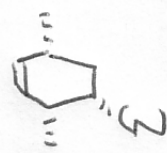
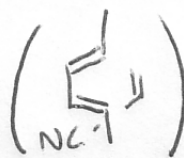
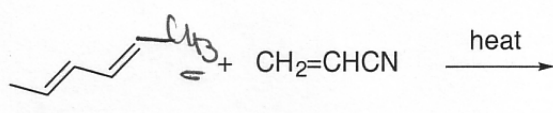
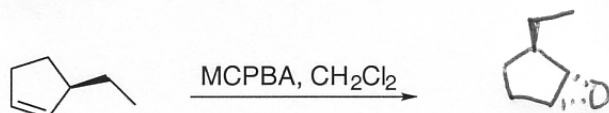
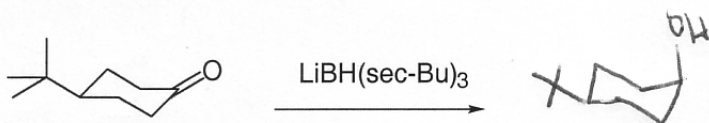
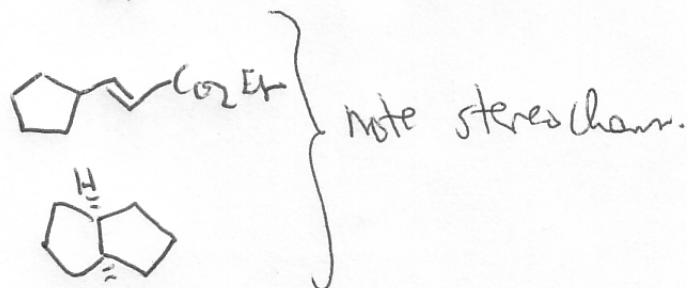
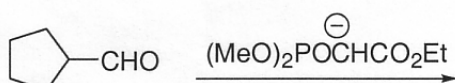
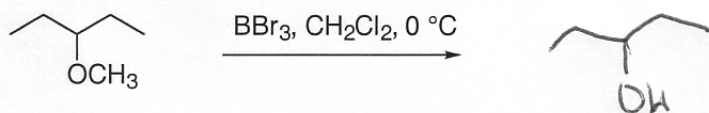
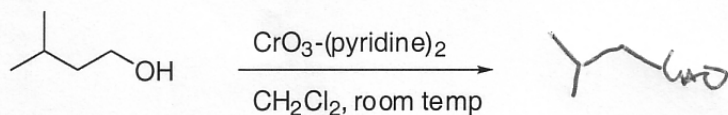
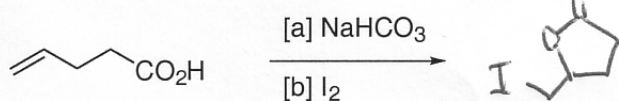


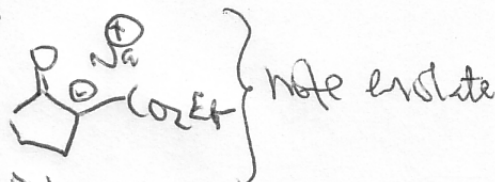
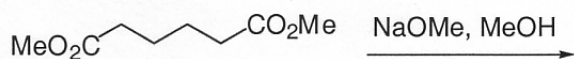
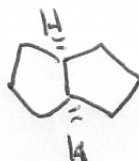
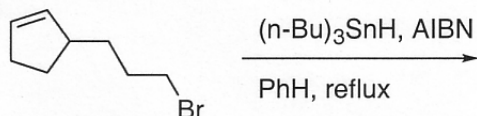
Solns to
Practice problems



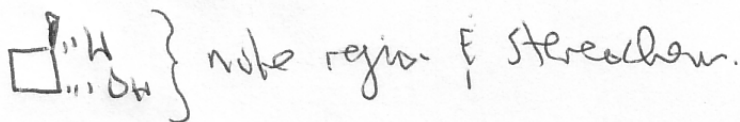
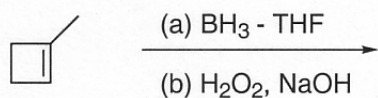
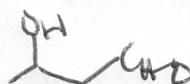
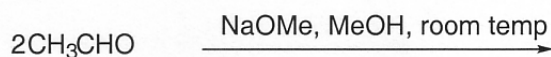
note stereochem.



