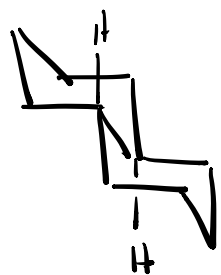
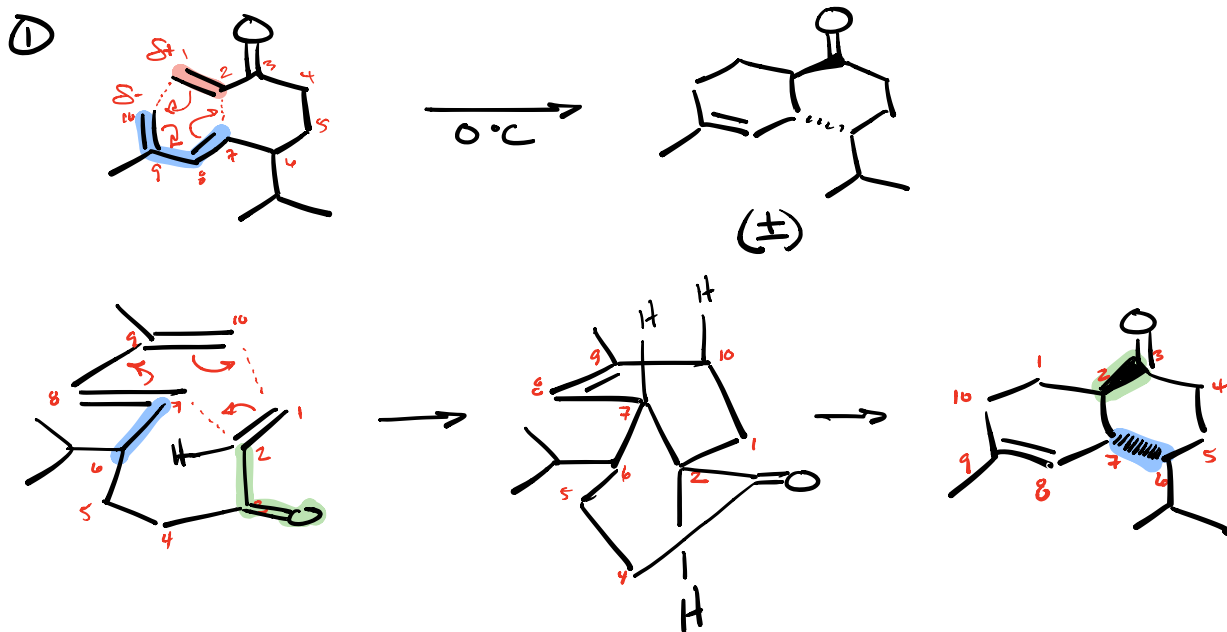
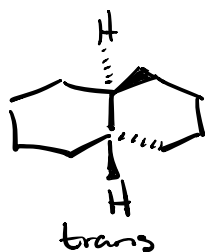


# Diels-Alder Reactions

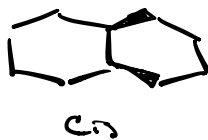
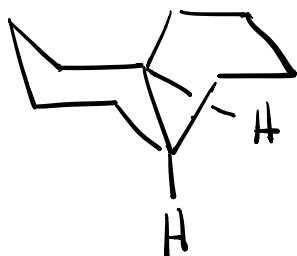
no endo/exo due to ring strain  
 no regioselectivity due to ring strain



