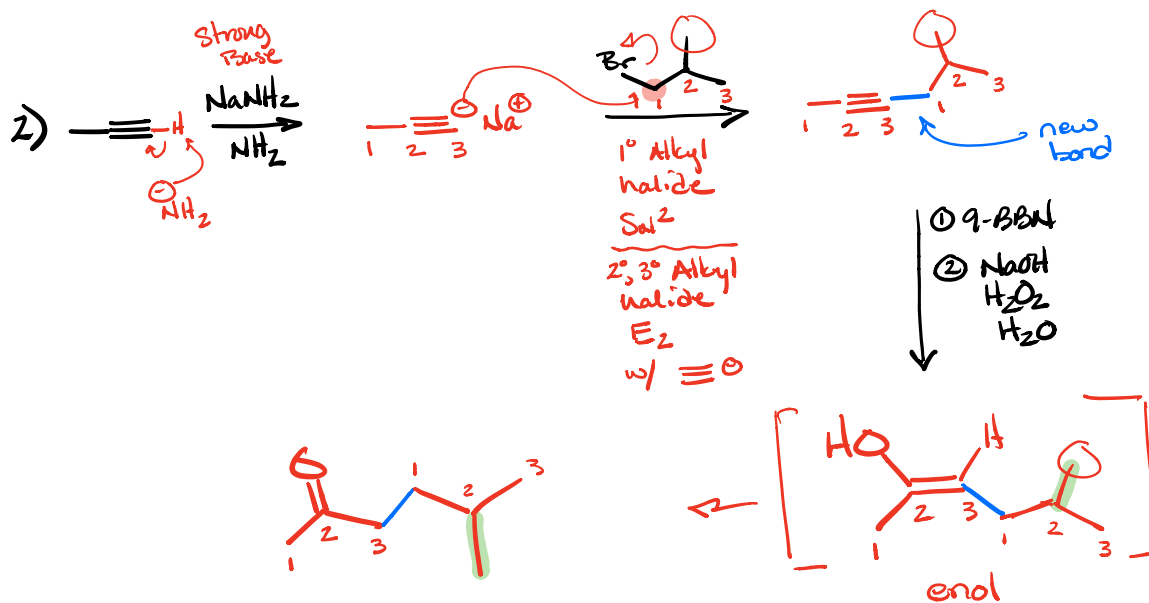
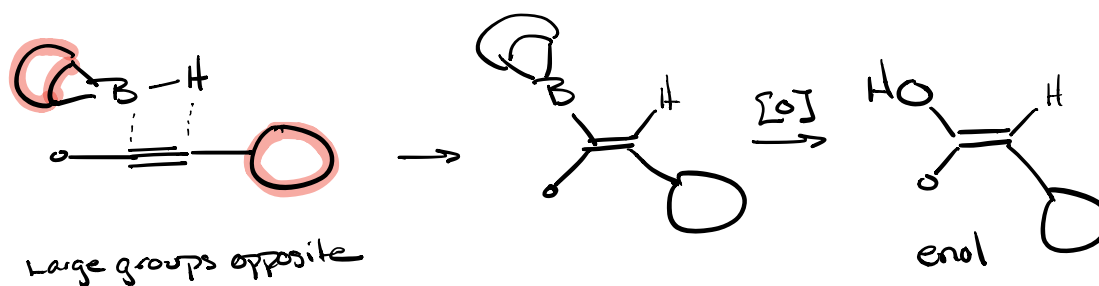


