

(17) Today

8.5 Hydration of Alkenes:
Addition of H₂O by Hydroboration

8.12 and 13: Stereochemistry of addition
reactions

Chap 11

Next Class (18)

Chap 11

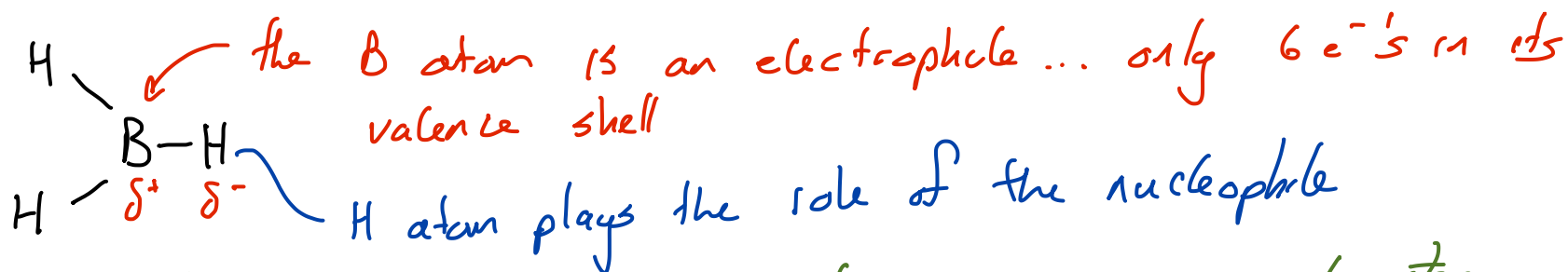
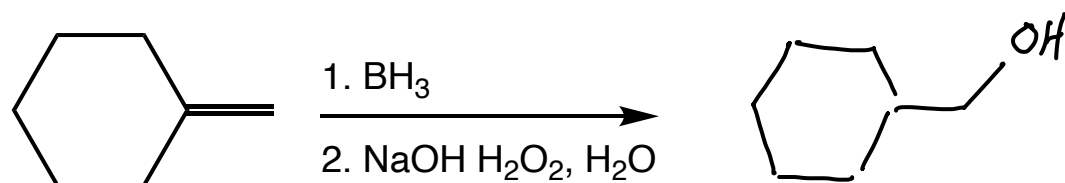
(19) Second Class from Today

Chap 11

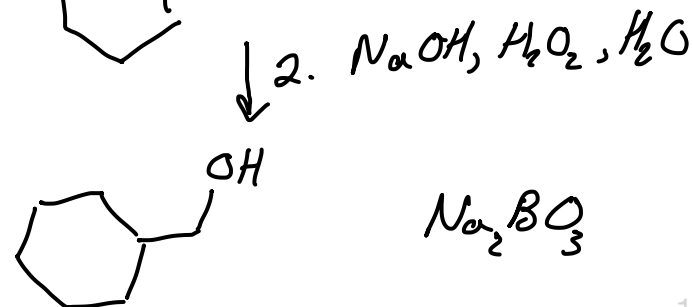
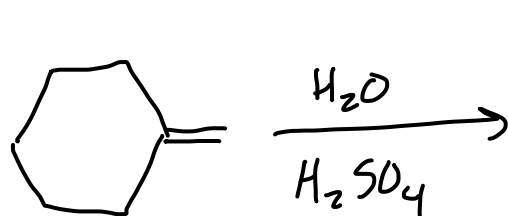
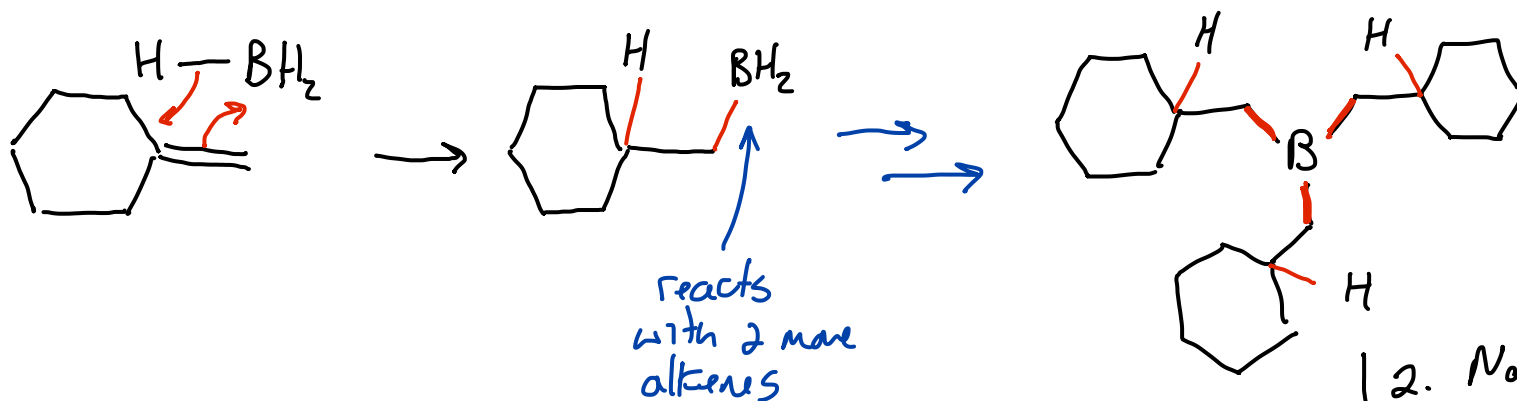
Third Class from Today