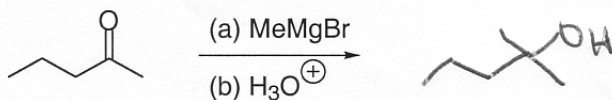
note stereochem.

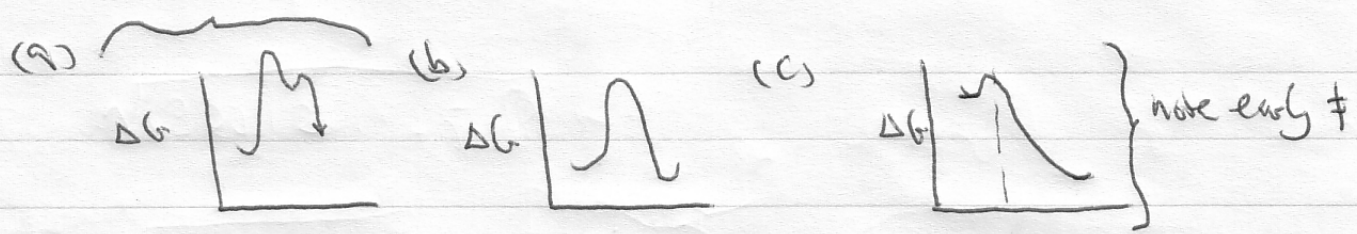


note enolate



note regio. & stereochem.

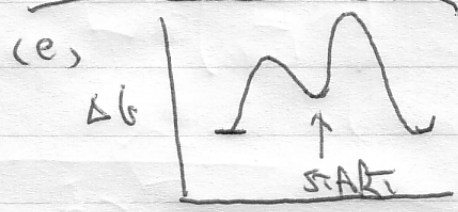
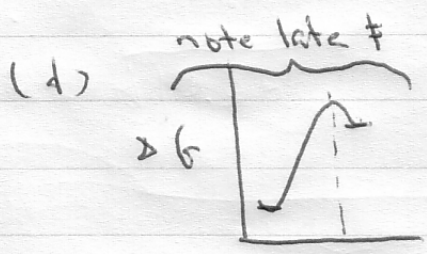




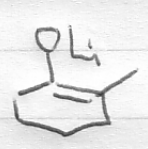
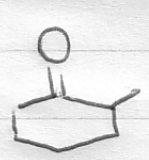
SN1

SN2

can you think of a case like this?



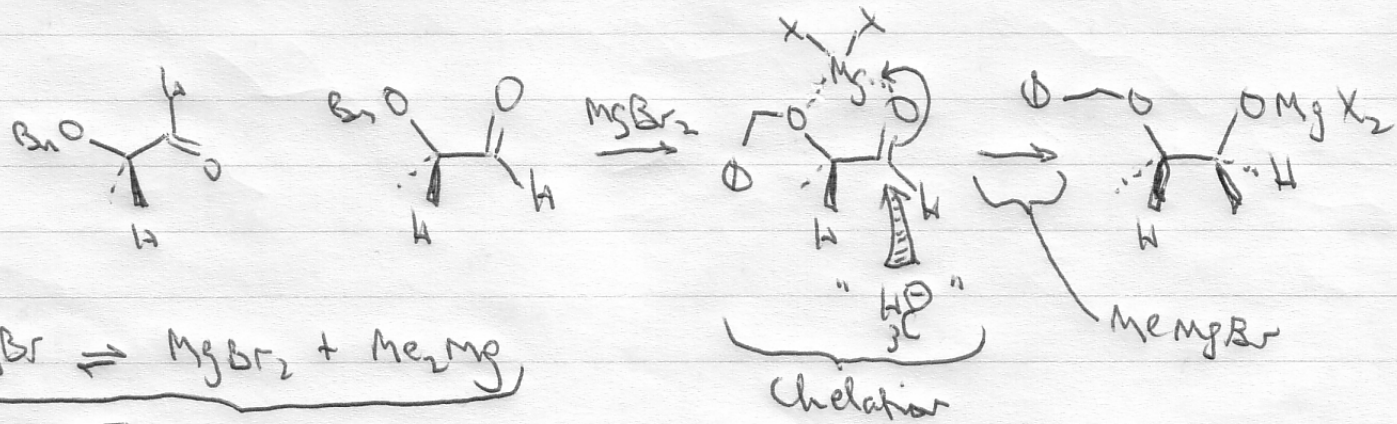
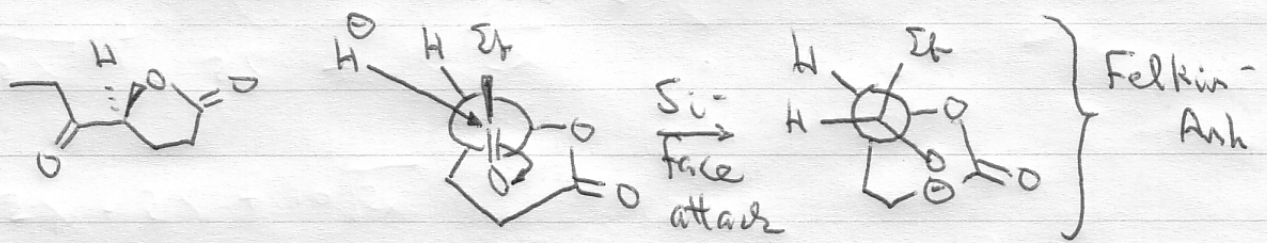
(f) See (c) & (d)