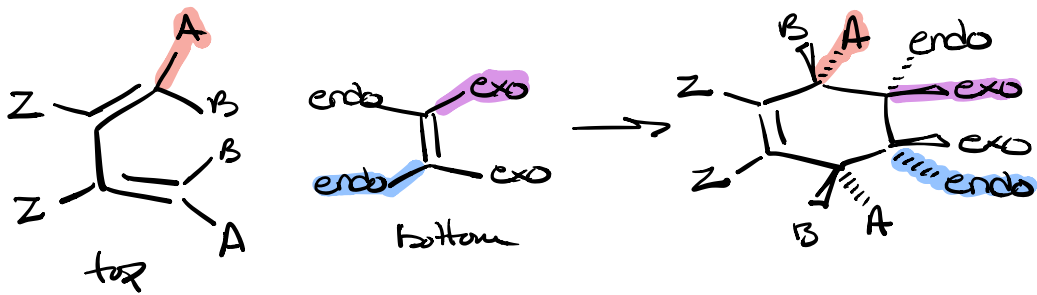
=



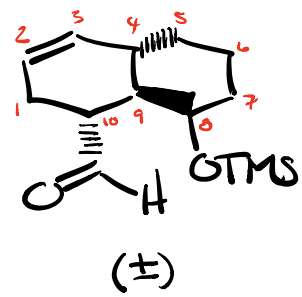
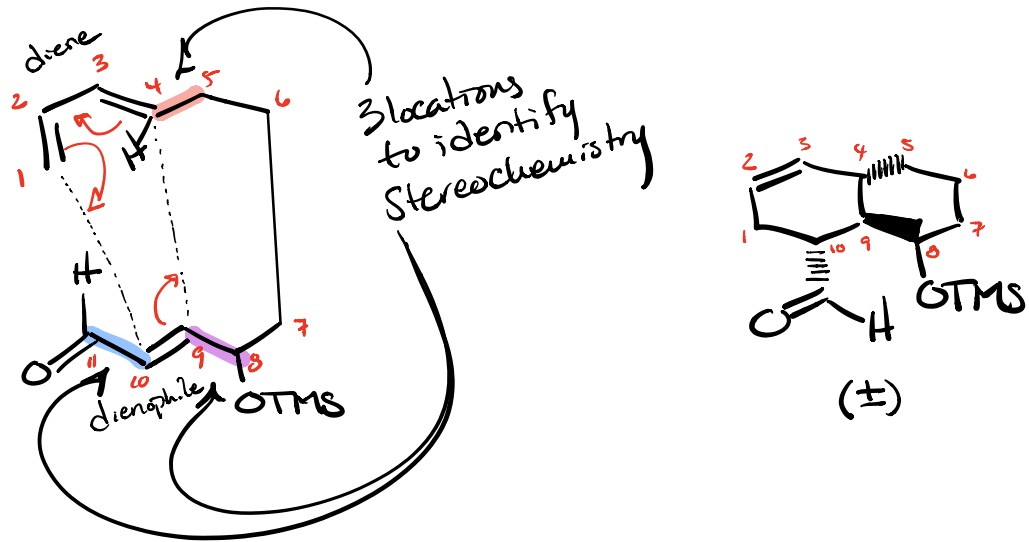
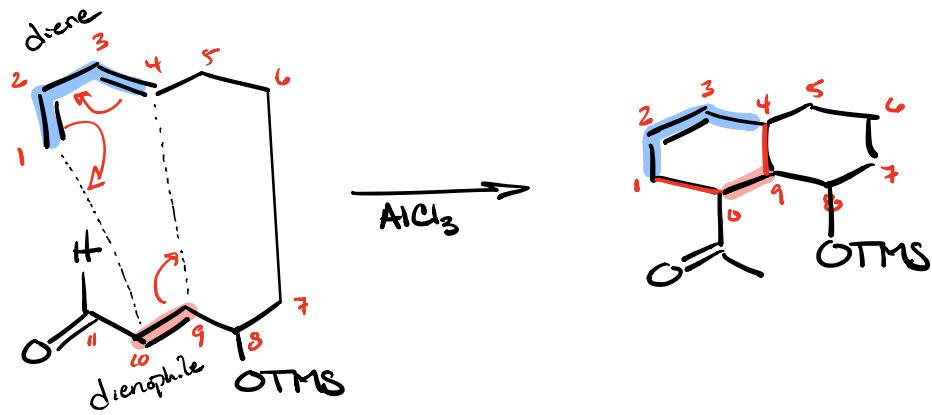
more stable