Last Exam

Please hand in (or email) reworked test 2 today.

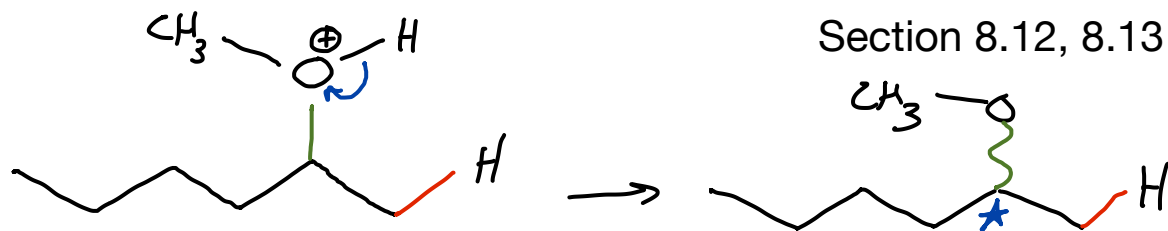
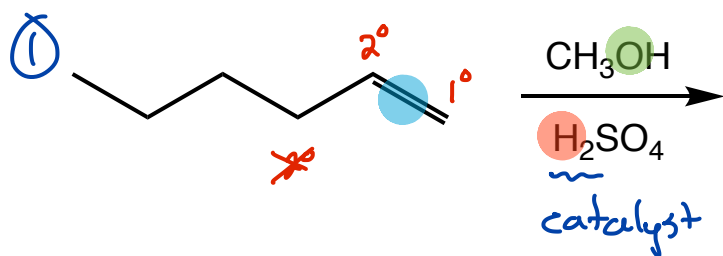


The stereochemistry of the products tells us this rxn is a single step reaction... occurs by only syn addition (B & H always add to the same face)



More on Stereochemistry

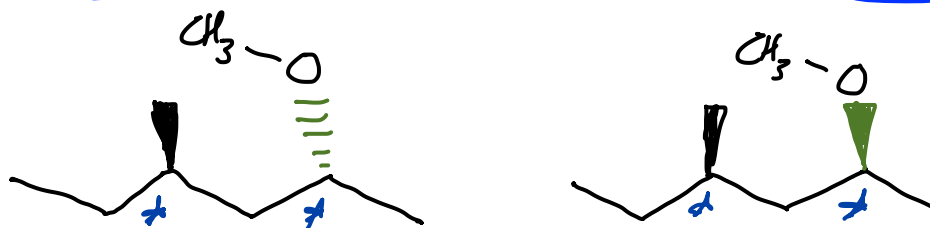
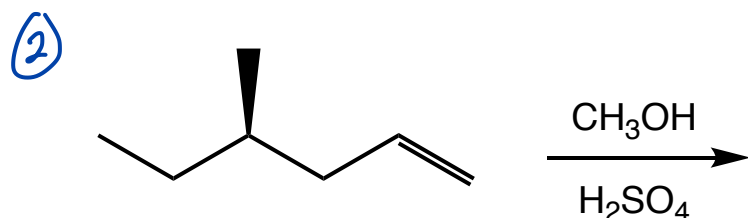
Section 8.12, 8.13



when there is a choice
between releasing C^+ or
 H^+ , H^+ is typically
easier to release