10 / 90

$$\begin{array}{r} 27.3 \\ - 78 \\ \hline 195\text{K} \end{array}$$

$$\Delta G = -RT \ln K_{eq} = -1.987(195) \ln 9$$



$$2 \text{MeMgBr} \rightleftharpoons \text{MgBr}_2 + \text{Me}_2\text{Mg}$$

Schlenk equilibrium

-3-



Secular det.

$$\begin{vmatrix} x & 0 & 0 & 1 \\ 0 & x & 0 & 1 \\ 0 & 0 & x & 1 \\ 1 & 1 & 1 & x \end{vmatrix} = 0$$

Secular eqns.

$$C_1 x + C_4 = 0$$

$$C_2 x + C_4 = 0$$

$$C_3 x + C_4 = 0$$

$$C_4 x + C_1 + C_2 + C_3 = 0$$

$$k = A e^{-E_a/RT} \Rightarrow E_a = -RT(\ln k - \ln A)$$

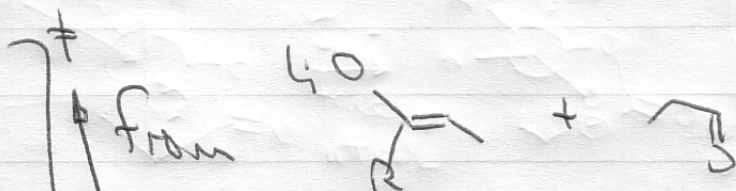
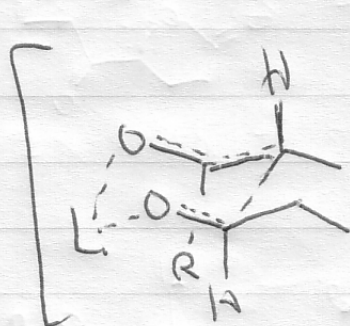
after rearranging

$$-\frac{E_a}{RT} = \ln k - \ln A \Rightarrow \ln k = \ln A - \frac{E_a}{RT}$$

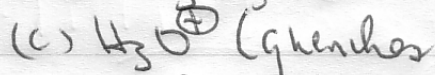
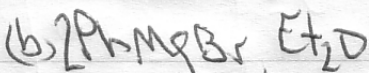
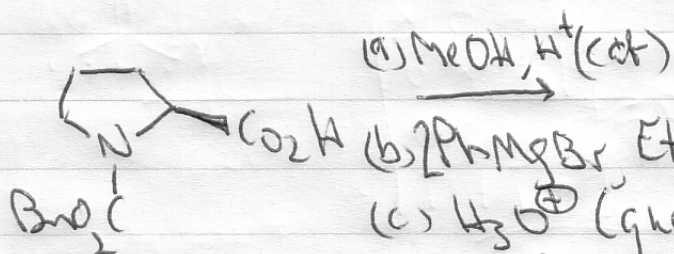
equivalently,