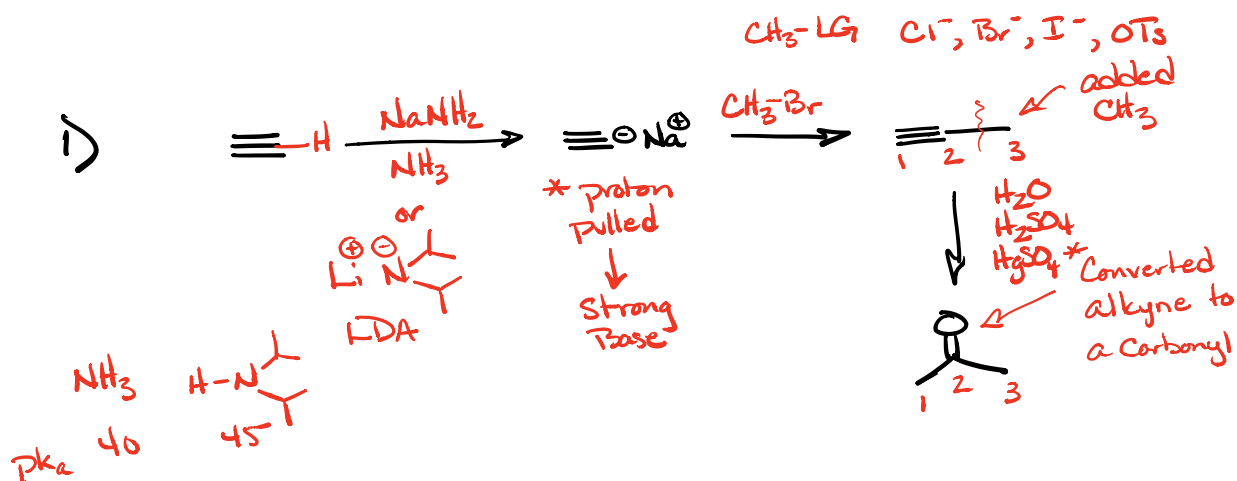
Practice Problems



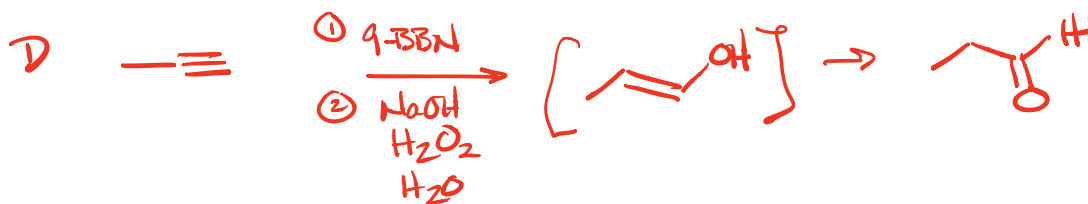
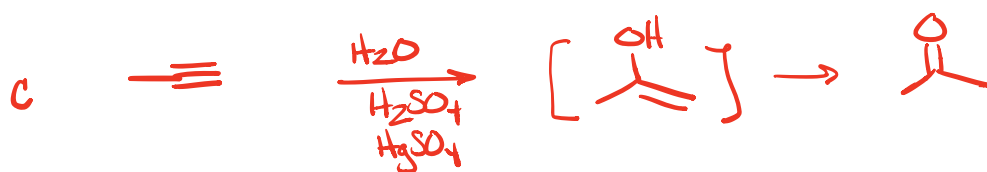
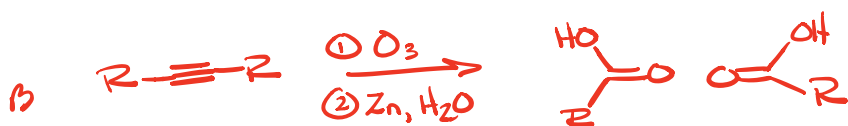
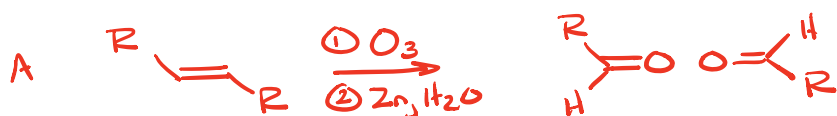
is key to not making mistakes



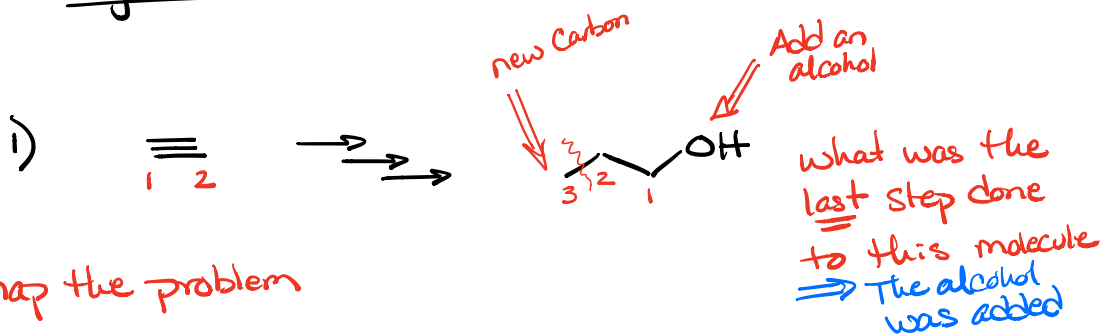
Finding Reagents (Harder)