* this C atom is
chiral

enantiomers are
produced

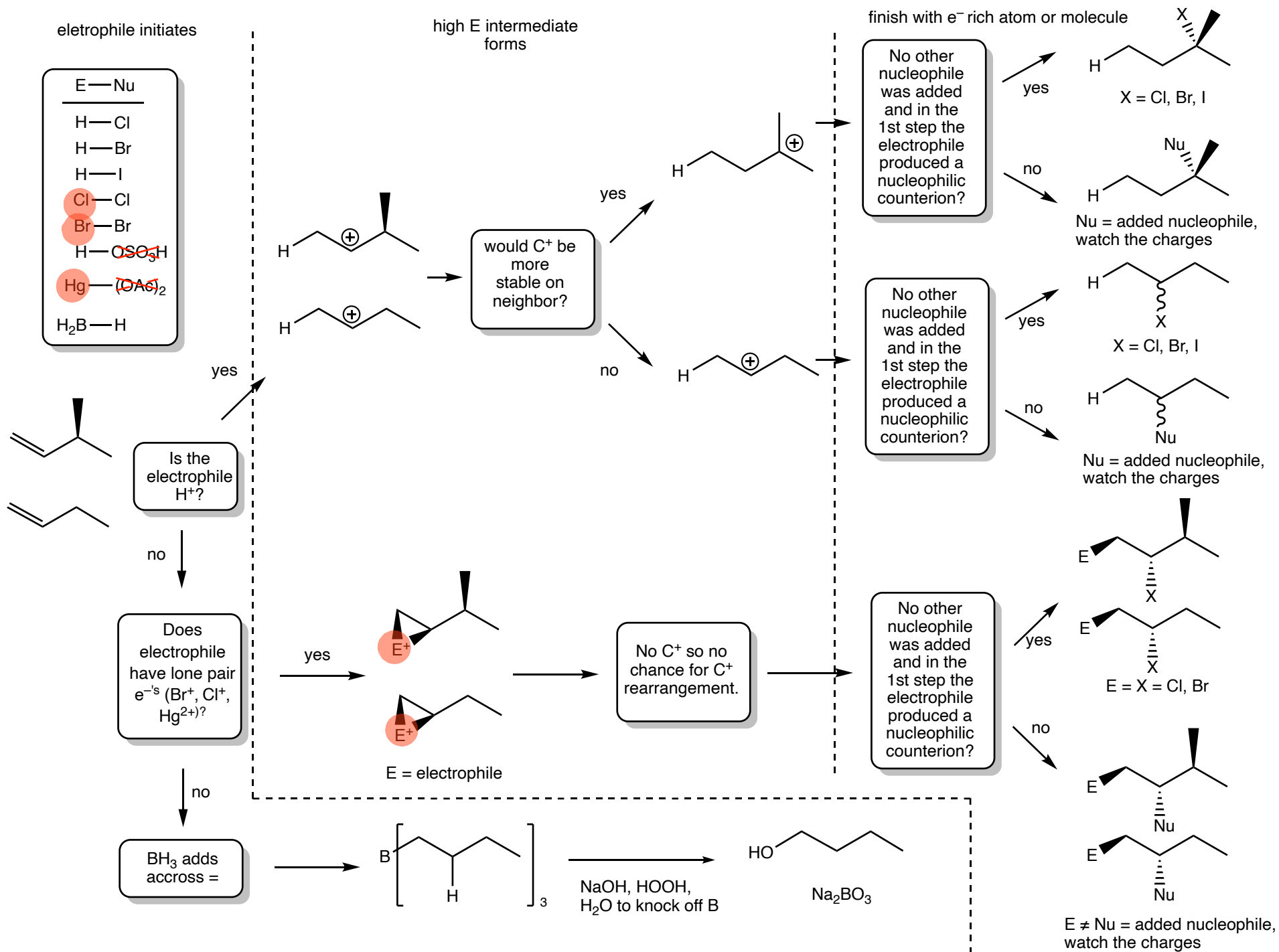


non superposable ... so not the same
mirror images? no

these molecules are
diastereomers

① 50/50 mixture of enantiomers will form (racemic mixture)

