

* Conjugated Dienes Warm-up + Application Answers

①



Non-Conjugated



Conjugated



Cumulated

② True: ΔH hydrogenation: More Conjugation = more stable

③ Electron Delocalization

④ 8

⑤ bonding: constructive

⑥ antibonding: destructive

⑦ 1,3-butadiene: 4:4:0:3

⑧ Electrophilic Addition: allylic C^+

⑨ 1,2: $H + X$ add next door to each other

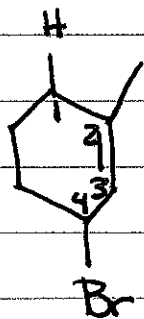
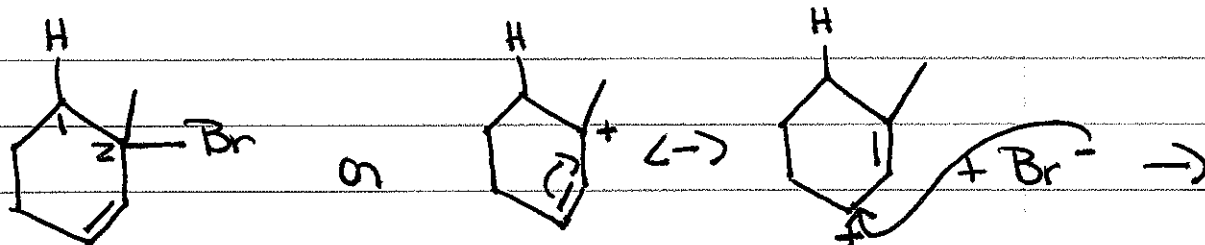
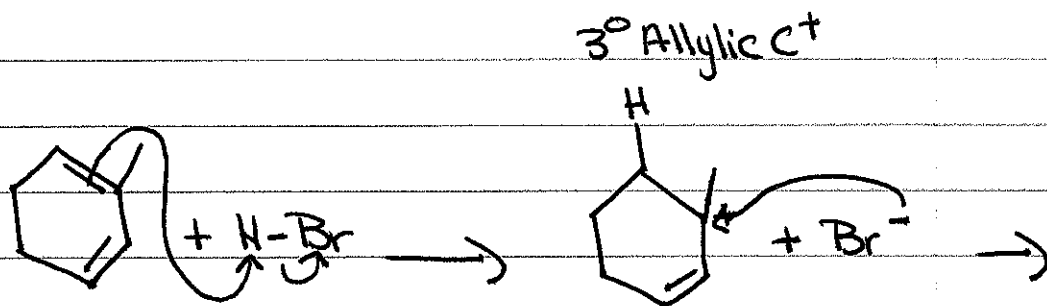
1,4: $H + X$ add w/ 2 C between them

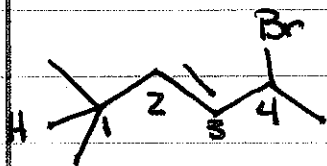
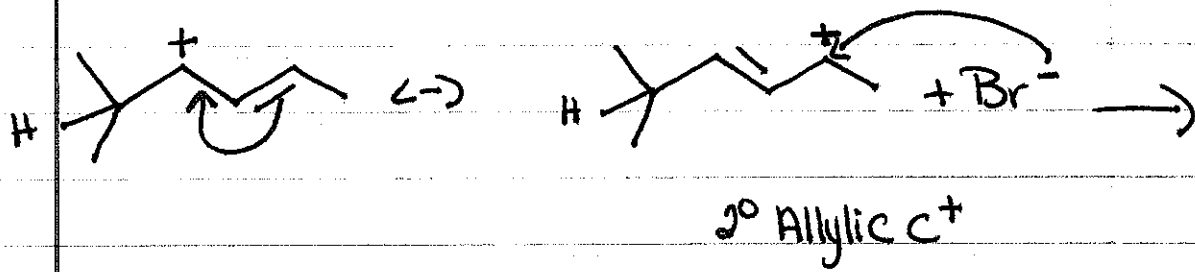
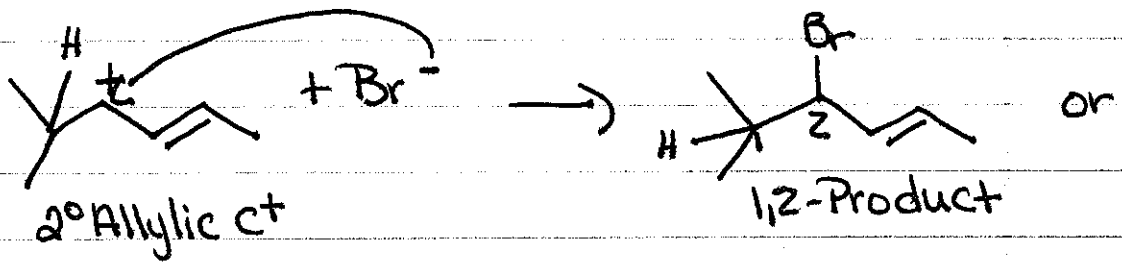
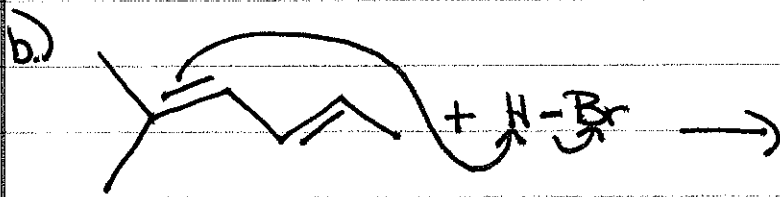
Kinetic = most stable C^+ intermediate
Thermodynamic = most stable $C=C$ product

(10) Temperature

(11)

a.)





1,4-Product