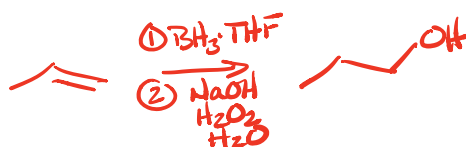
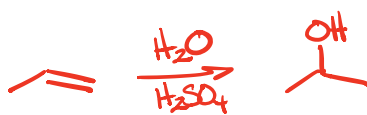
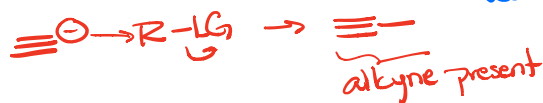
ways to make carbonyls



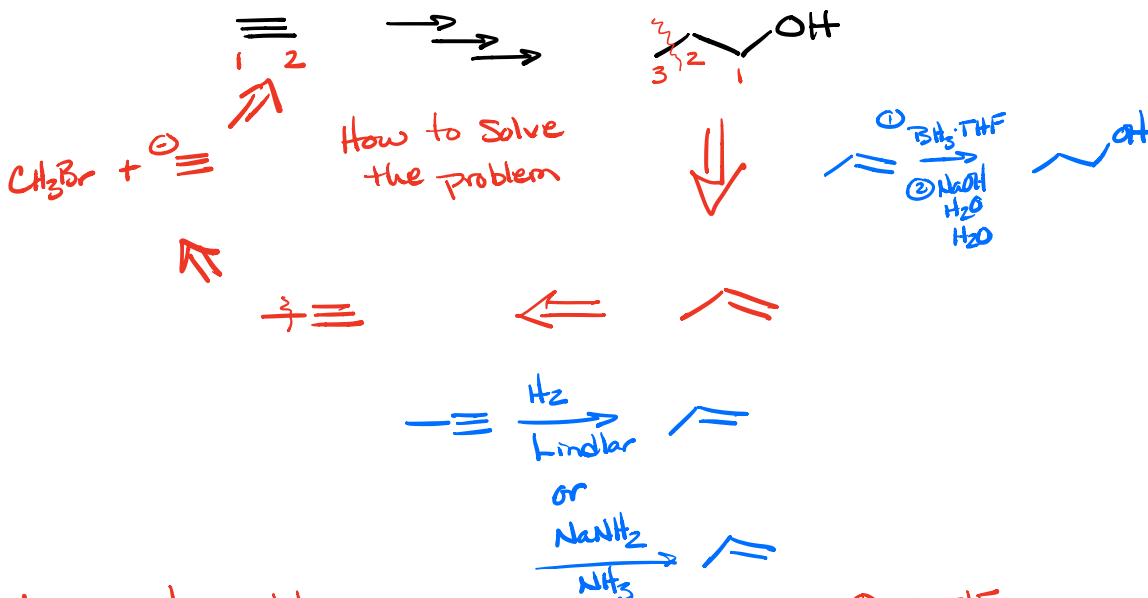
Synthesis Problem



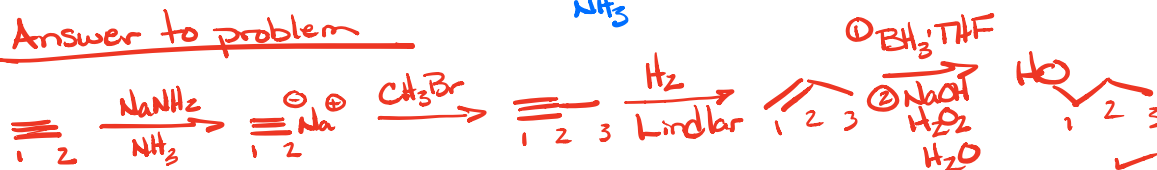
- ① map the problem
- ② Sequencing
- ③ Retrosynthesis
- [④ Sequencing]
- ⑤ work the problem forward