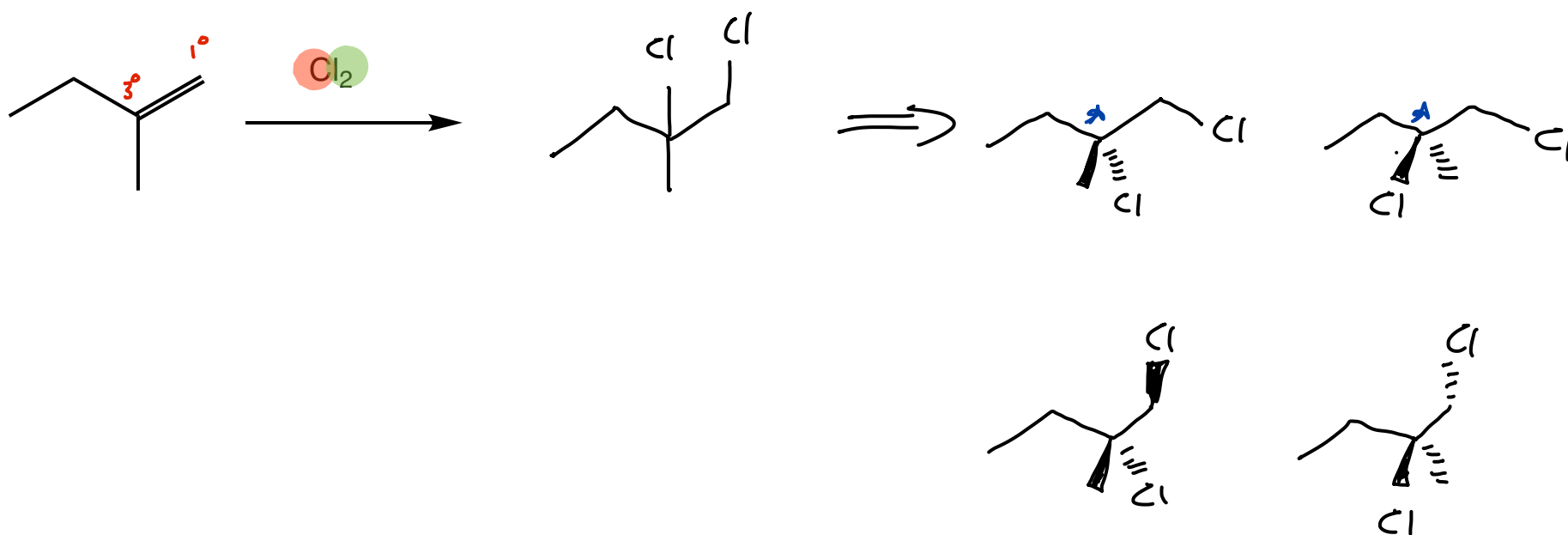
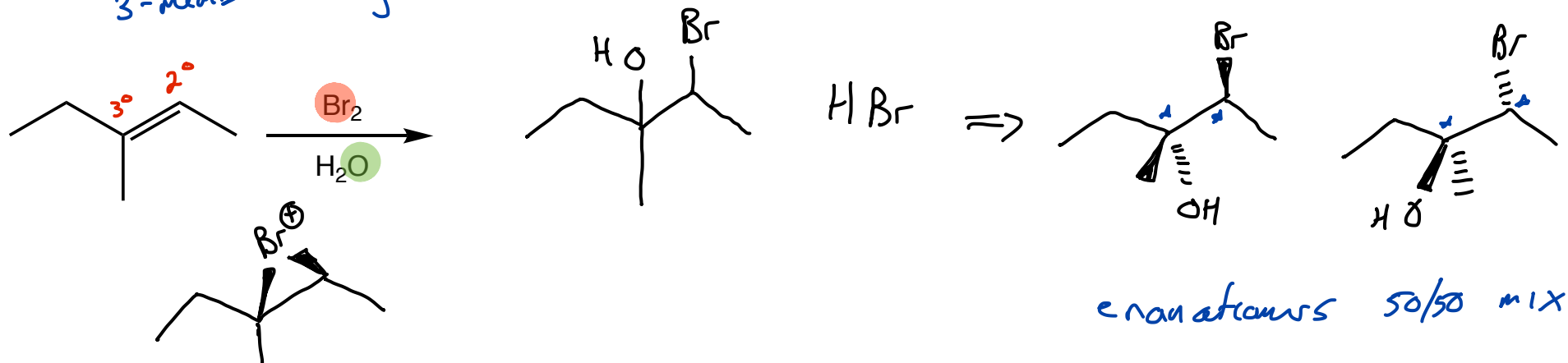
② since diastereomers result one will be preferred over the
other ... we cannot predict it

