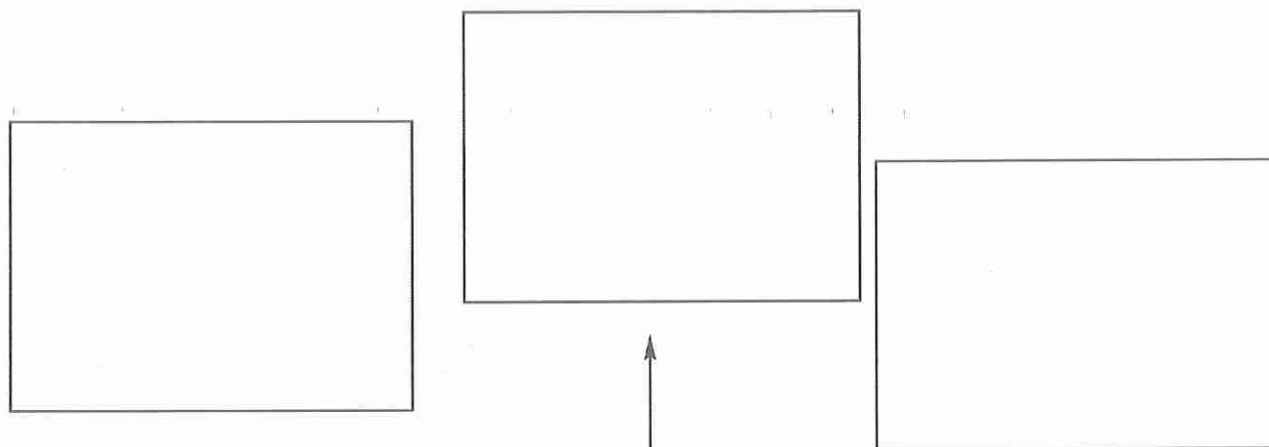


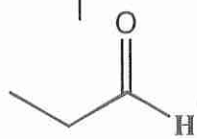
13. (3 or 5 pts each) For the following reactions, draw the predominant product or products. **When a new chiral center is created, mark it with an asterisk (*) and if a racemic mixture is produced, you must write "racemic" under your structure. If an E,Z mixture is produced as the result of a dehydration step, write "E,Z mixture", but you only have to draw one isomer, not both.** These directions are different than you may have seen before, and are intended to make it easier for you. You should read them again so you know what we want.



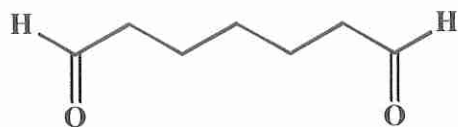
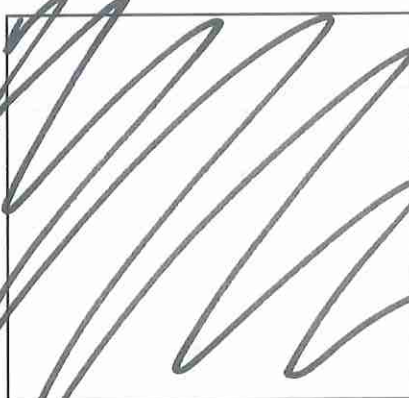
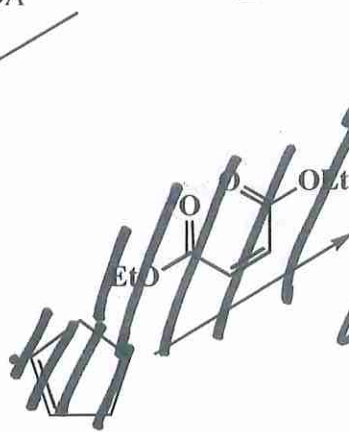
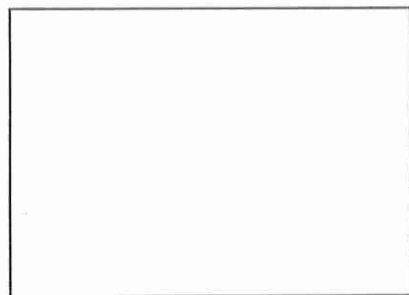
1) cat. NaOH
2) H_3O^+ with heating

cat. NaOH
(No acid or heat)