$$\text{or } \log k = \log A - \frac{E_a}{2.3RT}$$

$$\therefore, \log A = 9.41 \text{ \& } E_a = 1.74 \text{ kcal/mol}$$



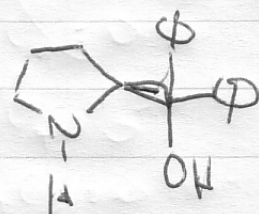
note Zimmerman-Traxler transition state



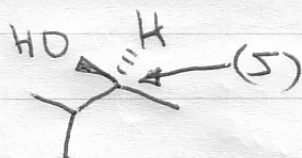
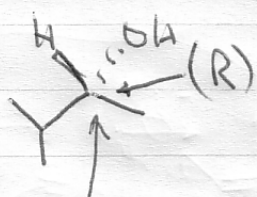
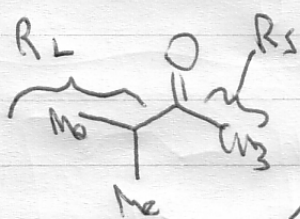
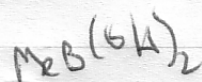
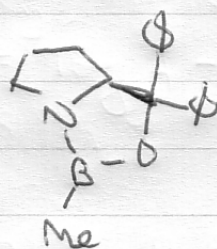
Grignard rxn & removes

CO_2Bn & protonates

on nitrogen. Would lead to the conjugate acid of the amine. $\therefore$ need to render the soln basic in order to free the amine



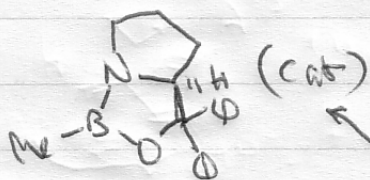
$\Rightarrow$
 review discussion in
 Ch. 45 of
 Clayden et al, & in Bruckner.



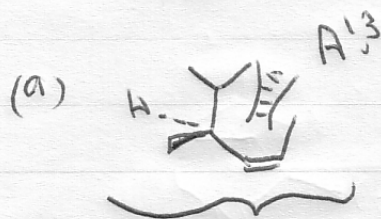
$\Rightarrow$ (Winfront $\therefore$ $2 \Rightarrow R$)



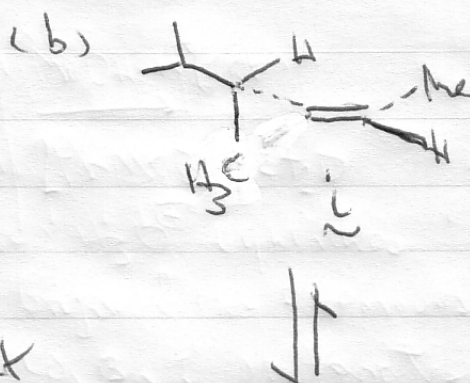
mjr pdt of
 CBS reduction



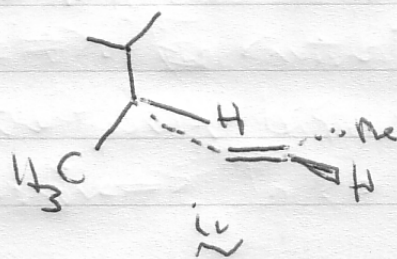
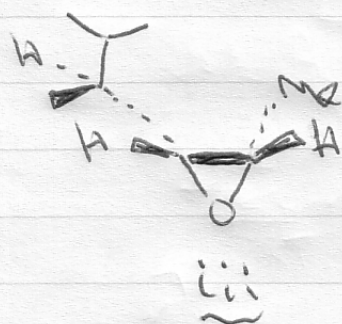
note catalytic



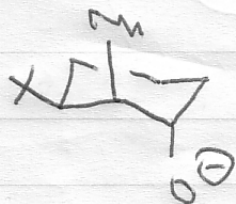
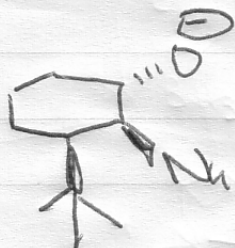
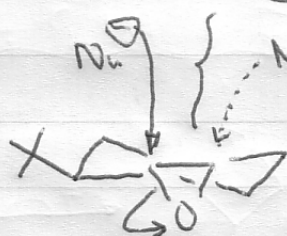
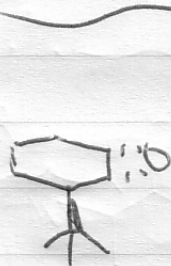
review the
concept in the
Clayden etal text



examine a model.
Notice the slight
differences be-
tween these two
conformers. If
one assumes that
i-Pr is larger than
CH₃ (of course, it
is) then preference
~~should be~~ is
predicted to be shown



to word attach from the bottomside of ii to afford iii.



...has a proach → a twist
boat via a twist-boat-like
transition state. That's
higher E than the "chair path".