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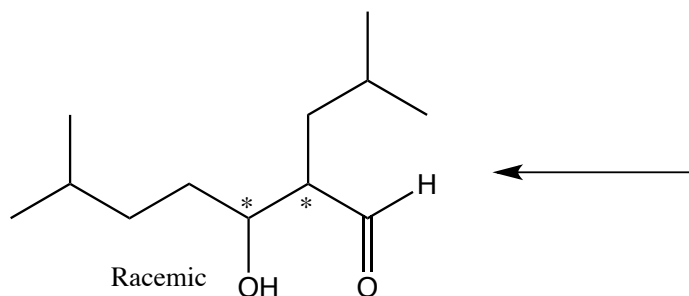
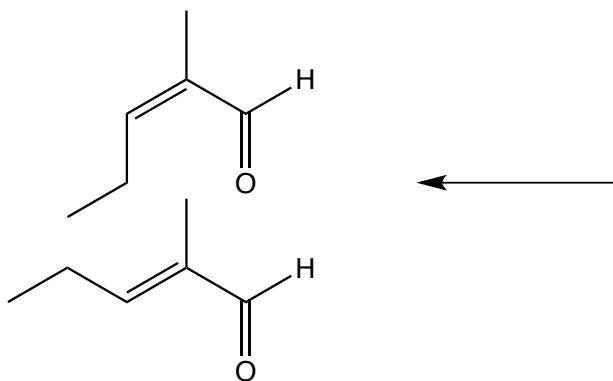
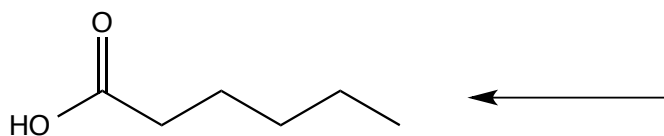
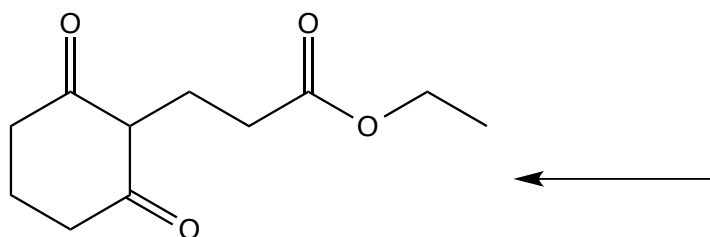
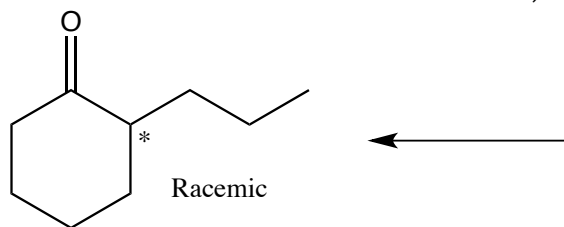
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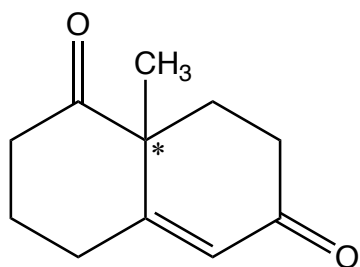
**Chemistry 320N
Dr. Brent Iverson
9th Homework
April 1, 2024**

**Please print the
first three letters
of your last name
in the three boxes**

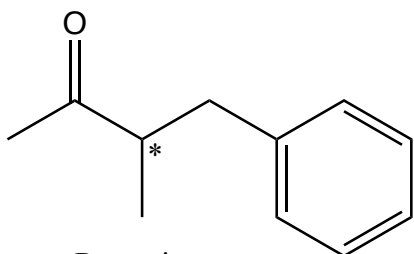
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For the following three pages, a reaction product is given. Predict the starting materials and reagents needed to make each molecule. Note that some will take several steps. This problem is designed to test your ability to recognize KRE's in enolate and other types of reactions. Note this list exactly correlates to the structures presented in class as representative enolate products (Mechanism Sheet 33 on the course website under "Handouts")