1.0 eq. LDA

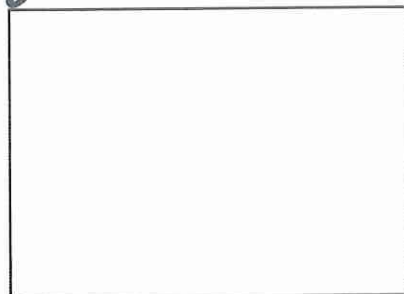


1) 1.0 eq. LDA
2) 1.0 eq. $\text{H}_2\text{C}=\text{O}$
3) H_3O^+ with heating

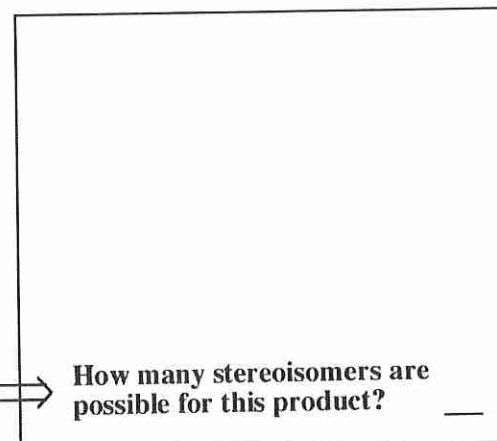
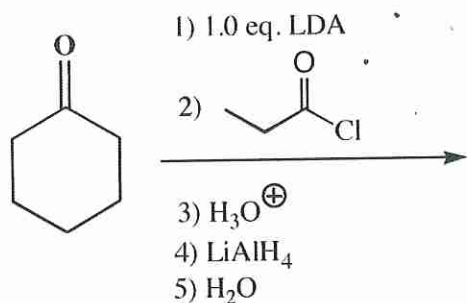
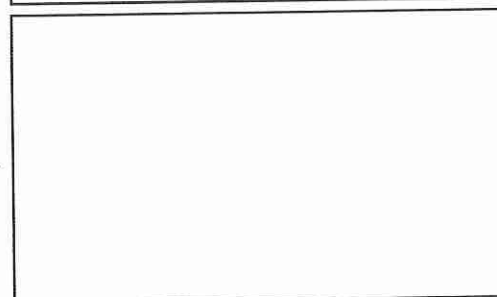
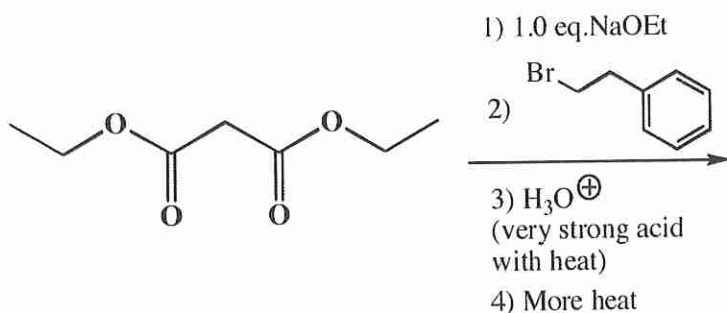
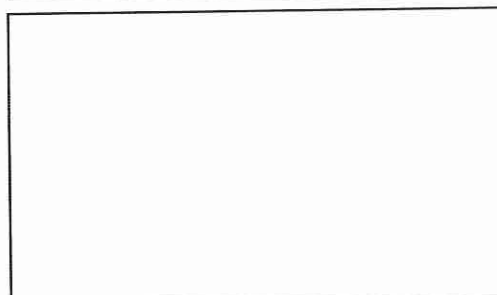
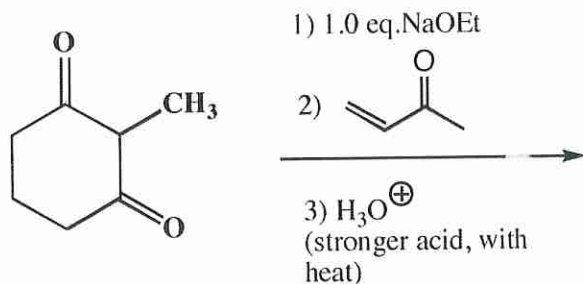
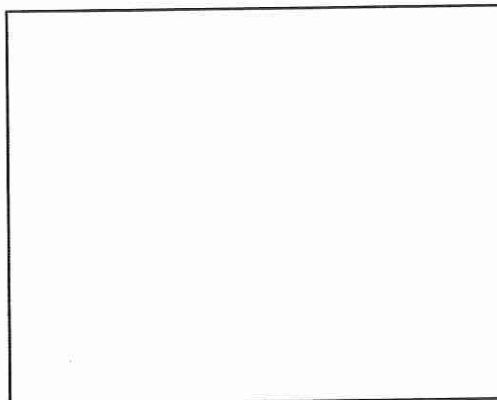
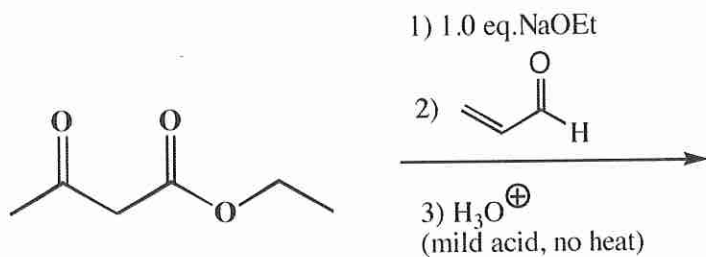


1) cat. NaOH

2) H_3O^+ with heating



13. (3 or 5 pts each) For the following reactions, draw the predominant product or products. **When a new chiral center is created, mark it with an asterisk (*) and if a racemic mixture is produced, you must write "racemic" under your structure. If an E,Z mixture is produced as the result of a dehydration step, write "E,Z mixture", but you only have to draw one isomer, not both.** These directions are different than you may have seen before, and are intended to make it easier for you. You should read them again so you know what we want.



NOTICE THIS \Rightarrow

How many stereoisomers are possible for this product? _____

Synthesis Problems: 4/7/15