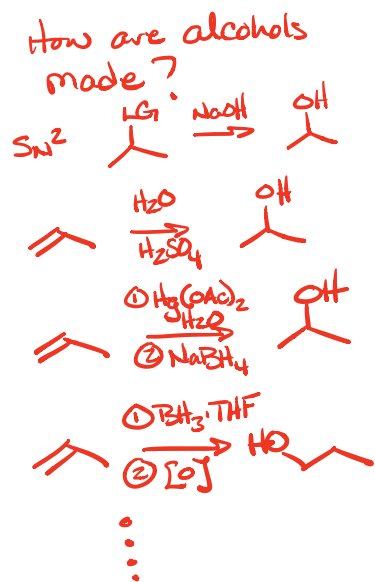


$\Rightarrow$ Retrosynthesis arrow = Represents working backwards



Answer to problem

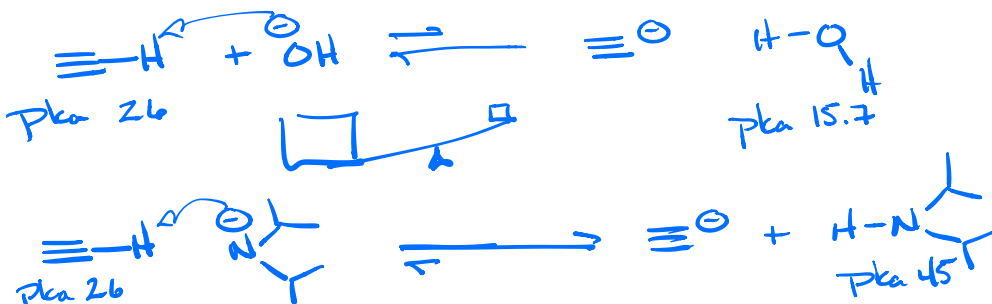
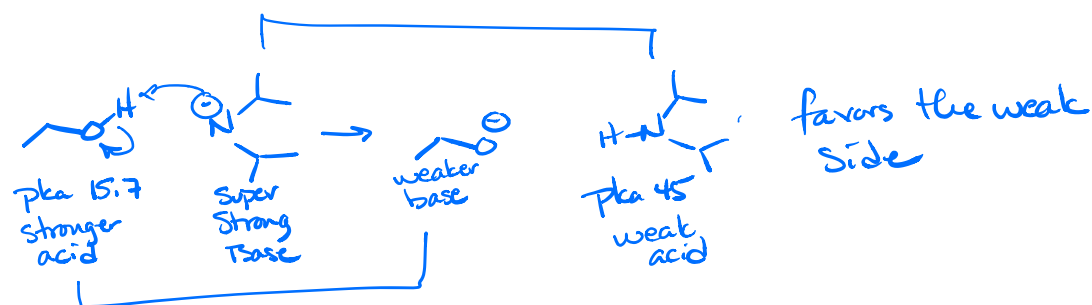


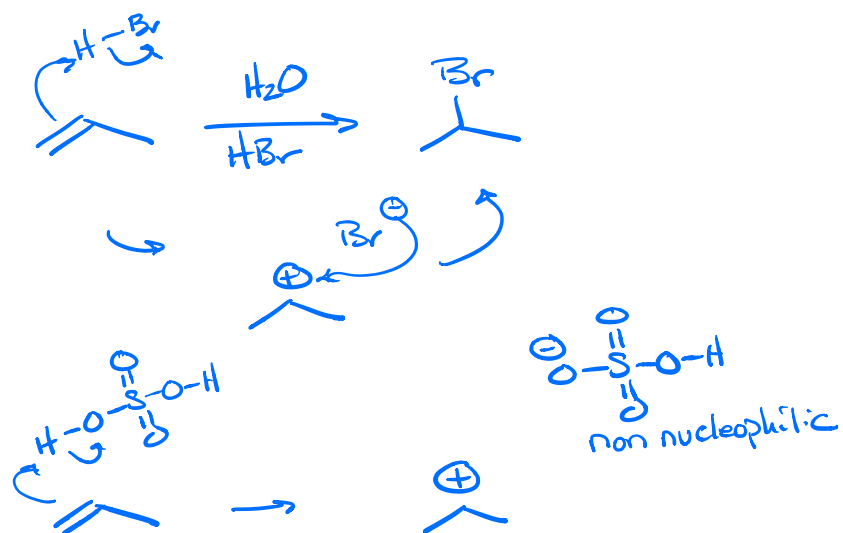


$\equiv \xrightarrow[\text{THF}]{\text{LDA}} \equiv^{\ominus} \text{M}^{\oplus} \xrightarrow{\text{CH}_3\text{Br}} \equiv$