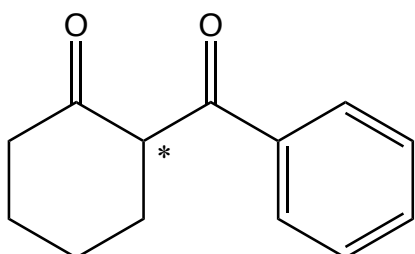




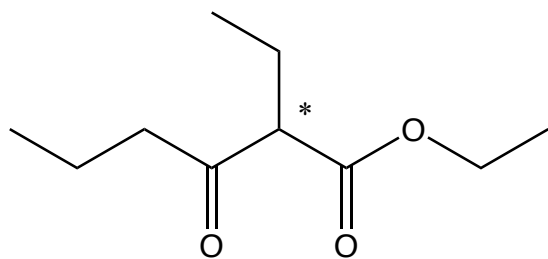
Racemic



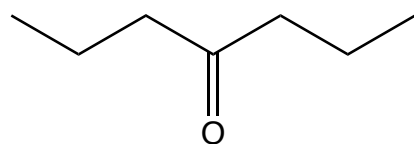
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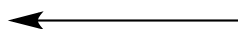
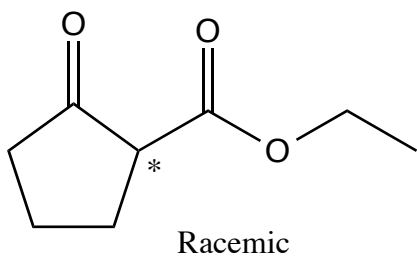
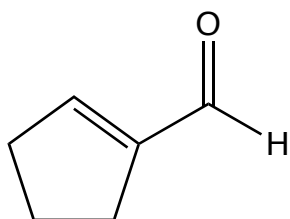
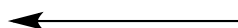
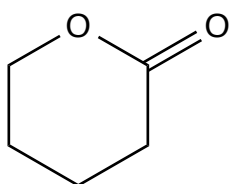
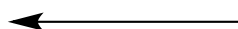
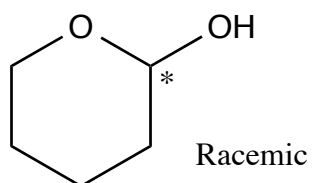
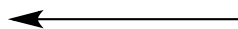
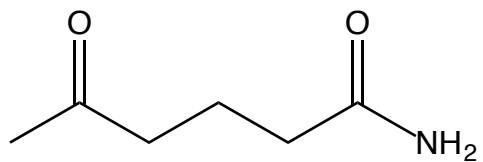


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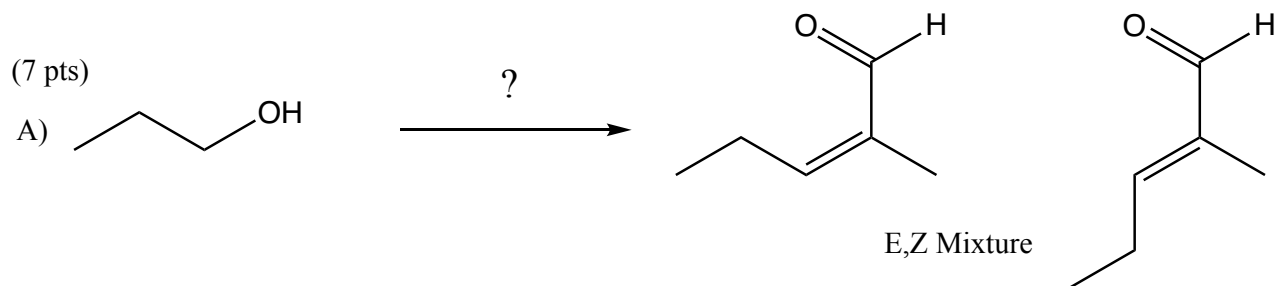


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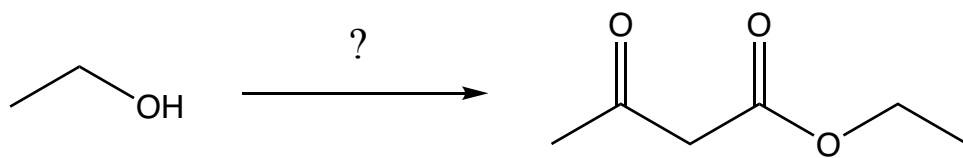


These are enolate synthesis problems. In each case, all of the carbons of the products must come from the listed starting materials. You may use any reagents we have discussed this semester or last semester. Show all molecules synthesized along the way. For each step, you will only get full credit if the product you list is the major product of that transformation. Remember to work backwards, count carbons, and make sure you know your KRE's.



