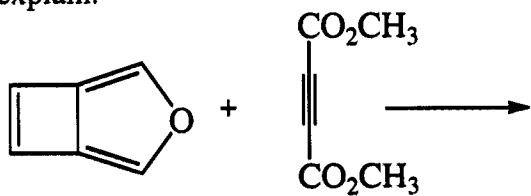


+1 circle (4)

+1 correct product (9)

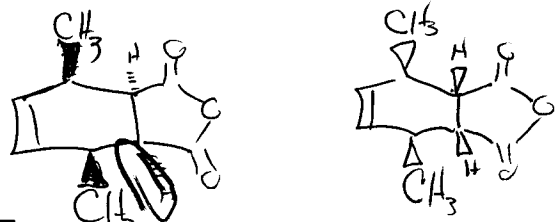
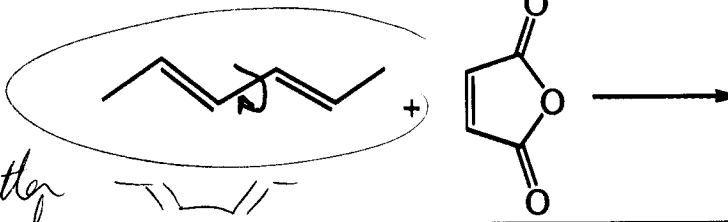
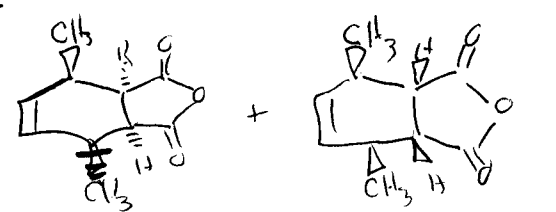
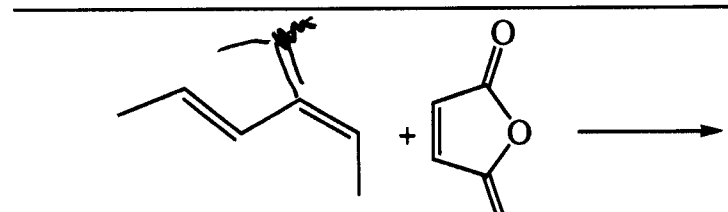
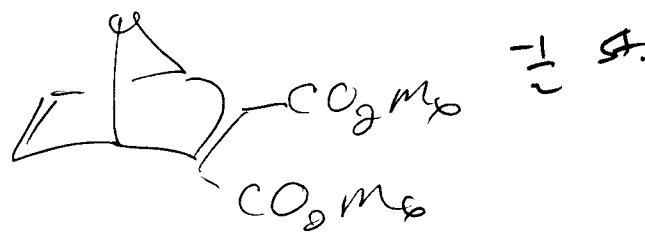
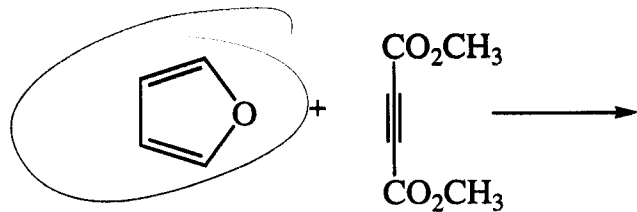
+2 no rxn explain

2. (15 pts) Consider the following pairs of reactions. Write down the products and circle the reaction that is faster in each pair. If you think that no reaction will occur, write **NR** and provide a couple of words to explain.

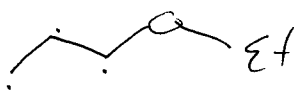
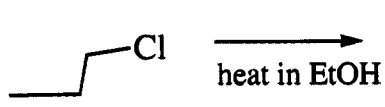
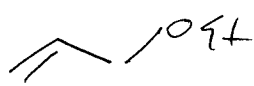
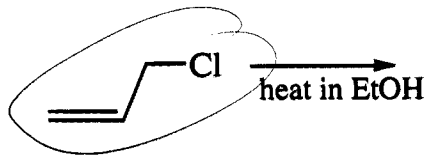


NR

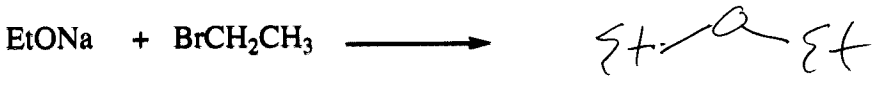
DA  
Product would be  
anti-trans



better conf.