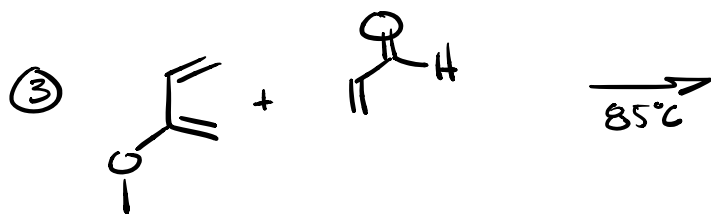
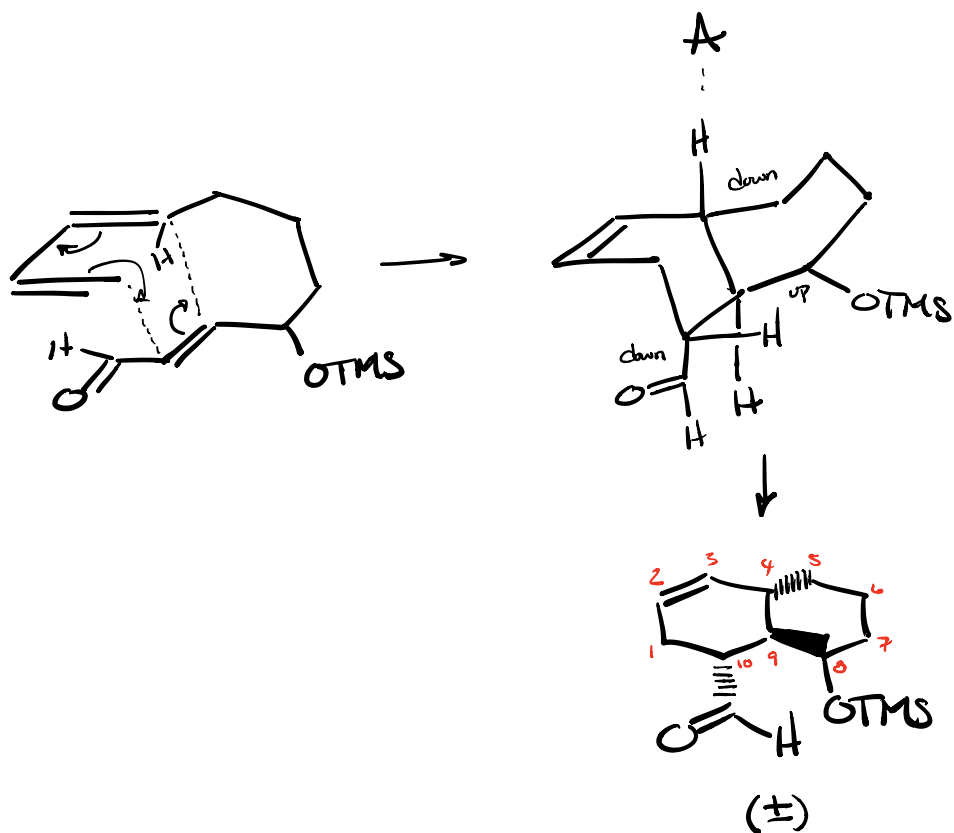