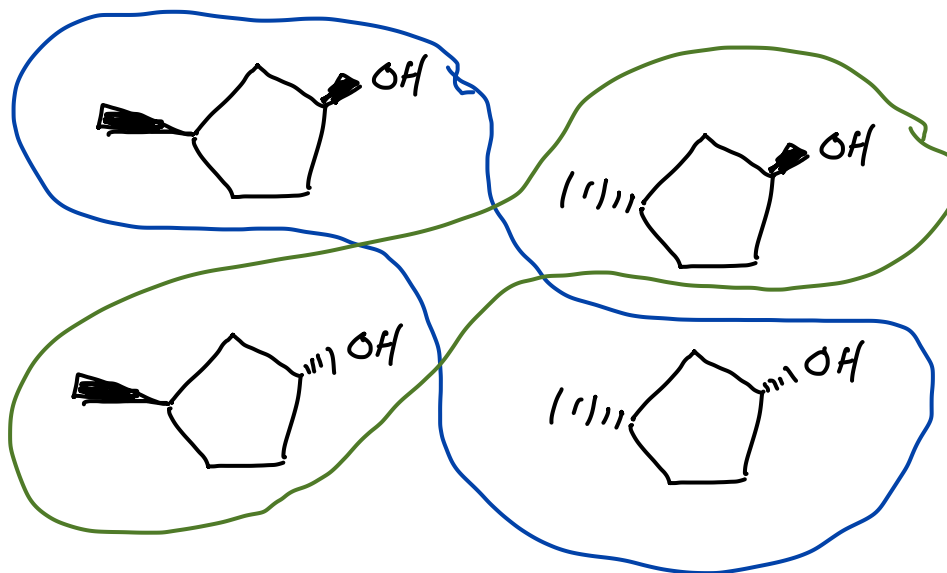
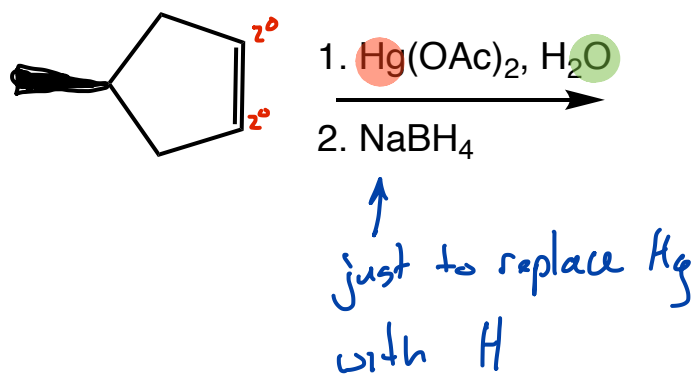
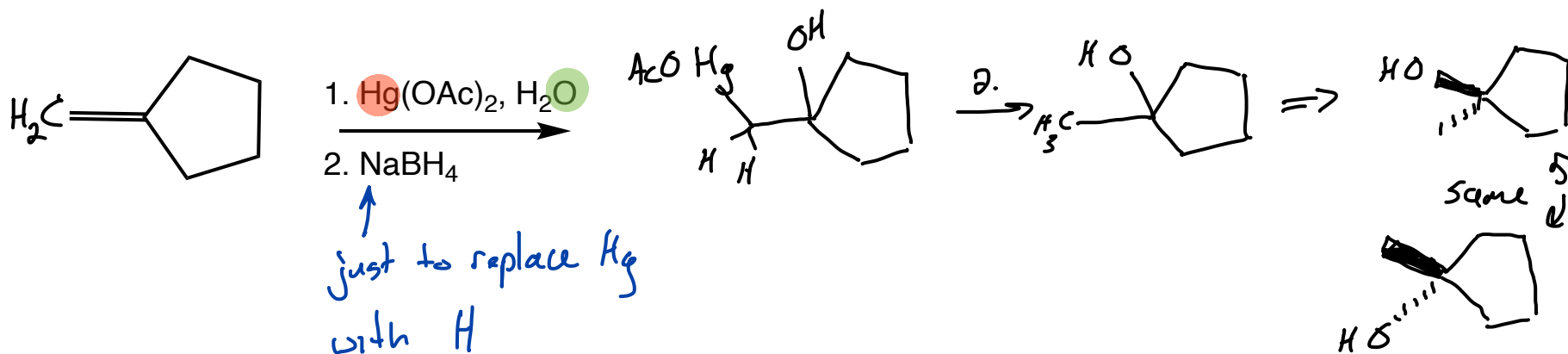