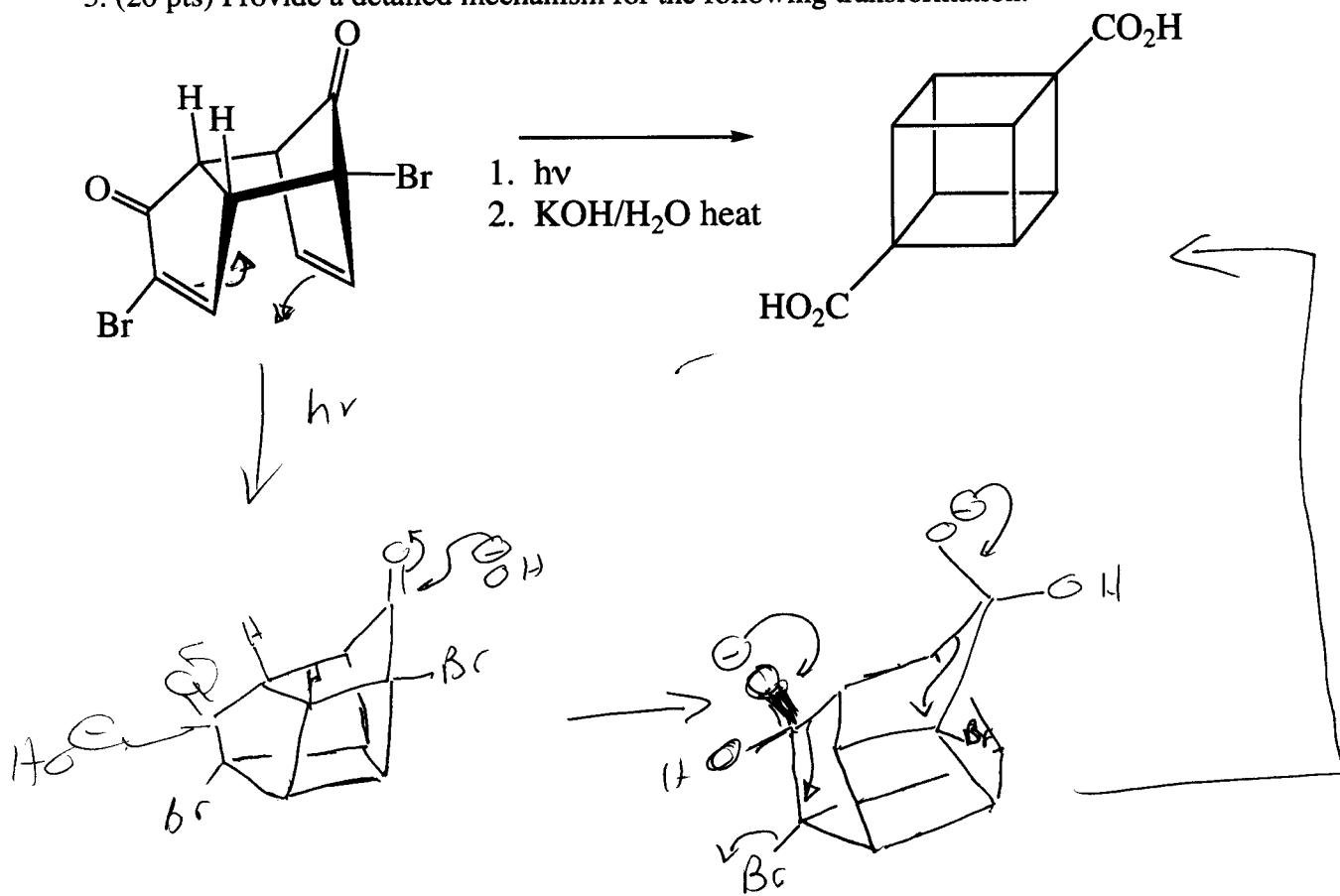
very slow or NR  
OK



Conflict

# Conflict

3. (20 pts) Provide a detailed mechanism for the following transformation.

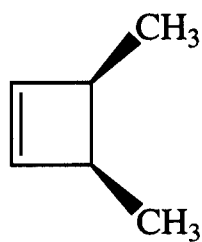


10 pts for [2+2]

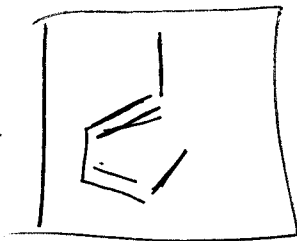
10 pts for Favorskii rearrangement

# Conflict

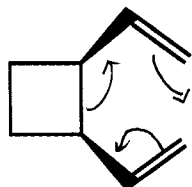
4. (40 pts) Provide the products for the following reactions. Show all major products and stereoisomers.



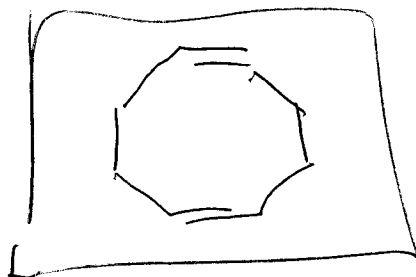
Heat



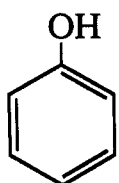
FULL (4)  
STEREO/ISOMER (-2)



