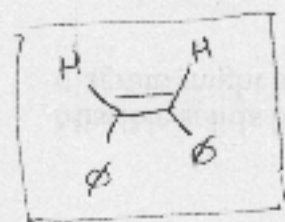
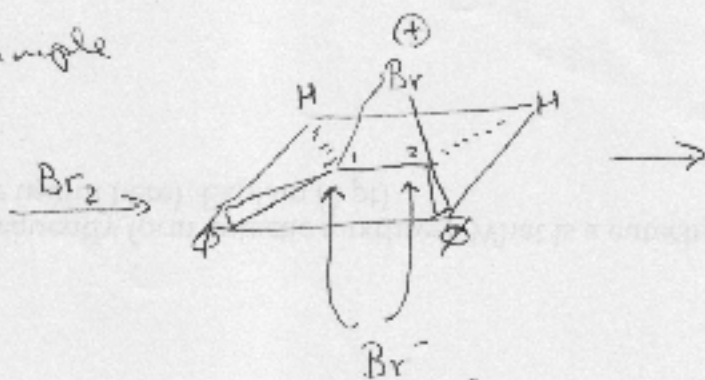


Products from Bromination of Alkenes

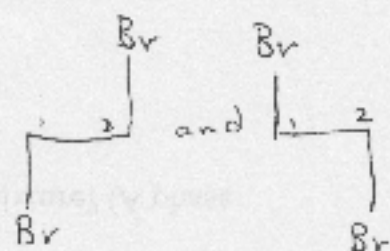
cis-Alkene example



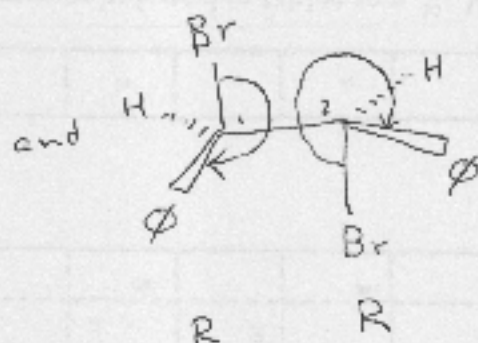
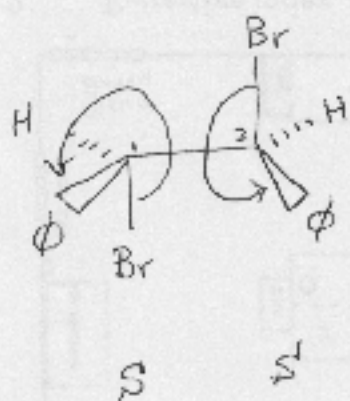
cis-Stilbene is planar



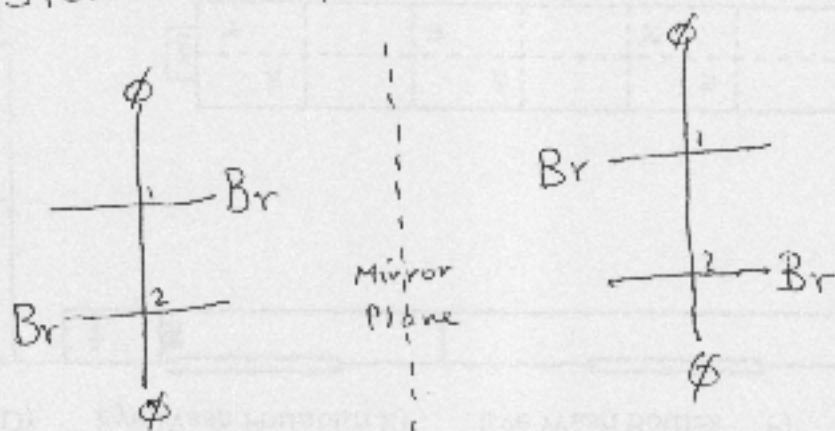
Br⁻ can attack from below at either C#1 or 2



leading to two possible products



Stereochimistry of two possible products



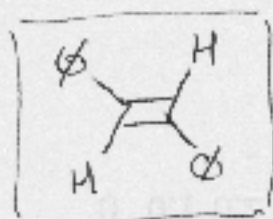
Fisher projection for two possible products