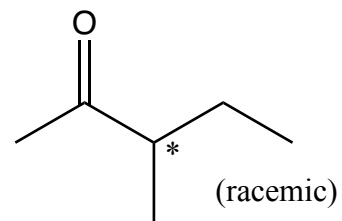
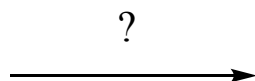
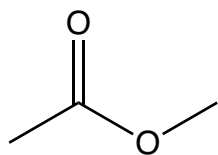
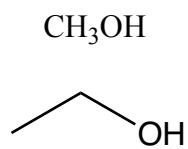
(10 pts)

B)



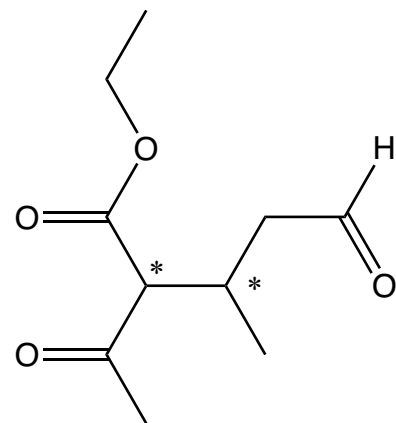
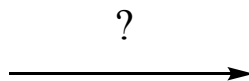
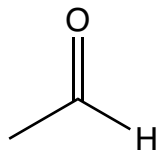
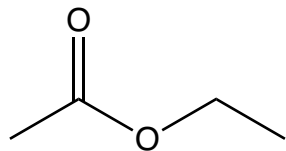
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C)



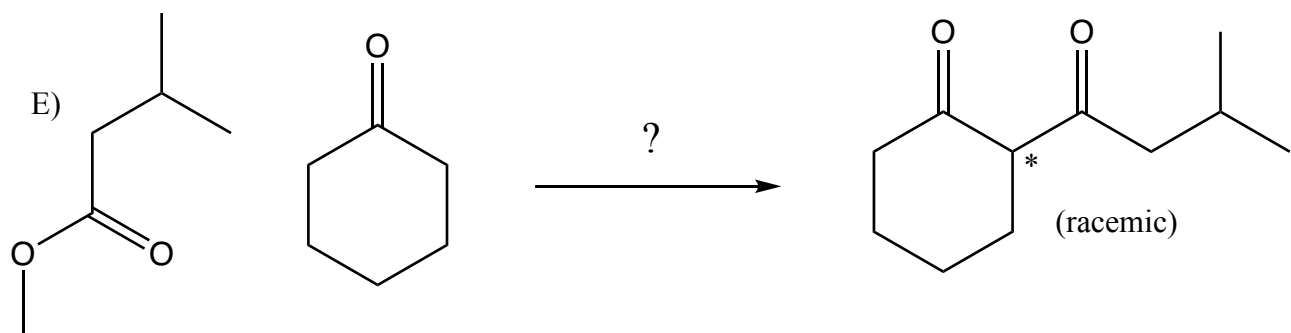
(7 pts)

D)

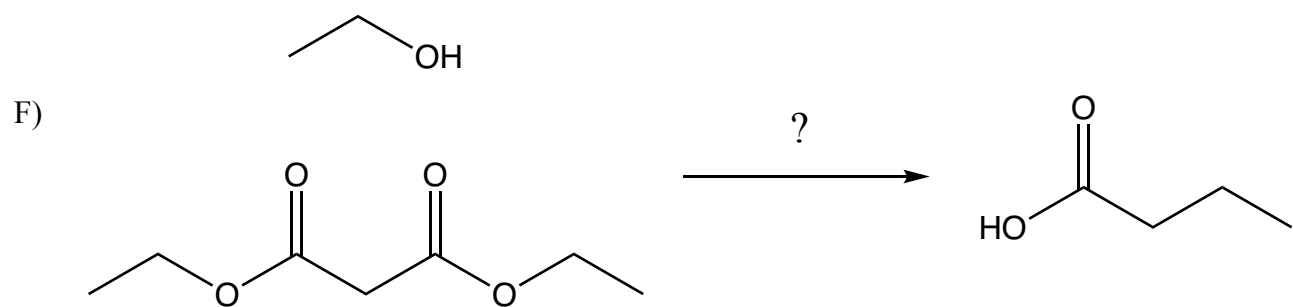


Racemic

(16 pts)



(10 pts)



The KRE might be very difficult to spot here. Hint: A substantial portion of this one comes from ones you have done earlier in this homework set.

(22 pts)

G)