Reactions (predict major products): Remember to indicate stereochemistry

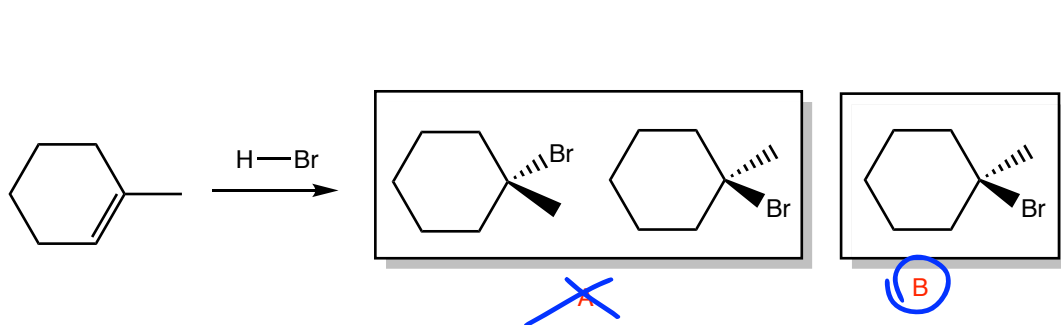
Practice

no C^+ to worry about
3-membered ring intermediate so anti addition

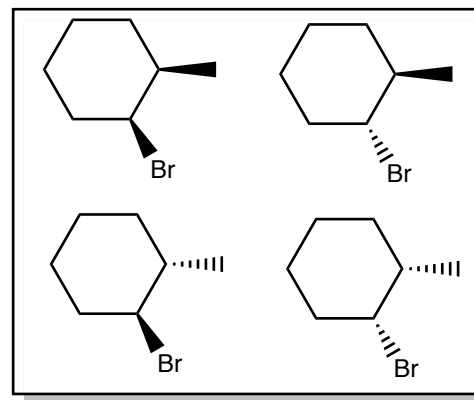




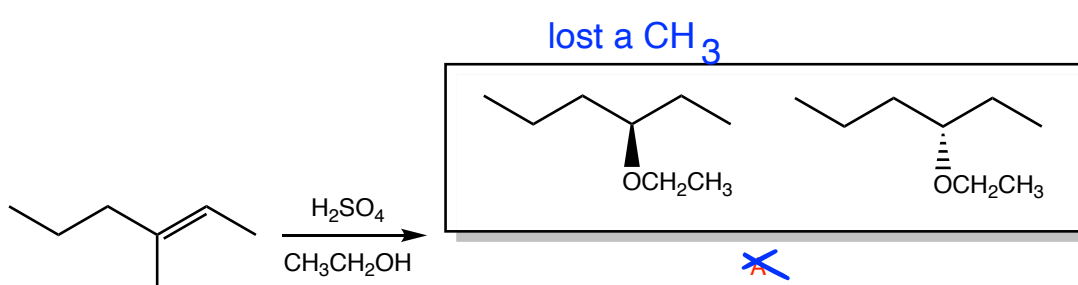
Reactions (predict major products): : Remember to indicate stereochemistry