They are non-superimposable mirror images =

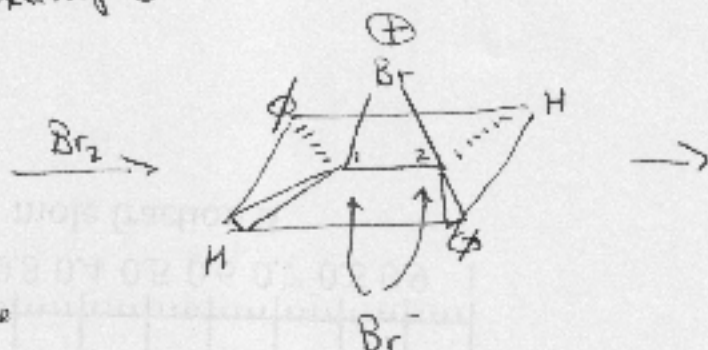
Enantiomers

50:50 mixture = racemic mixture

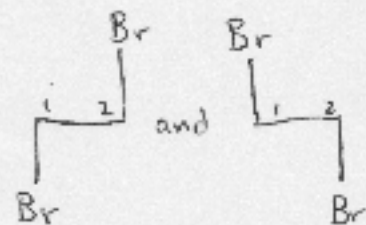
trans-Alkene example



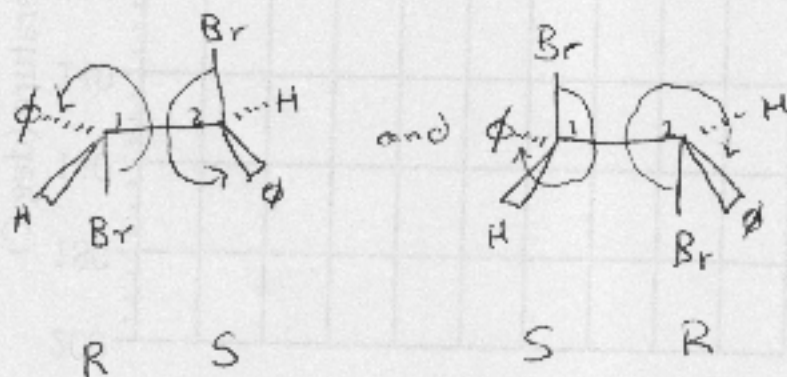
trans-stilbene is planar



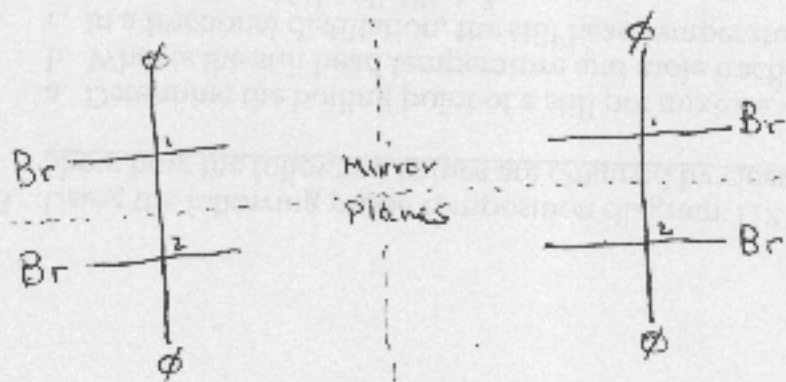
Br^- can attach from below at either C#1 or 2



leading to two possible products



Stereochemistry of two possible products



Fisher projection - for two possible products

Mirror images are superimposable = only one compound is present.
 Internal mirror plane = non optically active as two halves of molecule cancel each other.

Meso compound = single, non optically active compound is formed