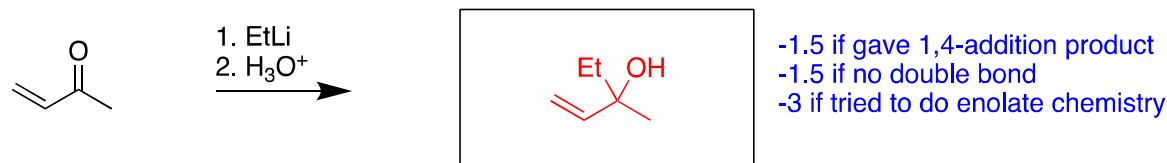
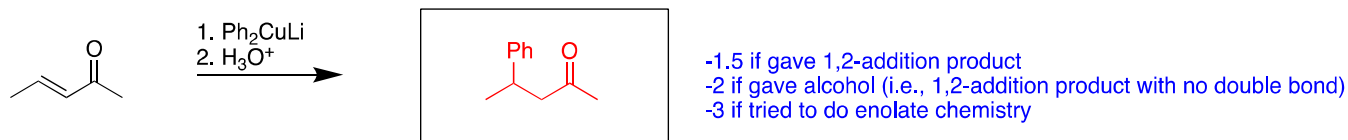
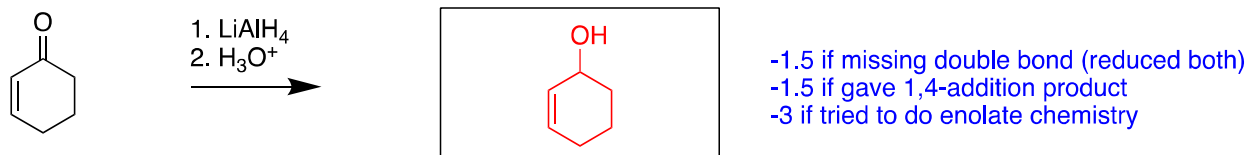


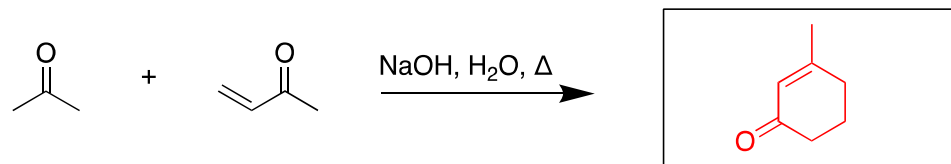
1. Provide the expected major products for each of the following reactions **inside the designated boxes**. Do not show mechanisms. (9 pts; 3 pts each)



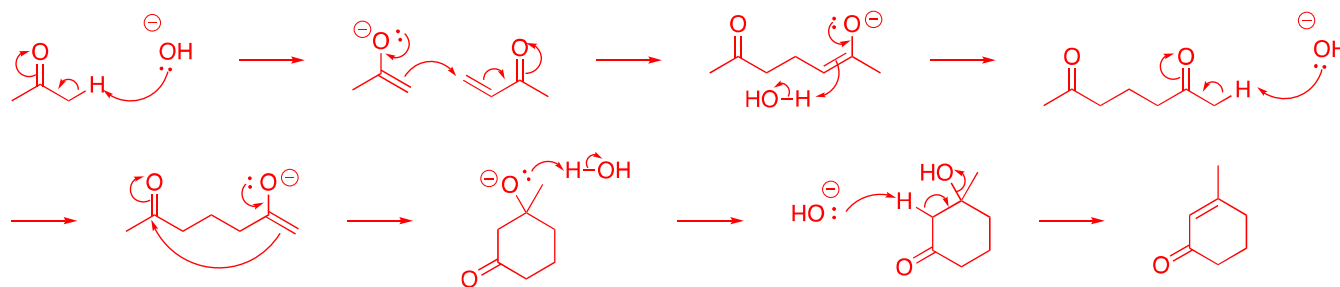
2. For the last problem above, if you used EtMgBr instead of EtLi, would you get the same product distribution? (1 pt)

Circle one: YES or **NO** +1 pt for no, -1 pt for yes

3. Draw a reasonable arrow pushing mechanism for the following *Robinson annulation reaction* **AND** draw the final product inside the designated box (6.5 pts for mechanism, 3 pts for correct product).



+3 pts (-1 pt each if they forgot the Me group or gave the alcohol)



0.5 pt for each set of arrows (7 x 0.5 = 3.5 pts) and 0.5 pt for each intermediate (6 x 0.5 = 3 pts)

4. Smile, you've almost made it through ochem! (0.5 pt)

No, they do not actually have to smile – they just get a free 0.5 pt because #3 didn't break up evenly.