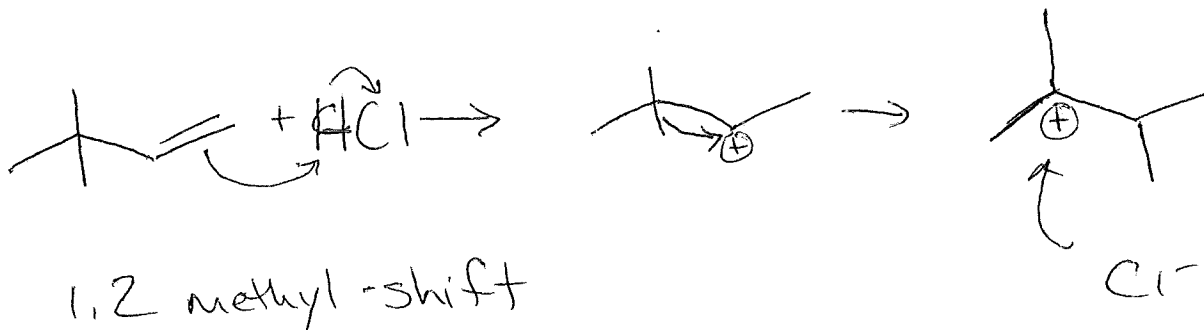
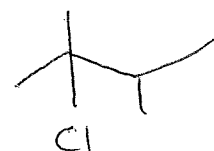


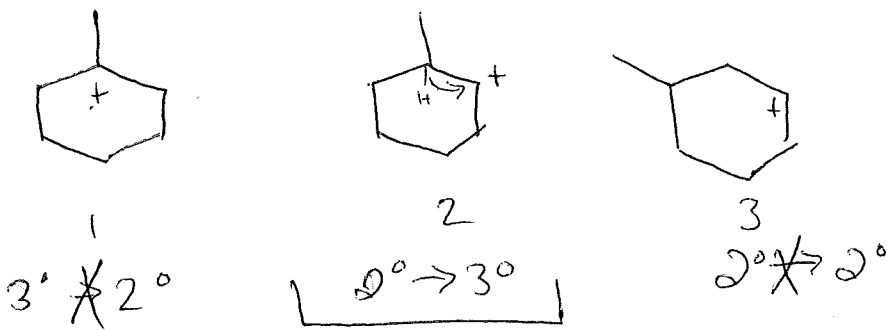
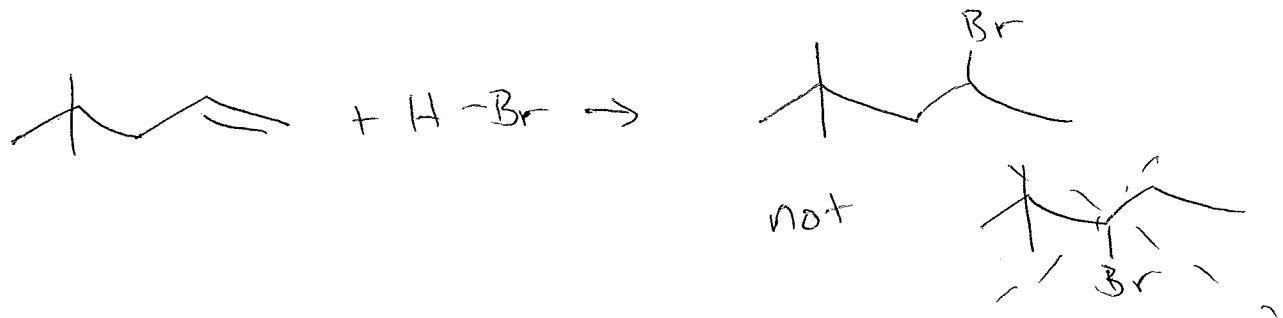
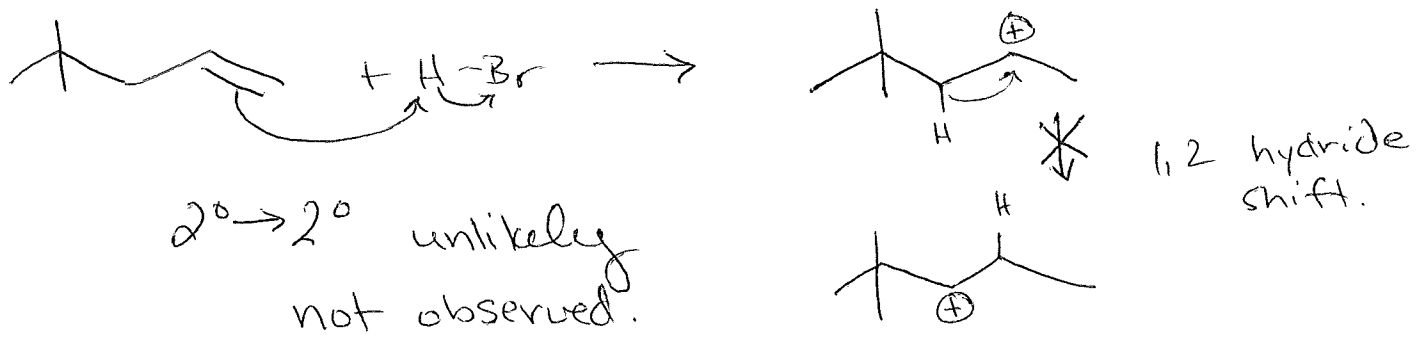
Carbocation rearrangement: More stable carbocation the molecule will rearrange. fast.