 aprotic

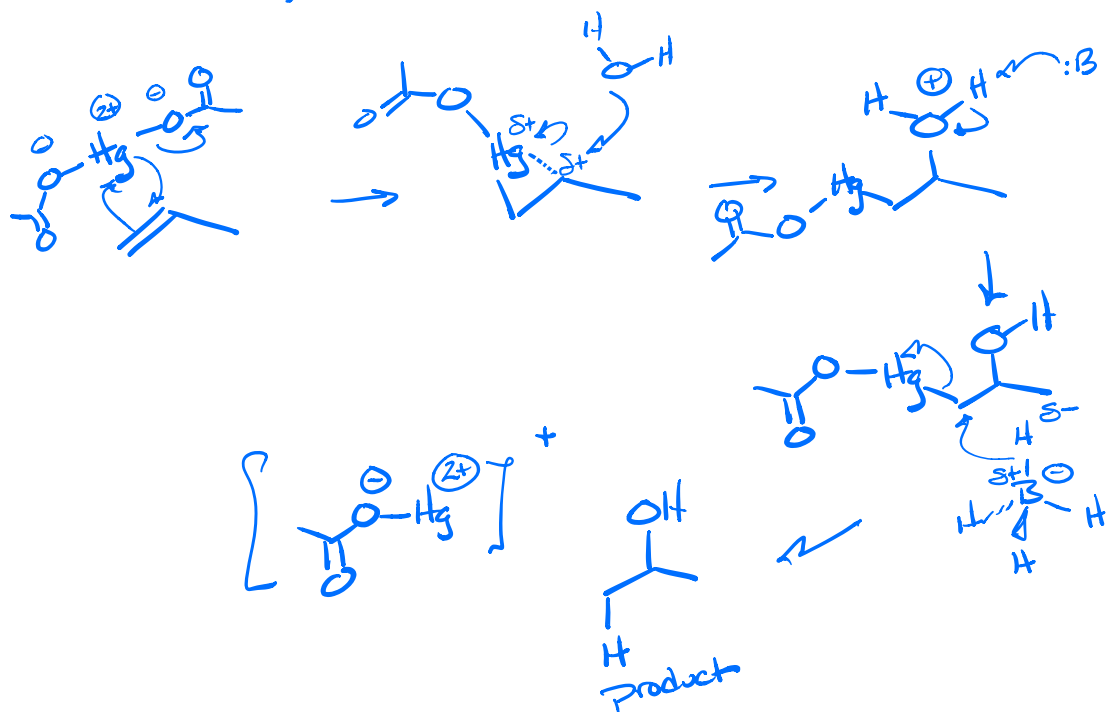
or

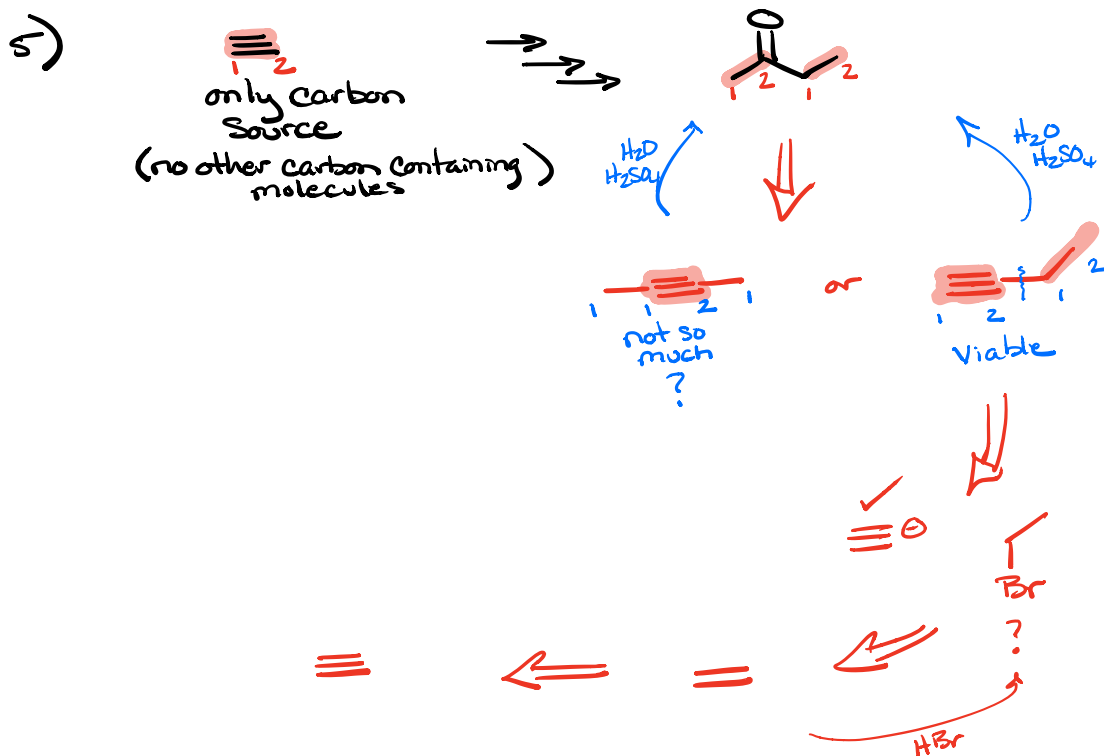