model



②



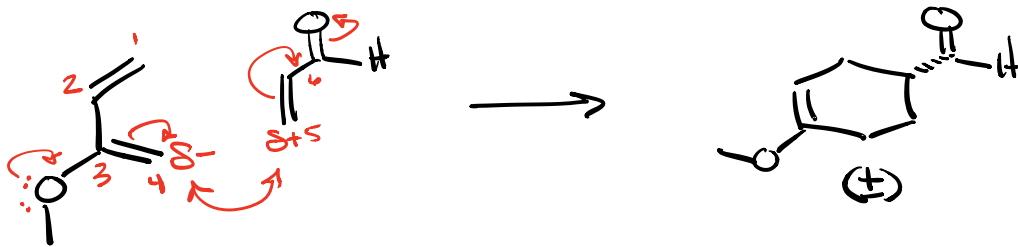


a) find major product

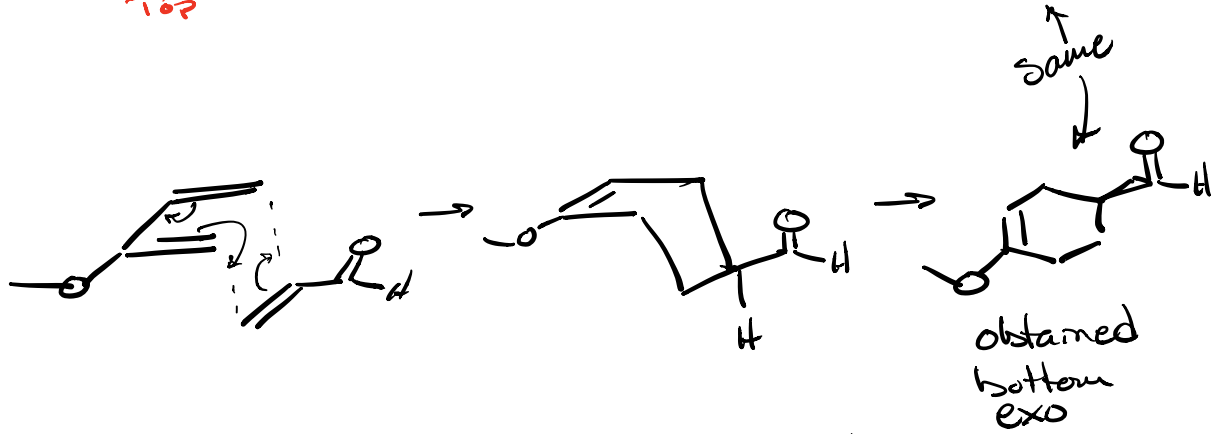
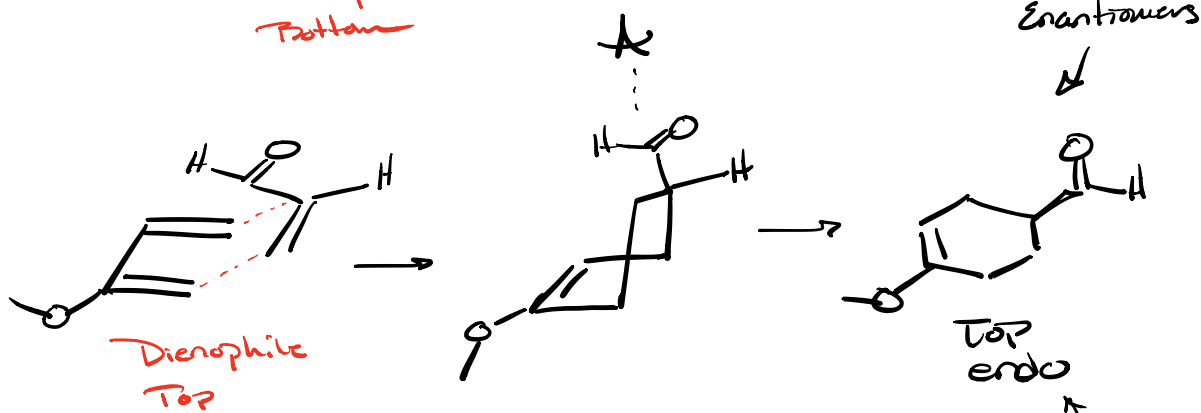
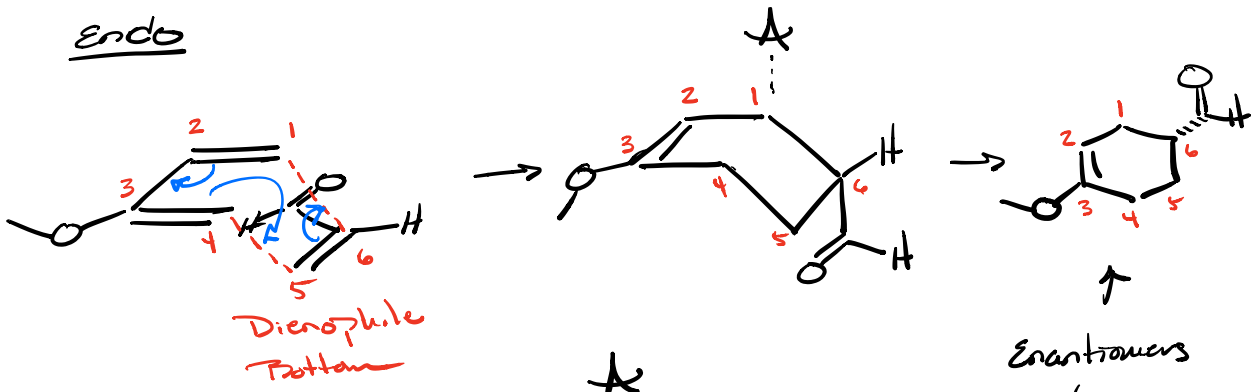
b) Consider exo vs. endo. Does endo vs. exo matter? Explain.

### Jobs

- ① Find  $\delta^-$  on diene &  $\delta^+$  on dienophile ✓
- ② react endo ✓
- ③ draw product  $\Rightarrow$  include (±) ✓
- ④ Assess endo vs exo products ?