* adjacent carbons

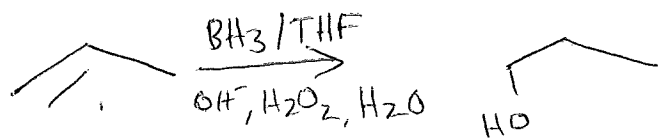
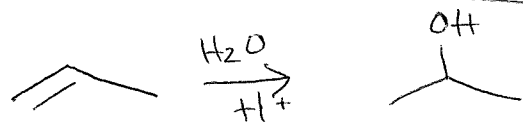


2° → 3° carbocation by shifting a methyl group

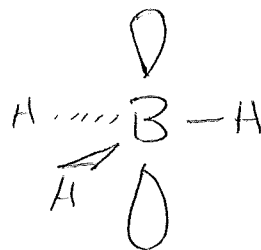




Hydroboration:
 1° alcohol

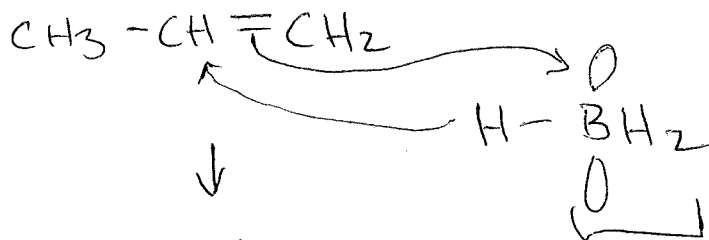
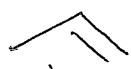


- BH_3 / THF \rightarrow solvent
- OH^-, H_2O_2, H_2O

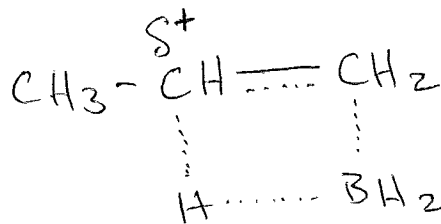


accept electrons
 non-positive
 electrophile
 Lewis-Acid

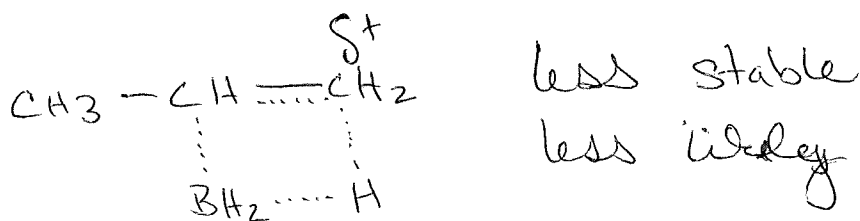
Mechanism for 1st step



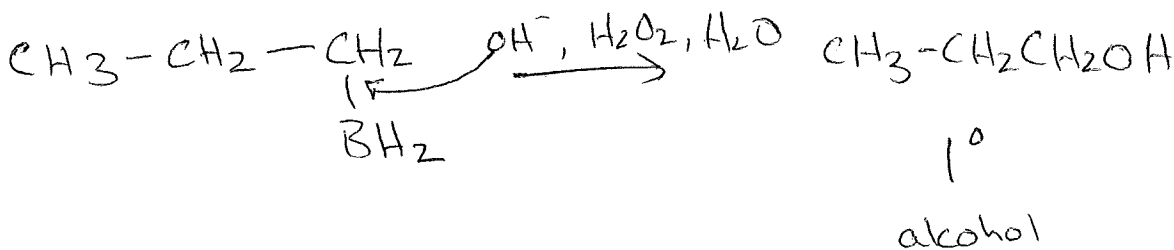
Concerted reaction
bonds made/broken
at the same time (in concert)
2° carbocation / positive