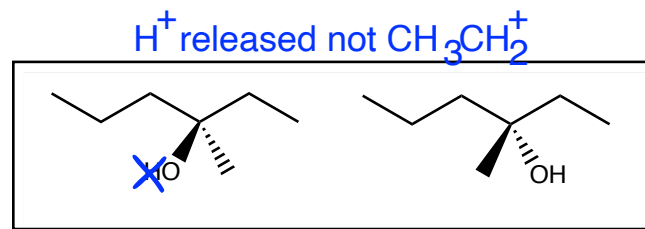
These are the same molecule



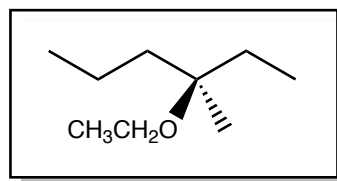
wrong regiochemistry



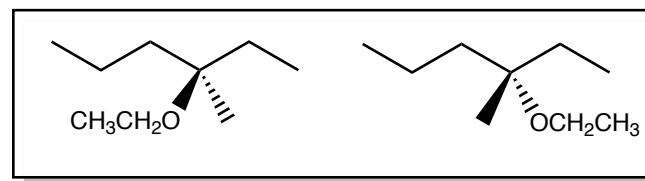
lost a CH_3



H^+ released not CH_3CH_2^+

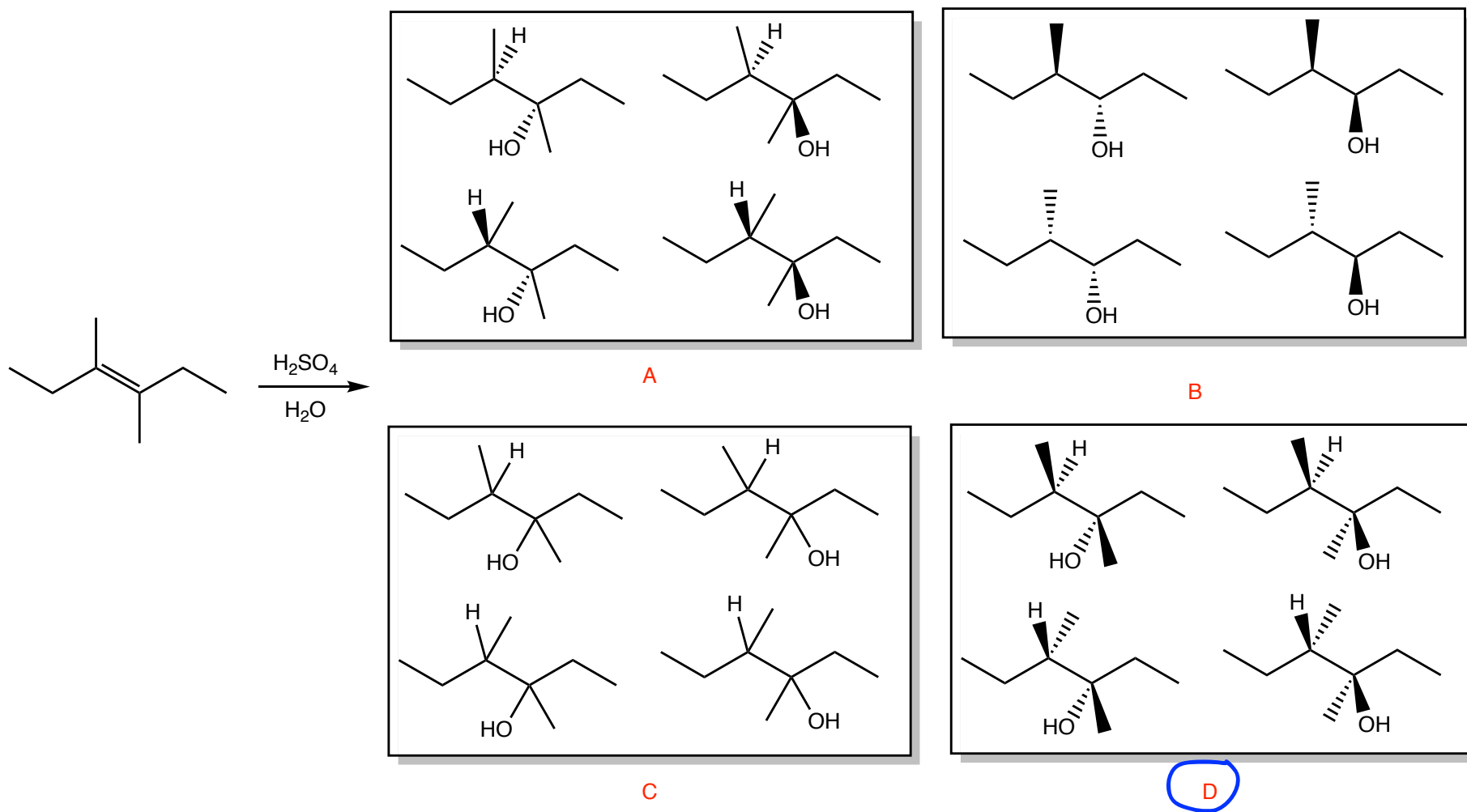


two stereoisomers produced



D

Reactions (predict major products): Remember to indicate stereochemistry



Reactions (predict major products): Remember to indicate stereochemistry