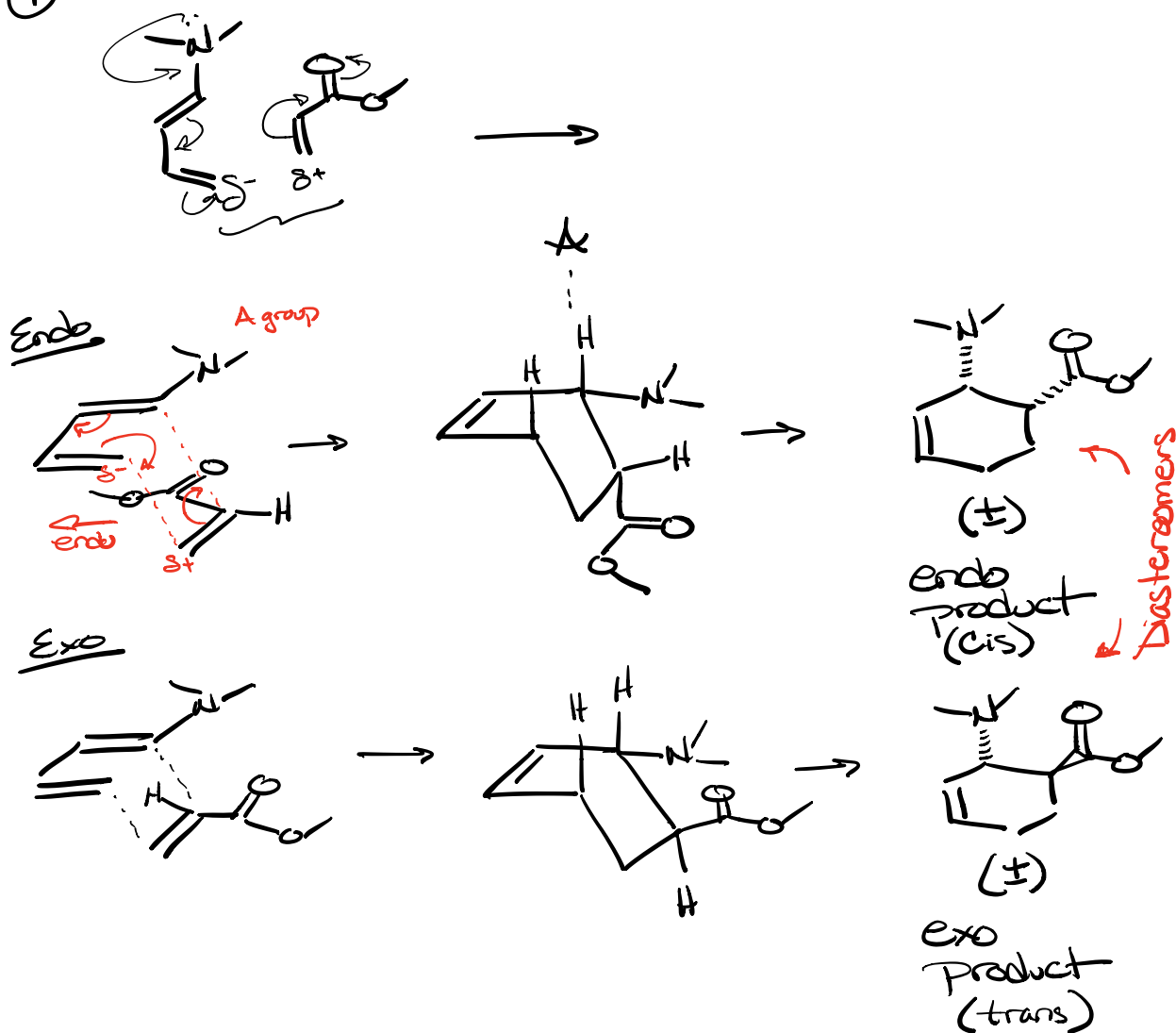
Endo



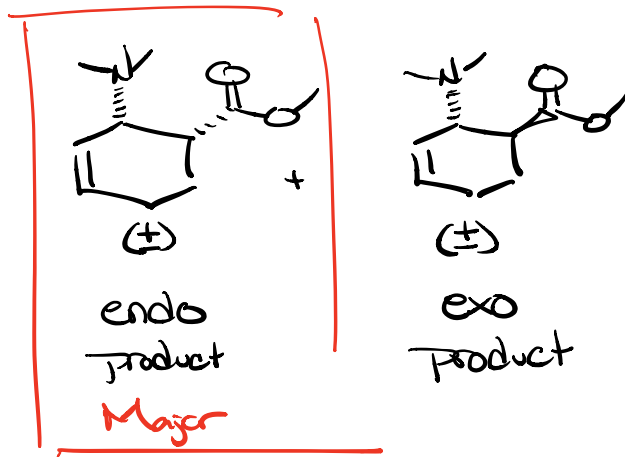
⇒ product has only 1 stereocenter  
 No way to tell endo from exo as  
 products are identical

Give major product & does endo vs. exo matter?

④



\* Two or more stereocenters  
Create diastereomers w/ exo  
vs. endo & it does matter



6

