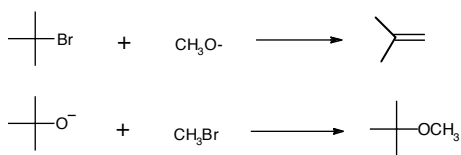


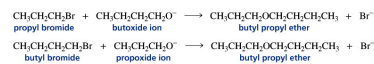
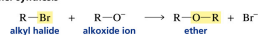
Returning to Sn2 and E2:
Considering the differences



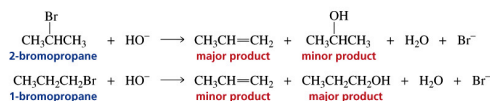
Can you explain the products?

Substitution and Elimination Reactions
in Synthesis

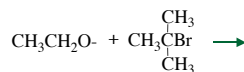
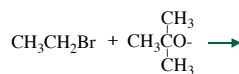
Williamson ether synthesis



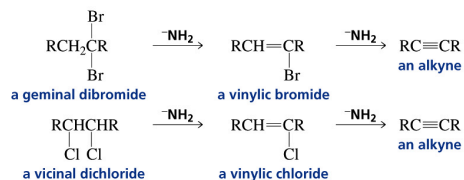
A hindered alkyl halide should be used if you want to synthesize an alkene



Which reaction produces an ether?

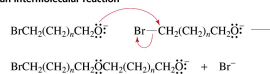


Consecutive E2 Elimination Reactions:
Alkynes

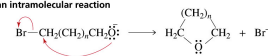


Intermolecular vs. Intramolecular Reactions

an intermolecular reaction



an intramolecular reaction



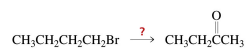
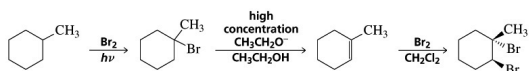
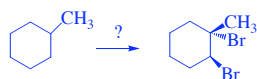
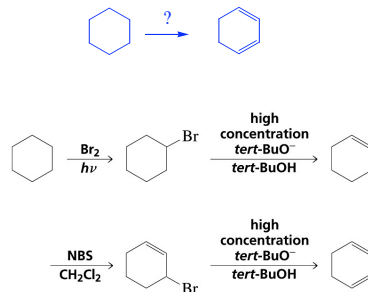
- A low concentration of reactant favors an intramolecular reaction
- The intramolecular reaction is also favored when a five- or six-membered ring is formed

Three- and four-membered rings are less easily formed

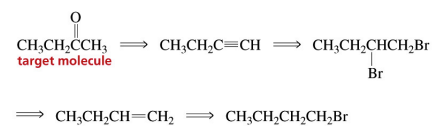
Three-membered ring compounds are formed more easily than four-membered ring compounds

The likelihood of the reacting groups finding each other decreases sharply when the groups are in compounds that would form seven-membered and larger rings.

Designing a synthesis ...



retrosynthetic analysis



synthesis