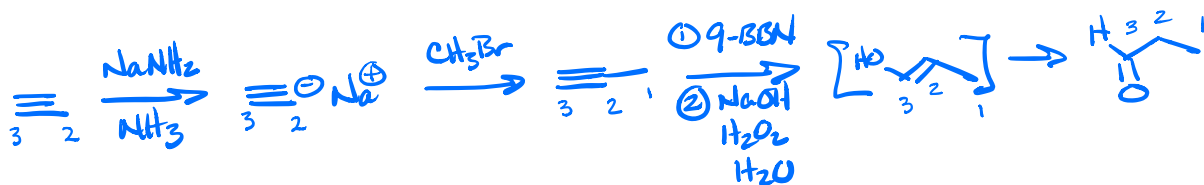
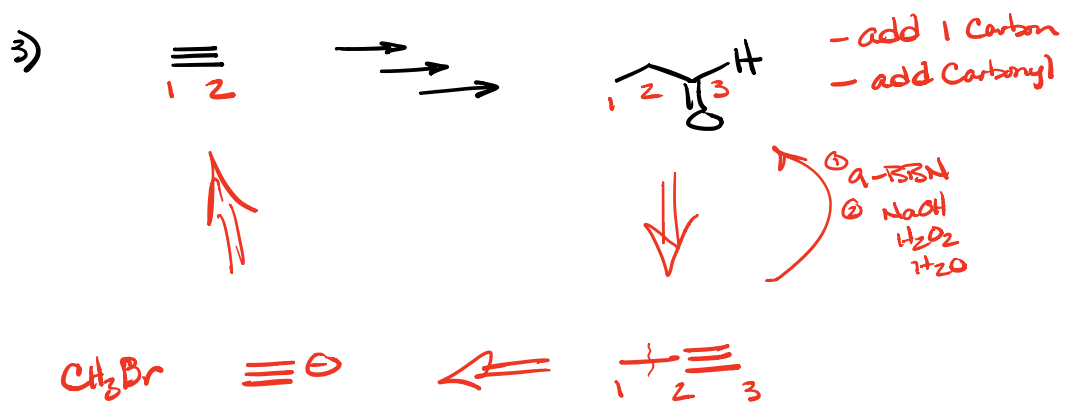