Heat



FULL (4)  
STEREOCHEM -2  
PER //



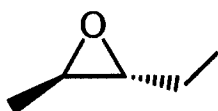
$(\text{CH}_3)_3\text{COK}$

2.  $\text{CH}_3\text{I}$

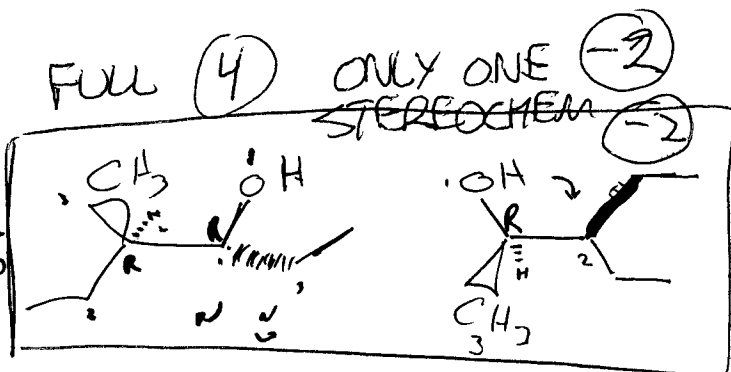


(4)/(0)

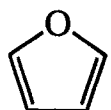
$\text{EtMgBr}$  +



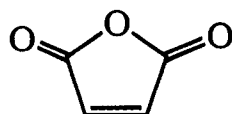
$\text{H}_2\text{O}$  workup



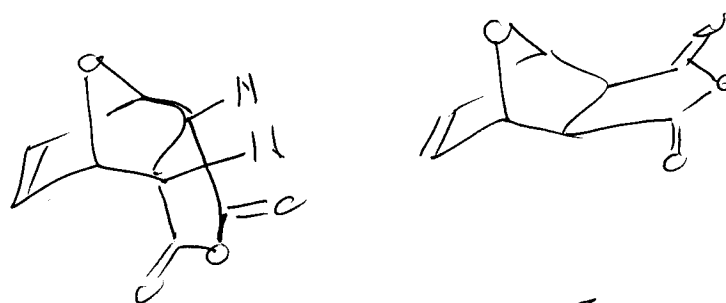
FULL (4) ONLY ONE (-2)  
STEREOCHEM (-2)



+



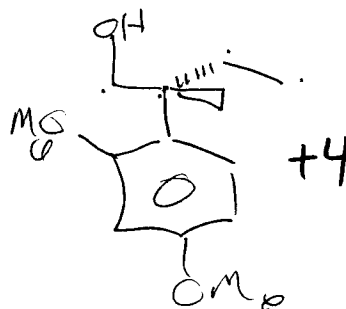
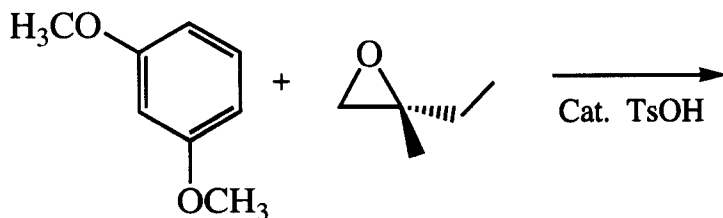
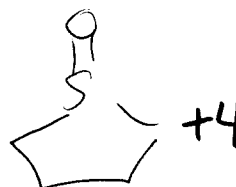
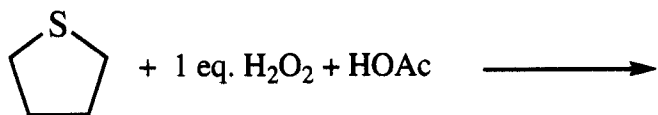
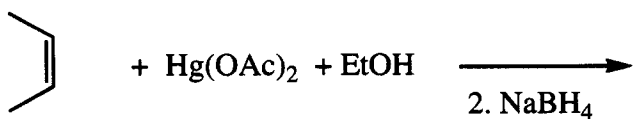
→



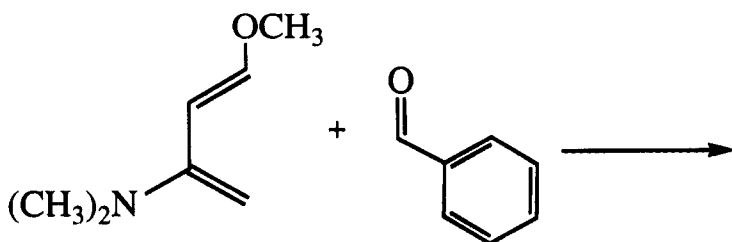
enda ONLY ONE OF  
2 PRODUCTS  
: (2)

# Conflict

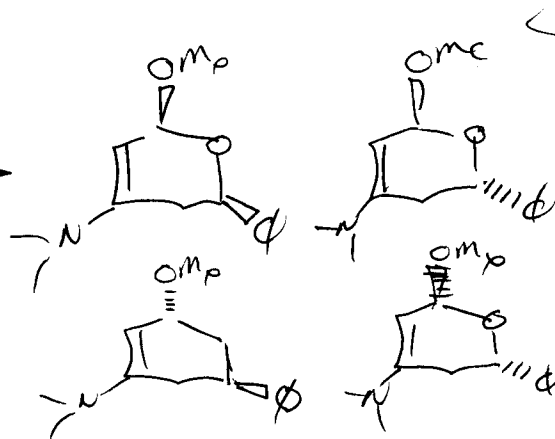
Problem 3 continued.



(+2 if on wrong carbon)



+4



eliminate of HOMO  
OK