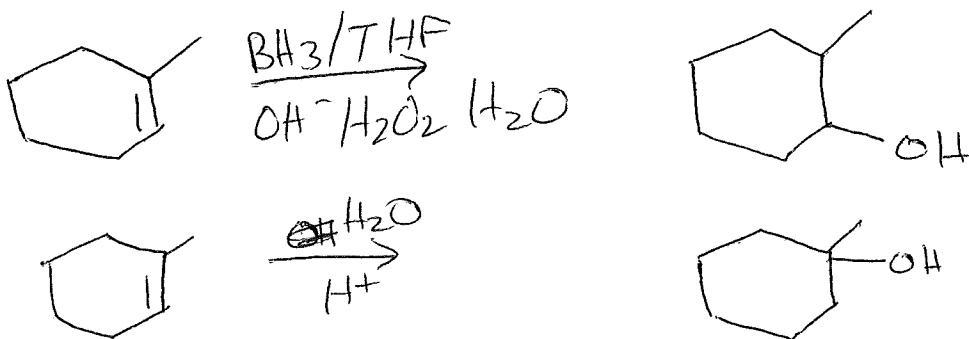
nucleo
electrophile
adds to
C with
more H's



less stable
less likely



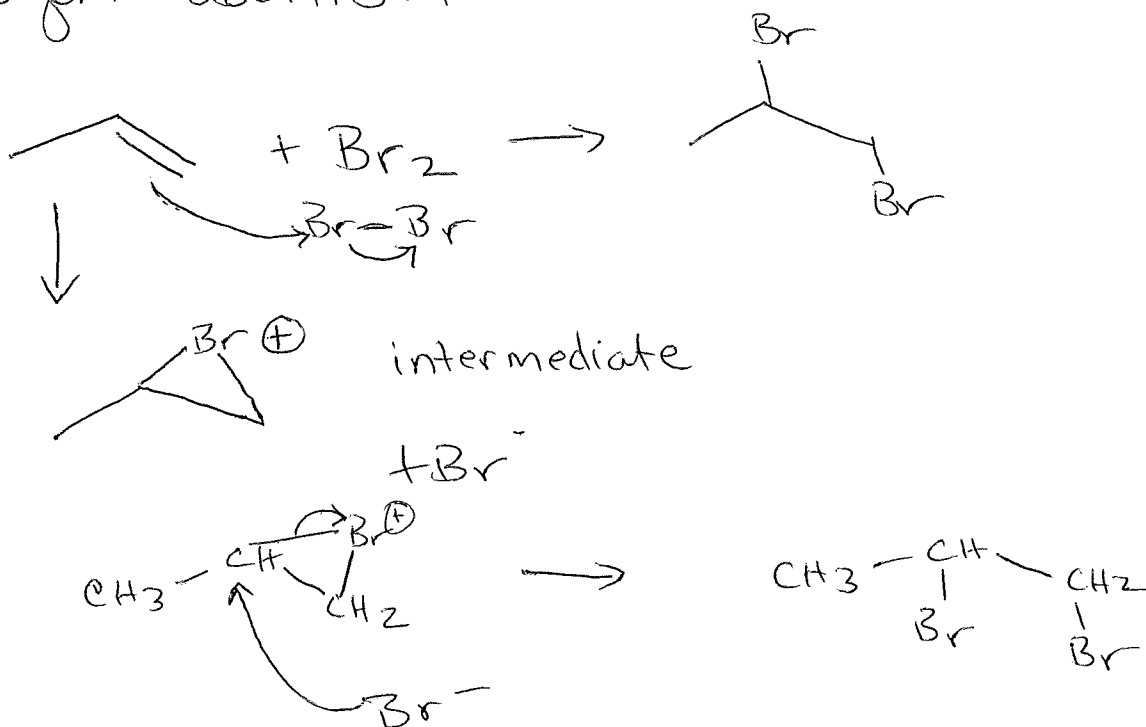
Why BH₃/THF → makes 1° or 2° alcohols
'Anti-Markovnikov'