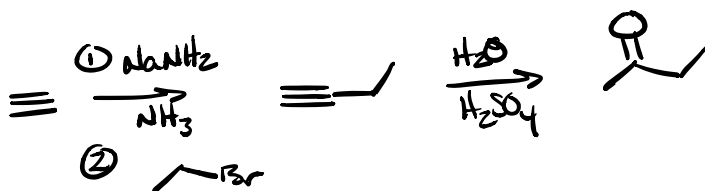
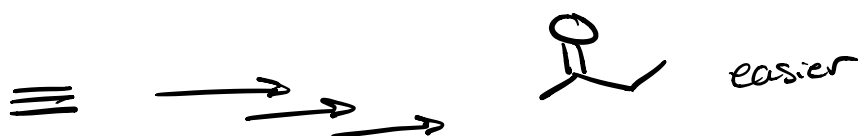
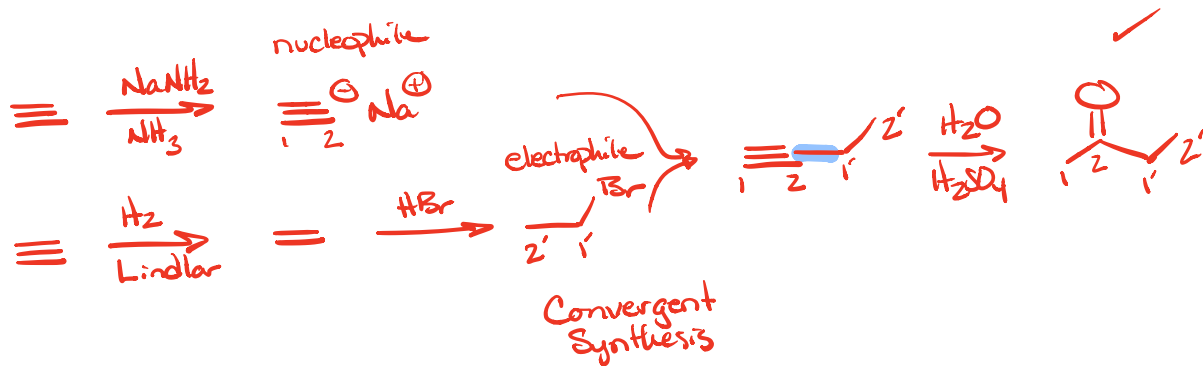


H_2SO_4 or HNO_3 non-nucleophilic
 $\text{HBr}, \text{HCl}, \text{HI}$ nucleophilic

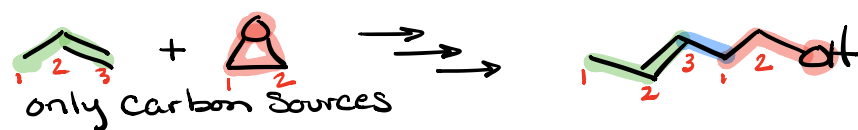
$\left. \begin{array}{l} \text{H}^+ \text{ or } \text{H}_3\text{O}^+ \end{array} \right\}$



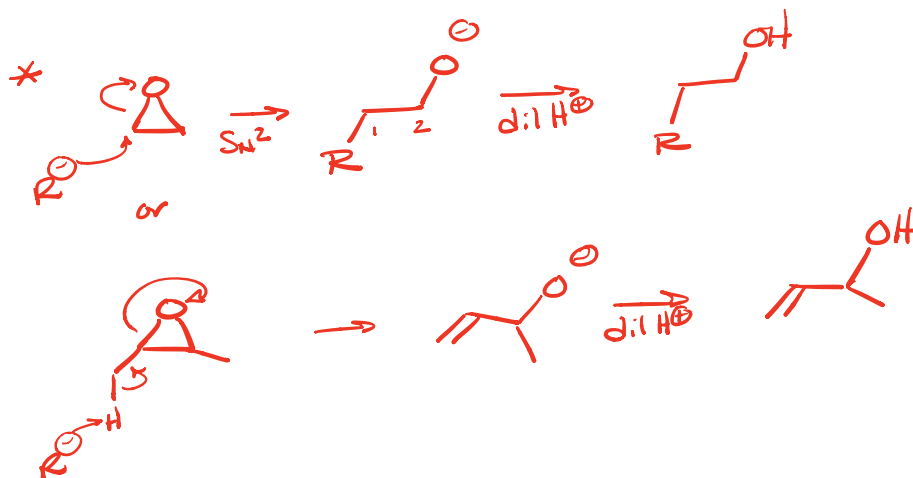




7)



epoxide pattern



7)

