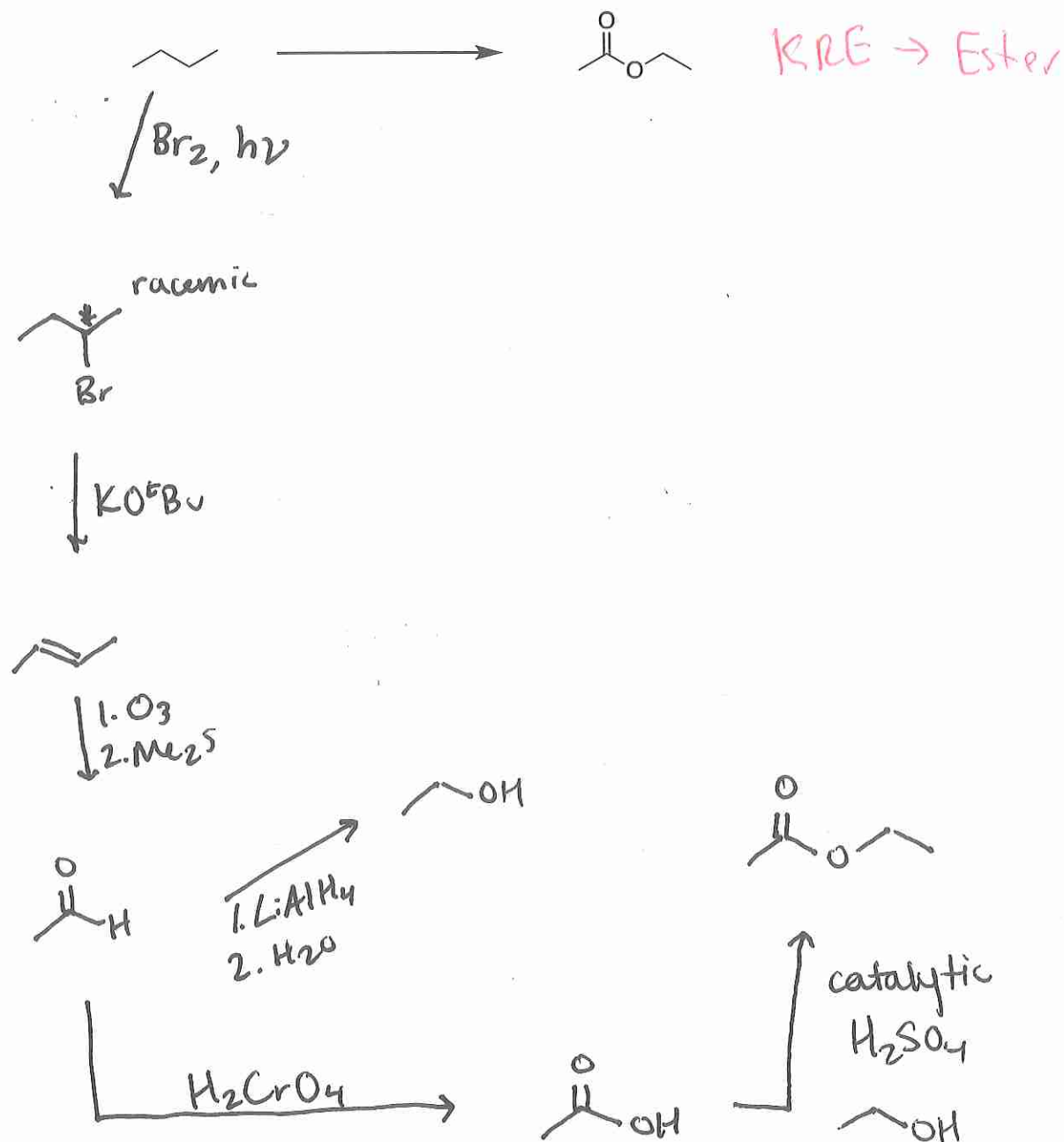
Fill in the boxes with the structures that complete the reactions. Use wedges and dashes to indicate stereochemistry when appropriate.



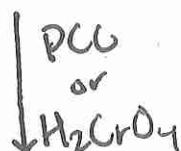
Predict the products for the following transformations.



The following is a synthesis question. Show all the reagents you need. Show each molecule synthesized along the way and be sure to pay attention to the regiochemistry and stereochemistry preferences for each reaction. You must draw all stereoisomers formed, and use wedges and dashes to indicate chirality at each chiral center. Write racemic when appropriate.

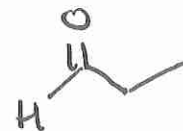
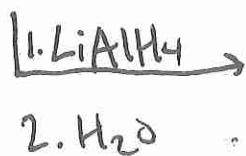
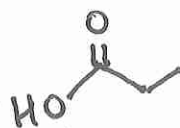
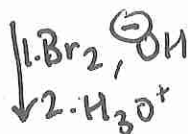


The following is a synthesis question. Show all the reagents you need. Show each molecule synthesized along the way and be sure to pay attention to the regiochemistry and stereochemistry preferences for each reaction. You must draw all stereoisomers formed, and use wedges and dashes to indicate chirality at each chiral center. Write racemic when appropriate.



← Aldehyde

↓
Consider oxidizing
from 1° alcohol



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