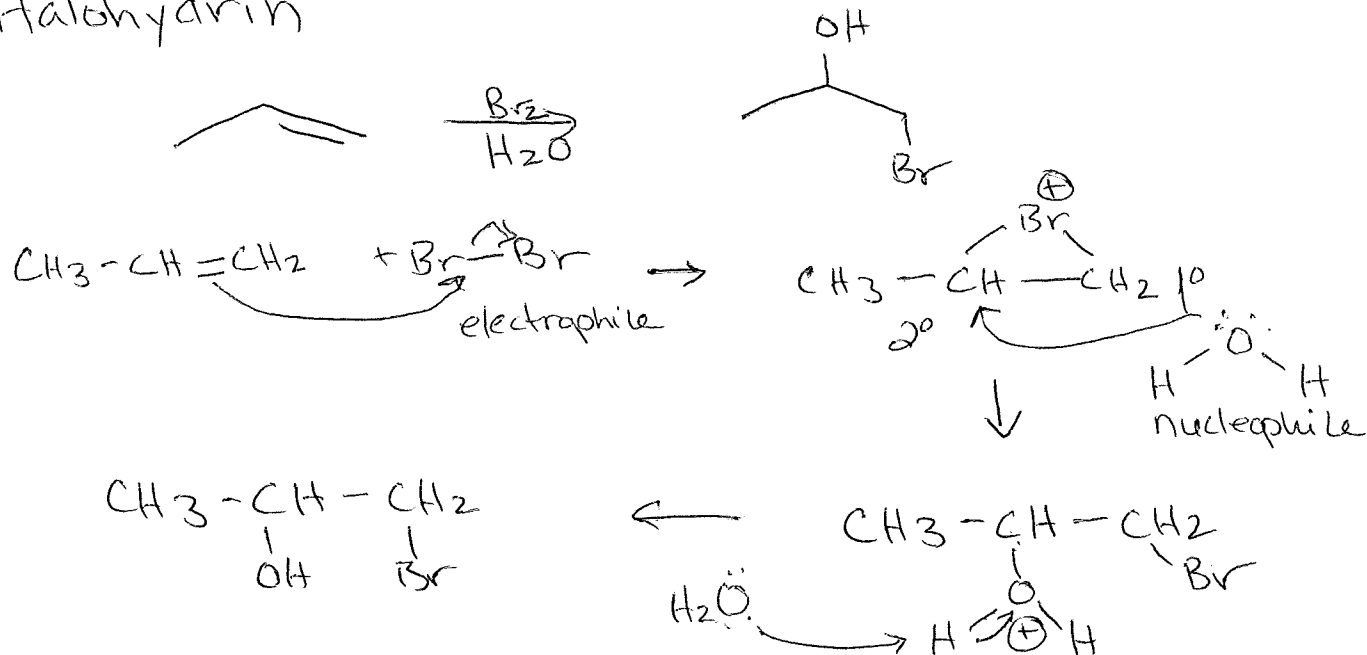
~~Hydroboration~~ Hydroboration

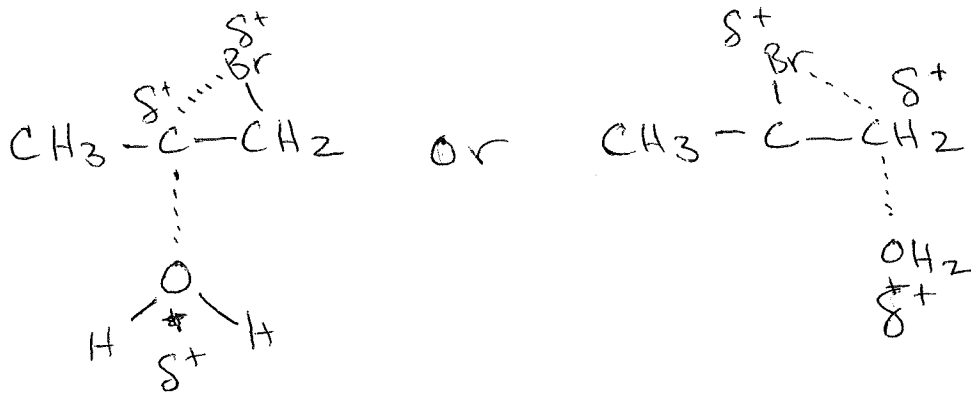
1. Makes alcohols
2. No possibility for rearrangement
No carbocation

Halogen addition



Halohydrin





stable b/c 2° δ^+

Ozonolysis (no mechanism)

breaking with ozone

